Study Title

Compositional Analyses of Canola Seed Collected from MON 88302 Grown in the United States and Canada during the 2009 Growing Season

Authors

[redacted]

Study Completed On

March 11, 2011

Sponsor and Performing Laboratories

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Laboratory Project ID

MSL0022806
Monsanto Study No. REG-10-045
Covance Study No. 8224-999

The text below applies only to use of the data by the United States Environmental Protection Agency (U.S. EPA) in connection with the provisions of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

The inclusion of this page in all studies is for quality assurance purposes and does not necessarily indicate that this study has been submitted to the U.S. EPA.

Statement of No Data Confidentiality Claim

No claim of data confidentiality is made for any information contained in this study on the basis of its falling within the scope of FIFRA § 10(d)(1)(A), (B), or (C).

We submit this material to the U.S. EPA specifically under the requirements set forth in FIFRA as amended, and consent to the use and disclosure of this material by the EPA strictly in accordance with FIFRA. By submitting this material to the EPA in accordance with the method and format requirements contained in PR Notice 86-5, we reserve and do not waive any rights involving this material that are or can be claimed by the company notwithstanding this submission to the EPA.

Company: Monsanto Company_____

Company Agent: _____

Title: _____

Signature: _____ Date:_____

Statement of Compliance

This study meets the U.S. EPA Good Laboratory Practice requirements as specified in 40 CFR Part 160 with the following exceptions:

- The reference standards used for compositional analysis were not listed in the protocol or characterized according to GLP standards and reserve samples from each batch of the reference standards were not retained. These exceptions had no effect on the integrity or quality of the study because the reference standards were accompanied by Certificates of Analysis.

- Stability of the compositional components in the test, control, and reference substances was not determined. This exception had no effect on the integrity or quality of the study because the samples were maintained at approximately –20°C throughout the duration of the study.

Submitter Date

[redacted]

Sponsor Representative

[redacted]

Study Director

Quality Assurance Statement

Study Title: Compositional Analyses of Canola Seed Collected from MON 88302 Grown in the United States and Canada during the 2009 Growing Season

Study Number: REG-10-045

Reviews conducted by the Quality Assurance Unit confirm that the final report accurately describes the methods and standard operating procedures followed, and accurately reflects the raw data for the portion of the study conducted by Monsanto Company. This confirmation excludes the following data:

* Composition analytical data from Covance Laboratories Inc.

Reviews conducted by Covance Laboratories Inc. are enclosed within the Covance Laboratories Inc. analytical sub-report and are specified on their individual QA Statement.

Following is a list of reviews conducted by the Monsanto Regulatory Quality Assurance Unit on the study reported herein.

Dates of Inspection / Audit	Phase	Date Reported To:	
		Study Director	Management
10/11/2010	Raw Data and Draft Report Review	10/20/2010	10/20/2010
10/11/2010	Statistical Data and Draft Report Review	10/20/2010	10/20/2010

[redacted]

Monsanto Regulatory, Monsanto Company

Study Certification

This report is an accurate and complete representation of the study/project activities.

Signature of Final Report Approval:

[redacted]

Study Director

Study Information

Study Number: REG-10-045

Study Title: Compositional Analyses of Canola Seed Collected from MON 88302 Grown in the United States and Canada during the 2009 Growing Season

Primary Testing Facility: Monsanto Company
Product Safety Center
800 North Lindbergh Blvd.
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Study Director: [redacted]

Supervisory Team Lead: [redacted]

Sponsor Representative: [redacted]

Principal Investigators: [redacted] (Covance Laboratories Inc.)
(Certus International, Inc.)

Contributor: [redacted] (Statistics Technology Center)

Study Initiation Date: March 15, 2010

Report Completion Date: March 11, 2011

Records Retention: The protocol, raw data, documentation, records, and final report for this study are retained at Monsanto Company. Raw data are also retained at Covance laboratories Inc.

Sample Storage: Any unused study samples will be stored at Covance until their final disposition is directed by the Study Director at a future date.

Study Information (continued)

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Abbreviations

AA	amino acid
ADF	acid detergent fiber
a.e.	acid equivalents
C8-C24	8-24 carbon-chain fatty acids
dw	dry weight
EPSPS	5-enolpyruvylshikimate-3-phosphate synthase
FA	fatty acid
fw	fresh weight
GLP	good laboratory practice
ID	identification
ILSI	International Life Sciences Institute
ILSI-CCDB	International Life Sciences Institute Crop Composition Database
LOQ	limit of quantitation
NDF	neutral detergent fiber
OECD	Organisation for Economic Co-operation and Development
PCR	polymerase chain reaction
PRESS	predicted residual sum of squares
QAU	quality assurance unit
RR	Roundup Ready
SOP	standard operating procedure
T/C/R	test/control/reference
TDF	total dietary fiber

1.0 Summary

Monsanto Company has developed a second generation herbicide-tolerant canola product, MON 88302 that allows a glyphosate application from emergence to first flowering at a rate up to 1800 g a.e. per hectare. With an increased window of application and higher spray rates, MON 88302 will provide superior weed control compared to the commercial first generation Roundup Ready® (RR) canola product RT73 (also referred to as GT73). MON 88302 contains the *5-enolpyruvylshikimate-3-phosphate synthase* gene derived from *Agrobacterium sp*. strain CP4 (*cp4 epsps*). Expression of the gene product (CP4 EPSPS) renders the plant tolerant to glyphosate, the active ingredient in the Roundup® family of agricultural herbicides.

The purpose of this study was to evaluate the composition of MON 88302, both treated with glyphosate and untreated, compared to an untreated conventional control that has a genetic background similar to MON 88302, but does not contain the *cp4 epsps* gene. Seven untreated commercial canola varieties were included as references to provide data for the development of a 99% tolerance interval for each component analyzed. Compositional analyses were conducted on whole seed collected from MON 88302, the conventional control, and commercial references grown in the U.S. and Canada during 2009. MON 88302 plants were grown both in the absence and presence of glyphosate treatment. The conventional control and commercial references were grown in the absence of glyphosate treatment. MON 88302, the conventional control, and commercial references were grown concurrently in replicated plots at two U.S. sites [Wilkin County, MN (MNCA) and McHenry County, North Dakota (NDVA)] and three Canadian sites [Portage la Prairie, Manitoba (MBPL); Newton, Manitoba (MBNW); and Saskatoon, Saskatchewan (SKSA)]. Composition analyses of the whole seed samples included proximates (ash, fat, moisture, and protein), carbohydrates by calculation, acid detergent fiber (ADF), neutral detergent fiber (NDF), total dietary fiber (TDF), amino acids, fatty acids (C8-C24, including erucic acid), glucosinolates, phytic acid, sinapic acid, vitamin E (α-tocopherol), and minerals (calcium, copper, iron, magnesium, manganese, phosphorus, potassium, sodium, and zinc).

In all, 70 different biochemical components were measured. Of the evaluated components, 18 fatty acids (including 22:1 erucic acid) and one mineral had more than 50% of the observations below the assay limit of quantitation (LOQ) and as a result, were excluded from the statistical analyses. Therefore, statistics were provided for 51 components for both glyphosate-treated and untreated samples.

For MON 88302, both glyphosate-treated and untreated, six sets of statistical comparisons were conducted between MON 88302 and the conventional control. One comparison was based on data from a combination of all five field sites (referred to as the

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combined-site analysis), and five comparisons were based on data from each individual field site. The level of significant difference was predetermined to be 5% ($\alpha = 0.05$).

The overall data set was examined for evidence of relevant changes by first examining statistically significant combined-site differences for the magnitude and direction of the change, followed by a comparison of MON 88302 mean component values to the natural variability of canola composition as expressed by the 99% tolerance interval determined from the commercial references, and by assessing the reproducibility of the difference across all individual sites. Finally, the statistically significant differences were compared to the natural variability seen in conventional canola as published in the scientific literature.

Statistical analyses of the combined-site compositional data identified that for 42 of the 51 comparisons (82.4%) made between MON 88302 not treated with glyphosate and the untreated conventional control, mean component values were not statistically significantly different ($p>0.05$). No differences were identified for the following nutrients: proximates, carbohydrates by calculation, fiber, amino acids, 16:0 palmitic acid, 16:1 palmitoleic acid, 24:0 lignoceric acid, 24:1 nervonic acid, copper, iron, magnesium, manganese, phosphorus, potassium, zinc, and vitamin E, and no differences were identified for the anti-nutrients including alkyl glucosinolates, indolyl glucosinolates, total glucosinolates, and sinapic acid. Statistically significant differences ($p<0.05$) were observed for eight nutrients (seven fatty acids and one mineral) as follows:18:0 stearic acid, 18:1 oleic acid, 18:2 linoleic acid, 18:3 linolenic acid, 20:0 arachidic acid, 20:1 eicosenoic acid, 22:0 behenic acid, and calcium, and for one anti-nutrient, phytic acid. The mean fatty acid values for 18:0 stearic acid, 18:1 oleic acid, 20:0 arachidic acid, and 22:0 behenic acid were observed to be lower (13.92%, 4.55%, 9.14%, and 4.58%, respectively) in MON 88302 not treated with glyphosate compared to the untreated conventional control, and the mean fatty acid values for 18:2 linoleic acid, 18:3 linolenic acid, and 20:1 eicosenoic acid were observed to be higher (9.60%, 18.19%, and 4.91%, respectively) in MON 88302 not treated with glyphosate compared to the untreated conventional control values. The mean calcium value was observed to be higher (7.33%) for MON 88302 untreated with glyphosate compared to the untreated conventional control value. One anti-nutrient, phytic acid, was observed to be statistically different in the combined-site analysis. The mean phytic acid value was observed to be lower (8.54%) for MON 88302 untreated with glyphosate compared to the untreated conventional control value. These nutrient and anti-nutrient statistically significant differences were relatively small (4.55 – 18.19%) when considered in relation to the natural variability as determined by the 99% tolerance interval established by the concurrently grown reference varieties with a history of safe consumption. Each MON 88302 mean analyte value was within the 99% tolerance interval established for the conventional references grown concurrently, and within published literature ranges for conventional canola seed. Based on these results, the statistically significant differences identified between MON 88302 not treated with glyphosate and the untreated

conventional control for nutrient and anti-nutrient components in the combined-site data set were within the natural population of canola, and were not regarded as meaningful from a food and feed safety or nutritional perspective.

Statistical analyses of the combined-site compositional data identified that for 42 of the 51 comparisons (82.4%) made between MON 88302 treated with glyphosate and the untreated conventional control, mean component values were not statistically significantly different ($p>0.05$). No differences were identified for the following nutrients: proximates, ADF, NDF, amino acids, 16:0 palmitic acid, 20:1 eicosenoic acid, 24:0 lignoceric acid, 24:1 nervonic acid, calcium, copper, iron, magnesium, manganese, phosphorus, potassium, zinc and vitamin E, and no differences were identified for the anti-nutrients including indolyl glucosinolates, and total glucosinolates, phytic acid, and sinapic acid. Statistically significant differences ($p<0.05$) were observed for eight nutrients that included TDF, 16:1 palmitoleic acid, 18:0 stearic acid, 18:1 oleic acid, 18:2 linoleic acid, 18:3 linolenic acid, 20:0 arachidic acid, and 22:0 behenic acid, and for one anti-nutrient, alkyl glucosinolates. The mean TDF value was higher (13.81%) in MON 88302 treated with glyphosate compared to the untreated conventional control. The mean fatty acid values for 16:1 palmitoleic acid, 18:0 stearic acid, 18:1 oleic acid, 20:0 arachidic acid, and 22:0 behenic acid, were observed to be lower (7.56%, 15.06%, 4.52%, 10.68%, and 6.01%, respectively) in MON 88302 treated with glyphosate compared to the untreated conventional control, and the mean analyte values for 18:2 linoleic acid and 18:3 linolenic acid were observed to be higher (8.98% and 20.01%, respectively) in MON 88302 treated with glyphosate compared to the untreated conventional control. The relative magnitudes of differences between test and control mean values for these statistically significant nutrient differences were small (-4.52 – 20.01%) when considered in relation to the natural variability as determined by the 99% tolerance interval established by the concurrently grown reference varieties with a history of safe consumption. Each MON 88302 mean analyte value was within the 99% tolerance interval established for the conventional references grown concurrently, and within published literature ranges for conventional canola seed. One anti-nutrient, alkyl glucosinolates, was observed to be statistically significantly different in the combined-site analysis. Although the relative magnitude of difference between the MON 88302 and control mean value was 27.59% lower, the MON 88302 mean value was within the 99% tolerance interval for the conventional reference varieties. Based on these results, the statistically significant differences identified between MON 88302 treated with glyphosate and the untreated conventional control for nutrient and anti-nutrient components in the combined-site data set were within the natural population of canola, and were not regarded as meaningful from a food and feed safety or nutritional perspective.

Compositional analyses of whole seed comparing MON 88302, both glyphosate-treated and untreated, to the untreated conventional control confirmed that there are no meaningful differences for proximates, fiber, amino acids, vitamins, minerals, phytic

acid, sinapic acid, and glucosinolates from a food and feed safety or nutritional perspective. Canola seed produced from MON 88302, both treated with glyphosate and untreated, are compositionally equivalent to conventional canola seed.

2.0 Introduction

Monsanto Company has developed a second generation herbicide-tolerant canola product, MON 88302 that allows a glyphosate application from emergence to first flowering at a rate up to 1800 g a.e. per hectare. With an increased window of application and higher spray rates, MON 88302 will provide superior weed control compared to the commercial first generation Roundup Ready® (RR) canola product RT73 (also referred to as GT73). MON 88302 contains the *5-enolpyruvylshikimate-3-phosphate synthase* gene derived from *Agrobacterium sp*. strain CP4 (*cp4 epsps*). Expression of the gene product (CP4 EPSPS) renders the plant tolerant to glyphosate, the active ingredient in the Roundup® family of agricultural herbicides.

3.0 Purpose

The purpose of this study was to evaluate the composition of MON 88302, both treated with glyphosate and untreated, compared to an untreated conventional control that has a genetic background similar to MON 88302, but does not contain the *cp4 epsps* gene. Seven untreated commercial canola varieties were included as references to provide data for the development of a 99% tolerance interval for each component analyzed. Composition analyses were conducted on whole seed collected from the MON 88302, the conventional control, and commercial references grown in the U.S. and Canada during 2009.

4.0 Test, Control, and Reference (T/C/R) Substances

4.1 Test Substance

The test substance was MON 88302, Lot Number 11225246. Whole seed collected from glyphosate-untreated and glyphosate-treated plants was evaluated in this study.

4.2 Control Substance

The control substance was Ebony, Lot Number 11225244, a conventional canola variety that has a similar genetic background to MON 88302 but does not contain the glyphosate tolerant gene, *cp4 epsps*. Whole seed collected from the control plants was evaluated in this study.

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4.3 Reference Substances

The reference substances were conventional commercial canola varieties. Seven different varieties were grown at a total of five field sites. Whole seed collected from the reference substances was evaluated in this study.

Material Name	Seed Lot Number	Field Site Codes[1]
Q2	10001931	MBPL, MBNW, SKSA, NDVA, MNCA
Hyola 401	10001850	NDVA, MBPL, SKSA
Croplan 601	10001849	MBPL, SKSA, NDVA
SP Armada	10001932	MBPL, SKSA, NDVA
SValof Sponsor	10002116	MNCA, MBNW
SValof Senator	10002115	MNCA, MBNW
DSV Ability	10002117	MNCA, MBNW

[1]Field sites described in Section 5.0.

4.4 T/C/R Substance Characterization

The identities of MON 88302, the conventional control, and commercial references were confirmed by verifying the chain of custody documentation prior to analysis. To further confirm the identities of MON 88302, the conventional control, and commercial references, event-specific polymerase chain reaction (PCR) analyses were conducted on the harvested seed from each site. The PCR analyses and the resulting Verification of Identity documents were archived in the Monsanto Regulatory Archive under the starting seed lot numbers.

All samples of MON 88302, conventional control, and commercial references containing ≤3.05% unintended traits were regarded as acceptable for use in this study. Based on PCR results, all tested samples were acceptable and included in the compositional analyses, with the exception of the following: one replicate of glyphosate-treated MON 88302 at MNCA and SKSA sites and two replicates at NDVA site; one replicate of glyphosate-untreated MON 88302 at MBPL and SKSA sites, and two replicates at MBNW site; one replicate of Ebony at NDVA, MBNW, and MBPL sites; two replicates of SP Armada at NDVA site; one replicate of Q2 and Hyola 401 at MBPL site; and one replicate of DSV Ability at MBNW site.

5.0 Field Trial Description

Seed of the MON 88302, the conventional control and commercial references was collected from replicated plots at each of two U.S. sites [Wilkin County, MN (MNCA); and McHenry County, North Dakota (NDVA)] and three Canadian sites [Portage la Prairie, Manitoba (MBPL); Newton, Manitoba (MBNW); and Saskatoon, Saskatchewan

(SKSA)]. Seeds were planted in a randomized complete block design with four replicate blocks for each material. All materials were grown under normal agronomic field conditions for their respective geographic regions. MON 88302 plants were grown both in the presence and absence of glyphosate treatment. The conventional control and commercial references were grown in the absence of glyphosate treatment.

Seed samples were harvested from all plots and shipped at ambient temperature to Monsanto Company, St. Louis, MO. A sub-sample for composition analysis was obtained from each sample collected. These sub-samples were then ground and stored in a freezer set to maintain a temperature of –20 °C until their shipment on dry ice to Covance Laboratories Inc. (Madison, WI) for analysis. The label on the shipped samples contained the source company name, study number, container type, sample/tissue type, crop type, unique sample ID number, material name, MON #, site ID, plot number, entry number, grain source ID number, and storage conditions.

6.0 Analytical Methods

A total of 123 whole seed samples were analyzed by Covance Laboratories Inc. for levels of proximates (ash, fat, moisture, and protein), carbohydrates by calculation, acid detergent fiber (ADF), neutral detergent fiber (NDF), total dietary fiber (TDF), amino acids, fatty acids (C8-C24, including erucic), glucosinolates (alkyl, indolyl and total), phytic acid, sinapic acid, vitamin E (α-tocopherol), and minerals (calcium, copper, iron, magnesium, manganese, phosphorus, potassium, sodium, and zinc). Analyzed components were selected based on recommendations for whole canola seed specified by the OECD (OECD, 2001). Each analysis was based on published methods that were approved by the Study Director. The analytical data generated by Covance Laboratories Inc., including a summary of the methods used, Covance SOP or method mnemonics, literature references, limits of quantitation, and the reference standards used can be found in the analytical sub-report in Appendix 1 (Covance Laboratories Inc. study number 8224-999).

7.0 Control of Bias

Samples were analyzed in the order specified by a computer-generated randomized list. The Study Director generated the randomized sample list and forwarded it to Covance Laboratories Inc. prior to analysis.

8.0 Statistical Analysis

8.1 Data Processing

After composition analyses were performed at Covance, data spreadsheets were forwarded to Monsanto Company. The data were reviewed, formatted, and sent to Certus International, Inc. for statistical analyses. A statistical sub-report was generated by Certus International, Inc. and sent to Monsanto Company (see Appendix 2).

The following formulas were used for re-expression of composition data for statistical analyses:

Component	From (X)	To	Formula[1]
Proximates (excluding Moisture), Fiber, Phytic Acid	% fw	% dw	X/d
Alkyl Glucosinolate, Indolyl Glucosinolate, Total Glucosinolate	µmole/g fw	µmole /g dw	X/d
Sinapic Acid	ppm fw	% dw	$X/(10^4 d)$
Calcium, Magnesium, Phosphorus, Potassium, Sodium	ppm fw	g/100g dw	$X/(10^4 d)$
Copper, Iron, Manganese, Zinc	ppm fw	mg/kg dw	X/d
Vitamin E	mg/100g fw	mg/100g dw	X/d
Amino Acids (AA)	mg/g fw	% dw	X/(10d)
Fatty Acids (FA)	% fw	% Total FA	$(100)X_j/\Sigma X$, for each FA_j where ΣX is over all the FA
[1] 'X' is the individual sample value; 'd' is the fraction of the sample that is dry matter.			

In order to complete a statistical analysis for a compositional component in this study, at least 50% of the values for a component had to be greater than the assay limit of quantitation (LOQ). Components with more than 50% of observations below the assay LOQ were excluded from summaries and analysis. The following 19 components with more than 50% of the observations below the assay LOQ were excluded: 8:0 caprylic acid, 10:0 capric acid, 12:0 lauric acid, 14:0 myristic acid, 14:1 myristoleic acid, 15:0 pentadecanoic acid, 15:1 pentadecenoic acid, 17:0 heptadecanoic acid, 17:1 heptadecenoic acid, 18:3 gamma-linolenic acid, 18:4 octadecatetraenoic acid; 20:2 eicosadienoic acid, 20:3 eicosatrienoic acid, 20:4 arachidonic acid, 20:5 eicosapentaenoic acid, 22:1 erucic acid, 22:5 docosapentaenoic acid, 22:6 docosahexaenoic acid, and sodium.

If less than 50% of the observations for a component were below the LOQ, individual analyses that were below the LOQ were assigned a value equal to one-half the LOQ. In this study 24 values for 24:0 lignoceric acid and 34 values for 24:1 nervonic acid were assigned a value of 0.02% fw.

PRESS residuals were used to identify outliers. A PRESS residual is the difference between any value and its predicted value from a statistical model that excludes the data point. The studentized version scales these residuals so that the values tend to have a standard normal distribution when outliers are absent. Thus, most values are expected to be between ± 3. Extreme data points that are also outside of the ± 6 studentized PRESS residual range are considered for exclusion, as outliers, from the final analyses. The following results had PRESS residual values outside of the ± 6 range:

Site	Rep	Substance	Component	ID	Sent Value	Value	PRESS Std Residual
Seed Proximate							
MBNW	1	SValof Sponsor	Carbohydrates	11254131	35.5	37.2703	8.6178
MBNW	1	SValof Sponsor	Total Fat	11254131	35.3	37.0604	-8.2888
Seed Fatty Acid							
MNCA	4	MON 88302 (Untreated)	18:3 Linolenic	11248634	2.75	6.8325	-11.8302
Seed Anti-nutrient							
MBPL	3	Croplan 601	Alkyl Glucosinolate	11248704	23.6	24.9762	6.0224
MBPL	3	Croplan 601	Total Glucosinolate	11248704	27.0	28.5745	6.2455

The flagged carbohydrates and total fat values were extreme and were removed from further analysis as outliers. The flagged 18:3 linolenic value was an extreme value but was not removed because it did not appear to be dramatically different from other nearby data values. The alkyl glucosinolate and total glucosinolate values were not extreme and were not removed. The outlier test was reapplied to the remaining data of all components for which an outlier was removed to detect potential outliers that were masked in the first analysis. No additional results were flagged as potential outliers.

8.2 Statistical Methodology

All canola components were statistically analyzed using a mixed model analysis of variance. The five replicated field sites were analyzed individually and as a combined data set. Individual replicated site analyses used model (1).

(1) $Y_{ij} = U + T_i + B_j + e_{ij}$,

where Y_{ij} = unique individual observation, U = overall mean, T_i = substance effect, B_j = random block effect, and e_{ij} = residual error.

Combined-site analyses used model (2).

(2) $Y_{ijk} = U + T_i + L_j + B(L)_{jk} + LT_{ij} + e_{ijk}$,

where Y_{ijk} = unique individual observation, U = overall mean, T_i = substance effect, L_j = random site effect, $B(L)_{jk}$ = random block within site effect, LT_{ij} = random site by substance interaction effect, and e_{ijk} = residual error.

For each compositional component, a 99% tolerance interval was calculated. A tolerance interval is an interval that one can claim, with a specified degree of confidence, contains at least a specified proportion, p, of an entire sampled population for the parameter measured. The calculated tolerance intervals in this study are expected to contain, with 95% confidence, 99% of the quantities expressed in the population of conventional

canola. Each tolerance interval estimate was based upon the average observation for each unique reference substance. Because negative quantities are not possible, negative calculated lower tolerance bounds were set to zero.

SAS® (SAS, 2002-2008) programming was used to generate all summary statistics and perform all analyses. Report tables present p-values from SAS as either <0.001 or the actual value truncated to three decimal places.

9.0 Results and Discussion

The composition of whole seed from MON 88302, both treated with glyphosate and untreated, was analyzed and statistically compared to the untreated conventional control, Ebony, that has a genetic background similar to the MON 88302, but does not contain the *cp4 epsps* gene. Tolerance intervals calculated from the conventional reference substances grown concurrently were also established for each compositional component. Seventy components were tested to determine the compositional profile of MON 88302, the conventional control and the commercial references. The compositional analysis data for MON 88302, both treated with glyphosate and untreated, the untreated conventional control, and the commercial references can be found in Appendix 1.

For MON 88302, both treated with glyphosate and untreated, six sets of statistical comparisons were conducted between MON 88302 and the conventional control. One comparison was based on data from a combination of all five field sites (referred to as the combined-site analysis), while five comparisons were based on the data from each individual replicated field sites. Of the 70 components analyzed, 18 fatty acids (including 22:1 erucic acid) and one mineral (sodium) had greater than 50% of the analytical values that were below the limit of quantitation. These components were not included in the statistical analyses. Therefore, statistics were provided for 51 components (the original 70 components minus the excluded 19 components). Statistically significant differences were determined at the 5% level of significance (α=0.05).

The overall data set was examined for evidence of relevant changes by first examining combined-site differences for the magnitude and direction of the change followed by a comparison of the MON 88302 mean values to the natural variability of canola composition as expressed by the 99% tolerance interval determined from the commercial references, and by assessing the reproducibility of the difference across all individual sites. Finally, the statistically significant differences were compared to the natural variability seen in conventional canola as is published in the scientific literature. Least square means, standard errors, and the range of observed values for MON 88302 and the conventional control are presented in Appendix 2. A summary of the significant differences ($p<0.05$) between MON 88302 not treated with glyphosate and the untreated

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control can be found in Table 1. A summary of the significant differences ($p<0.05$) between MON 88302 treated with glyphosate and the untreated control can be found in Table 2. Table 3 presents the ranges of conventional whole canola seed component values obtained from published scientific literature.

9.1 Results and Discussion of Glyphosate-Untreated MON 88302

Statistical analyses of the combined-site compositional data set showed that for 42 of the 51 comparisons (82.4%) made between MON 88302 not treated with glyphosate and the untreated control, mean component values were not statistically significantly different ($p>0.05$). No differences were identified for the following nutrients: proximates, carbohydrates by calculation, fiber, amino acids, 16:0 palmitic acid, 16:1 palmitoleic acid, 24:0 lignoceric acid, 24:1 nervonic acid, copper, iron, magnesium, manganese, phosphorus, potassium, zinc, and vitamin E, and no significant differences were identified for the anti-nutrients including alkyl glucosinolates, indolyl glucosinolates, total glucosinolates, and sinapic acid. Statistically significant differences ($p<0.05$) were observed for eight nutrients in whole seed, including 18:0 stearic acid, 18:1 oleic acid, 18:2 linoleic acid, 18:3 linolenic acid, 20:0 arachidic acid, 20:1 eicosenoic acid, 22:0 behenic acid, and calcium, and for one anti-nutrient, phytic acid. The relevance of the statistically significant differences ($p<0.05$) observed in the combined-site analysis was assessed based on the magnitude and direction of the change, comparison of the MON 88302 mean analyte values to the 99% tolerance interval for that component, reproducibility across individual sites, and comparison to published component values for conventional canola seed nutrients and anti-nutrient.

9.1.1 Nutrient Levels in Glyphosate-Untreated MON 88302 Eight of the nine statistically significant differences ($p<0.05$) identified in the combined-site analysis were small differences in levels of nutrients, including seven fatty acids (expressed as % total FA) and calcium (expressed as % dw). The mean fatty acid values for 18:0 stearic acid, 18:1 oleic acid, 20:0 arachidic acid, and 22:0 behenic acid were observed to be lower (13.92%, 4.55%, 9.14%, and 4.58%, respectively) in MON 88302 compared to the control values, and the mean analyte values for 18:2 linoleic, 18:3 linolenic, and 20:1 eicosenoic acid were observed to be higher (9.60%, 18.19%, and 4.91%, respectively) in MON 88302 compared to the control values. The mean calcium value was 7.33% higher than the control value. These significant nutrient differences are relatively small (4.55 - 18.19%) when considered in relation to the natural variability as determined by the 99% tolerance interval established by the concurrently grown reference varieties with a history of safe consumption. Each MON 88302 mean fatty acid value was within the 99% tolerance interval established for the conventional reference varieties grown concurrently. Each significantly different fatty acid was also observed to be significantly different across multiple individual sites (18:1 oleic and 18:2 linolenic at all five sites; 18:0 stearic, 18:3 linolenic, and 20:0 arachidic at four sites; 20:1 eicosenoic at three sites; and 22:0 behenic acids at two sites). However, the relative magnitude of individual site

differences (mathematical difference between the MON88302 mean value and the control mean value, as a percent of the control mean value) were small (3.46 – 5.48% lower for 18:1 oleic acid, 7.63 – 15.60% lower for 18:2 linoleic acid, 13.64 – 16.09% lower for 18:0 stearic acid, 17.06 – 22.94% higher for 18:3 linolenic acid, 7.39 – 12.21% lower for 20:0 arachidic acid, 4.93 – 6.85% higher for 20:1 eicosenoic acid, and 7.02 – 9.85% lower for behenic acid) when considered in relation to the natural variability as determined by the 99% tolerance interval. MON 88302 appears to produce lower levels of saturated fatty acids, and higher levels of polyunsaturated long carbon chain fatty acids than does the control. Canola oil is regarded as heart-healthy because it contains low saturated, high unsaturated levels of fatty acids, and MON 88302 is consistent with this trend. A significant difference for calcium was observed in the combined-site analysis and at one individual site; however, the magnitudes of the differences were small (7.33 and 8.00% higher, respectively) when considered in relation to the natural variability as determined by the 99% tolerance interval. All statistically significantly different individual site nutrient values for components observed to be significantly different in the combined-site, also were within the 99% tolerance interval and within published literature ranges for conventional canola, and thus, were within the range of natural variability in commercial canola varieties with a history of safe consumption. Based on these results, the statistically significant differences identified for canola nutrient components in the combined-site data set were within the natural population of canola, and were not regarded as meaningful from a food and feed safety or nutritional perspective.

Statistical analyses of the individual site data showed that for 451 (88.43%) of 510 comparisons made between MON 88302 not treated with glyphosate and the control, mean component values were not statistically significantly different ($p>0.05$). Of the 59 individual site statistically significant differences ($p<0.05$), 28 were for nutrients also observed to be significantly different in the combined-site analysis. The 31 additional individual site nutrient differences not observed in the combined-site analysis included vitamin E, acid detergent fiber, 16:1 palmitoleic acid, copper, iron, carbohydrates by calculation, total fat, neutral detergent fiber, TDF, tyrosine, 16:0 palmitic acid, 24:1 nervonic acid, and potassium. With the exception of vitamin E at five sites and nervonic acid at one site, the relative magnitudes of differences between the MON 88302 mean values and the control mean values were small (less than 20%) when considered in relation to the natural variability as determined by the 99% tolerance interval. The significant differences were not observed across all sites, and the MON 88302 mean values were within the 99% tolerance interval for the conventional reference varieties. At four of the five individual sites, the magnitudes of differences for vitamin E mean values between MON 88302 and the conventional control were 32.72 - 78.57% higher for MON 88302, but the values within the 99% tolerance interval. At the fifth site, the MON 88302 vitamin E mean value was 67.81% lower than the control vitamin E mean value, and below the 99% tolerance interval. The unusually low mean value observed for

vitamin E for MON 88302 at the SKSA site was attributed to environmental factors rather than to germplasm, because the low value was only observed at the SKSA site, and environmental influences are known to impact vitamin E levels in whole canola seed (Marwede, 2004). The MON 88302 mean value for 24:1 nervonic acid was 52.46% higher than the control mean value at one individual site (SKSA), but the value was within the 99% tolerance interval. A difference for copper was observed at the MNCA site, and the MON 88302 mean value was higher than the upper limit of the tolerance interval; however, no consistent trends or meaningful differences were observed across individual sites in the levels of nutrient components in whole seed from MON 88302 and the conventional control. Based on these results, the statistically significant differences identified for whole canola seed nutrient components in the individual site analyses were within the natural population of canola and are not meaningful, and whole seed nutrient levels in MON 88302 not treated with glyphosate are compositionally equivalent to levels in conventional whole canola seed.

9.1.2 Anti-nutrient Levels in Glyphosate-Untreated MON 88302

One anti-nutrient, phytic acid (expressed as % dw), was observed to be statistically significantly different ($p<0.05$) between MON 88302 and the control in the combined-site analysis. The magnitude of the difference between the mean MON 88302 and control values was small (8.54% lower) when considered in relation to the natural variability as determined by the 99% tolerance interval established by the concurrently grown reference varieties with a history of safe consumption. The mean phytic acid value was within the 99% tolerance interval for the conventional reference varieties, but was slightly lower than the published literature range for phytic acid in conventional canola seed. A difference for phytic acid was also observed at one individual site (NDVA), but the magnitude of the difference was small (16.21% lower) when considered in relation to the natural variability as determined by the 99% tolerance interval, and the mean phytic acid value was within the 99% tolerance interval for the conventional reference varieties. Thus, the value was within the range of natural variability in commercial canola varieties. Based on these results and the absence of reproducibility across individual sites, the statistically significant difference identified for the anti-nutrient, phytic acid, in the combined-site data set was not regarded as meaningful from a food and feed safety or nutritional perspective.

The individual site statistically significant differences ($p<0.05$) observed for anti-nutrients that were not identified in the combined-site analysis included sinapic acid, indolyl glucosinolates, alkyl glucosinolates, and total glucosinolates. The mean MON 88302 values for sinapic acid were 7.77 - 22.22% higher than the control values and were within tolerance intervals at four of the individual sites, but at the SKSA site the mean MON 88302 value for sinapic acid was 55.1% lower than the control value, and was below the 99% tolerance interval. The mean MON 88302 values for alkyl, indolyl and total glucosinolates were 26.96 - 44.41% lower than the control values, but were

within the 99% tolerance interval. No consistent trends or meaningful differences were observed across individual sites between the levels of anti-nutrient components in whole seed from MON 88302 not treated with glyphosate and the untreated conventional control.

A site trend was observed at the SKSA site. Although not identified as a significant difference in the combined-site analysis, MON 88302 sinapic acid mean values were significantly different from the control mean values at all individual sites. At four of the five sites the MON 88302 sinapic acid mean values were 7.77-23.22% higher than control mean values, but the SKSA site mean values for sinapic acid were lower than the control mean values (55.10%) and were below the 99% tolerance interval. Glucosinolate levels were also observed to be much lower in MON 88302 samples from the SKSA site. These lower values are more likely due to environmental factors than to the MON 88302 trait because the trend was only observed at the SKSA site, and environmental factors have been shown to influence whole seed levels of these two analytes (Naczk, 1998; Holst and Williamson, 2004) in conventional canola. All other individual site significant differences were within the 99% tolerance interval.

MON 88302 levels of erucic acid were below the level of detection, and mean values for total glucosinolate were below 10 µmoles/g dw, confirming that anti-nutrient levels for MON 88302 whole seed are characteristic of double-zero canola (less than 2% erucic acid and less than 30 µmoles/g dw glucosinolates) (OECD, 2001). Based on these results, the statistically significant differences identified for canola anti-nutrient components in the individual site data set were within the natural population of canola, and were not regarded as meaningful from a food and feed safety or nutritional perspective. These results support the conclusion that differences observed between MON 88302 and the conventional control are not meaningful, and canola produced from MON 88302 not treated with glyphosate is compositionally equivalent to conventional canola.

9.2 Results and Discussion of Glyphosate-Treated MON 88302

Statistical analyses of the combined-site compositional data identified that for 42 of the 51 comparisons (82.4%) made between MON 88302 treated with glyphosate and the untreated conventional control, mean component values were not statistically significantly different ($p>0.05$). No differences were identified for the following nutrients: proximates, ADF, NDF, amino acids, 16:0 palmitic acid, 20:1 eicosenoic acid, 24:0 lignoceric acid, 24:1 nervonic acid, calcium, copper, iron, magnesium, manganese, phosphorus, potassium, zinc and vitamin E, and no differences were identified for the anti-nutrients including indolyl glucosinolates, total glucosinolats, phytic acid, and sinapic acid. Statistically significant differences ($p<0.05$) were observed for the following eight nutrients: TDF, 16:1 palmitoleic acid, 18:0 stearic acid, 18:1 oleic acid, 18:2 linoleic acid, 18:3 linolenic acid, 20:0 arachidic acid, and 22:0 behenic acid, and for

one anti-nutrient, alkyl glucosinolate. The relevance of the significant differences ($p<0.05$) observed in the combined-site analysis was assessed based on the magnitude and direction of the difference from the control mean value, comparison of the MON 88302 mean analyte values to the 99% tolerance interval for that component, reproducibility across individual sites, and comparison to published component values for conventional whole canola seed nutrients and anti-nutrients.

9.2.1 Nutrient Levels in Glyphosate-Treated MON 88302

Eight of the nine statistically significant differences ($p<0.05$) observed in the combined-site analysis were in levels of nutrients, including TDF (expressed as % dw) and seven fatty acids (expressed as % total FA). The mean TDF value was 13.81% higher in glyphosate-treated MON 88302 compared to the control. The difference between the MON 88302 mean TDF value and control mean TDF value was small in relation to the natural variability determined by the 99% tolerance interval established by the concurrently grown reference varieties with a history of safe consumption. The difference was not observed at any individual site, and the value was within the 99% tolerance interval. The fatty acid values for 16:1 palmitoleic acid, 18:0 stearic acid, 18:1 oleic acid, 20:0 arachidic acid, and 22:0 behenic acid, were observed to be lower (7.56%, 15.06%, 4.52%, 10.68%, and 6.01%, respectively) in MON 88302 compared to the control values, and the mean analyte values for 18:2 linoleic acid and 18:3 linolenic acid were observed to be higher (8.98% and 20.01%, respectively) in MON 88302 compared to the control values. The relative magnitude of difference between MON 88302 and control mean values for these statistically significant nutrient differences were small (-4.52 – 20.01%), and each MON 88302 mean analyte value was within the 99% tolerance interval established for the conventional reference varieties and within the available published literature ranges for conventional canola. Each statistically significant difference observed for fatty acids in the combined-site analysis was also significantly different across multiple individual sites (18:0 stearic acid, 18:1 oleic acid, and 18:2 linoleic acid at five sites; 16:1 palmitoleic acid and 18:3 linolenic acid at four sites; 20:0 arachidic acid at three sites; and 22:0 behenic acid at two sites). However, the relative magnitudes of individual site differences between the MON 88302 mean fatty acid value and the control mean fatty acid value were small (10.01 – 20.14% lower for 18:0 stearic acid, 3.48 – 5.75% lower for 18:1 oleic acid, 6.50 – 13.67% higher for 18:2 linoleic acid, 9.71 – 11.05% lower for 16:1palmitoleic acid, 13.27 – 28.69 % higher for 18:3 linolenic acid, 11.73 – 13.28% lower for 20:0 arachidic acid, and 9.83 – 13.00 % lower for 22:0 behenic acid) when considered in relation to the natural variability determined by the 99% tolerance interval. MON 88302 appears to produce lower levels of saturated fatty acids, and higher levels of polyunsaturated long chain carbon fatty acids than does the control. Canola oil is regarded as heart-healthy because it contains low levels of saturated fatty acids and high levels of unsaturated fatty acids, and MON 88302 is consistent with this trend. All statistically significantly different individual site nutrient values for components observed to be significantly different in the combined-site

were within the 99% tolerance interval and within published literature ranges for conventional canola, and thus, were within the range of natural variability in commercial canola varieties with a history of safe consumption. Based on these results, the significant differences identified for canola nutrient components in the combined-site data set were within the natural population of canola, and were not regarded as meaningful from a food and feed safety or nutritional perspective.

Statistical analyses of the individual-site data showed that for 448 (87.8%) of 510 comparisons made between MON 88302 treated with glyphosate and the untreated control, mean component values were not statistically significantly different ($p>0.05$). Of the 62 individual site significant differences, 28 were for nutrients also observed to be significantly different in the combined-site analysis. The 26 additional individual site difference not observed in the combined-site analysis included vitamin E, copper, iron, potassium, zinc, carbohydrates by calculation, moisture, protein, total fat, ADF, NDF, tyrosine, valine 16:0 palmitic acid, 20:1 eicosenoic acid, 24:0 lignoceric acid, and 24:1 nervonic acid. With the exception of vitamin E, zinc, and 24:1 nervonic acid, these differences were not observed consistently across all sites, the relative magnitudes of differences between test and control were small (below 20%) when considered in relation to the natural variability as determined by the 99% tolerance interval, and the MON 88302 mean values were within the 99% tolerance interval for the conventional reference varieties grown concurrently. A statistically significant difference was observed for vitamin E at all five individual sites. The relative magnitudes of differences between MON 88302 and the conventional control for vitamin E was 23.73–68.39% higher at four sites and 78.47% lower at one site. The relative magnitude of difference between MON 88302 and the conventional control for zinc and 24:1 nervonic acid were 25.6% higher and 20.37% lower, respectively, at one site. Except for vitamin E at site SKSA, the mean individual site significantly different mean component values for MON 88302 were within the 99% tolerance interval. The unusually low mean value observed for vitamin E in MON 88302 at the SKSA site is more likely due to environmental factors than to germplasm because the low value was only observed at the SKSA site, and environmental influences are known to impact vitamin E levels in canola seed (Marwede, 2004). Based on these results, the statistically significant differences identified for canola nutrient components in the individual site analyses were within the natural population of canola, or were not regarded as meaningful from a food and feed safety or nutritional perspective, and levels of nutrients from MON 88302 treated with glyphosate are compositionally equivalent to conventional canola nutrient levels.

9.2.2 Anti-nutrient Levels in Glyphosate-Treated MON 88302

One anti-nutrient, alkyl glucosinolate (expressed as µmoles/g dw), was observed to be statistically significantly different ($p<0.05$) in the combined-site analysis. The relative magnitude of difference between the mean MON 88302 and control values was 27.59% lower; however, the MON 88302 mean value was within the 99% tolerance interval for

the conventional reference varieties. There were no comparative values for alkyl glucosinolates published in the scientific literature. A difference for alkyl glucosinolates was also observed at one individual site (SKSA). Although the relative magnitude of difference was large (72.32% lower), the mean component value fell within the 99% tolerance interval for the conventional reference varieties, indicating the value was within the range of natural variability in commercial canola varieties. Based on these results, the statistically significant difference identified for canola anti-nutrients in the combined-site data set was within the natural population of canola, and was not regarded as meaningful from a food and feed safety or nutritional perspective.

Statistical analysis of the individual site data revealed eight additional statistically significant differences ($p<0.05$) for whole seed anti-nutrients. The statistically significant differences observed for anti-nutrients that were not identified in the combined site analysis included sinapic acid, indolyl glucosinolates, and total glucosinolats. Sinapic acid was significantly different across all individual sites, and had a relatively large magnitude of difference between test and control at two sites (23.56% higher at NDVA and 73.12% lower at SKSA). Glucosinolates (indolyl and total) were significantly different at one individual site (more than 72% lower at SKSA). Except for sinapic acid and indolyl glucosinolates at site SKSA, the MON 88302 mean values for anti-nutrient differences at the individual sites were within the 99% tolerance interval. The very low values observed for sinapic acid and glucosinolates at SKSA site appear to be an environmental effect based on overall trends observed for components at that site, and on known environmental influences on phytic acid and glucosinolate levels in conventional canola seed (Naczk, 1998; and Holst and Williamson, 2004). Based on these results, no meaningful differences were observed across sites in the levels of anti-nutrient components in seed from MON 88302 and the conventional control. Thus, evaluation of anti-nutrient components in grain support the conclusion that MON 88302 is compositionally equivalent to conventional canola.

A trend was observed for sinapic acid, and glucosinolates at the SKSA site. Although not identified as a significant difference in the combined-site analysis, MON 88302 sinapic acid mean values were significantly different from the control mean values at all individual sites, and all MON 88302 glucosinolates mean values at the SKSA site were identified as significantly different from the control mean values. At four of the five individual sites the MON 88302 sinapic acid mean values were 10 - 24% higher than control mean values, but the MON 88302 sinapic acid mean value at the SKSA site was 78.47% lower than the control mean value and below the 99% tolerance interval. These unusually low values for sinapic acid and glucosinolates are more likely due to environmental factors than to germplasm because the trend was only observed at the SKSA site, and environmental influences are known for these components in canola seed (Naczk, 1998; Holst and Williamson, 2004). All other individual site significant differences were within the 99% tolerance interval.

MON 88302 levels of erucic acid were below the level of detection, and mean values for total glucosinolate were below 10 µmoles/g dw, confirming that MON 88302 whole seed anti-nutrient levels are characteristic of double-zero canola. Based on these results, the statistically significant differences identified for canola anti-nutrient components in the individual site data were within the natural population of canola, and were not regarded as meaningful from a food and feed safety or nutritional perspective. These results support the conclusion that statistically significant differences observed between MON 88302 and the conventional control are not meaningful, and canola seed produced from glyphosate-treated MON 88302 is compositionally equivalent to conventional canola seed.

10.0 Conclusions

Composition analyses were conducted on MON 88302 and control canola produced at five sites in 2009 U.S. and Canada field trials. Comparison of glyphosate-treated and untreated MON 88302 nutrient and anti-nutrient whole seed component values to the untreated conventional control nutrient and anti-nutrient whole seed component values confirmed that there are no meaningful differences from a food and feed safety or nutritional perspective for proximates, fiber, amino acids, fatty acids, vitamins, minerals, phytic acid, sinapic acid, and glucosinolates. Canola seed produced from MON 88302, both glyphosate-treated and untreated are compositionally equivalent to conventional canola seed.

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12.0 Protocol Amendments/Deviations

There were three protocol amendments in this study. The protocol was amended to correct the method mnemonic cited for analysis of acid detergent fiber and neutral detergent fiber. The Ankom filter bag method was approved for use in the study, but the crucible digestion method was cited in the protocol. The protocol was also amended to exclude all data generated from samples collected at the IDAF site. The Idaho site experienced a late planting, multiple late-season frosts, and poor pod fill, which resulted in immature grain. Samples from the IDAF site were analyzed for compositional components, and raw data are retained in the Covance archive, but the data were rejected as non-representative of mature canola seed, and were not reported or subjected to statistical analysis. A third protocol amendment was written to correct the field sites assigned to Hyola 401 in the listing of reference substances. These changes to the protocol had no negative impact on the study.

There were no protocol deviations in this study.

Table 1. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Untreated Test) vs. Ebony (Control)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in Combined-Site Analysis						
Seed Fatty Acid (% Total FA)						
18:0 Stearic	1.70	1.98	-13.92	<0.001	1.53 - 1.86	0.90, 3.05
18:1 Oleic	62.79	65.79	-4.55	<0.001	61.34 - 65.18	56.13, 70.69
18:2 Linoleic	19.37	17.67	9.60	<0.001	17.63 - 20.81	12.60, 24.49
18:3 Linolenic	9.44	7.98	18.19	<0.001	6.83 - 10.70	6.96, 11.73
20:0 Arachidic	0.54	0.60	-9.14	<0.001	0.51 - 0.58	0.45, 0.80
20:1 Eicosenoic	1.15	1.09	4.91	0.014	1.08 - 1.22	0.83, 1.68
22:0 Behenic	0.27	0.28	-4.58	0.048	0.24 - 0.29	0.19, 0.43
Seed Mineral						
Calcium (g/100g dw)	0.42	0.40	7.33	0.019	0.26 - 0.53	0.16, 0.61

Table 1. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in Combined-Site Analysis						
Seed Anti-nutrient						
Phytic Acid (% dw)	1.93	2.11	-8.54	0.036	1.11 - 2.51	0.70, 3.52
Statistical Differences Observed in More than One Individual Site						
Seed Fatty Acid (% Total FA)						
18:1 Oleic Site MBNW	62.98	65.71	-4.14	0.004	62.68 - 63.28	56.13, 70.69
18:1 Oleic Site MBPL	61.50	64.30	-4.34	<0.001	61.34 - 61.68	56.13, 70.69
18:1 Oleic Site MNCA	62.62	64.86	-3.46	0.016	61.81 - 64.85	56.13, 70.69
18:1 Oleic Site NDVA	64.63	68.38	-5.48	0.001	63.67 - 65.18	56.13, 70.69
18:1 Oleic Site SKSA	62.18	65.69	-5.35	0.001	61.50 - 63.36	56.13, 70.69
18:2 Linoleic Site MBNW	19.26	17.89	7.63	0.019	19.06 - 19.46	12.60, 24.49

Table 1. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Untreated Test) vs. Ebony (Control) (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in More than One Individual Site						
Seed Fatty Acid (% Total FA)						
18:2 Linoleic Site MBPL	20.71	19.18	7.97	<0.001	20.61 - 20.81	12.60, 24.49
18:2 Linoleic Site MNCA	20.01	18.35	9.00	0.001	19.87 - 20.22	12.60, 24.49
18:2 Linoleic Site NDVA	18.16	15.71	15.60	0.003	17.63 - 18.98	12.60, 24.49
18:2 Linoleic Site SKSA	18.67	17.22	8.44	0.012	17.92 - 19.21	12.60, 24.49
Seed Vitamin (mg/100g dw)						
Vitamin E (a-tocopherol) Site MBNW	13.54	9.36	44.59	0.005	13.06 - 14.01	3.88, 17.28
Vitamin E (a-tocopherol) Site MBPL	12.02	7.63	57.63	<0.001	11.77 - 12.23	3.88, 17.28
Vitamin E (a-tocopherol) Site MNCA	14.36	10.82	32.72	0.001	13.70 - 15.54	3.88, 17.28
Vitamin E (a-tocopherol) Site NDVA	16.85	9.43	78.57	0.004	15.24 - 18.71	3.88, 17.28

Table 1. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Untreated Test) vs. Ebony (Control) (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in More than One Individual Site						
Seed Vitamin (mg/100g dw)						
Vitamin E (a-tocopherol) Site SKSA	2.23	6.91	-67.81	0.030	1.27 - 3.87	3.88, 17.28
Seed Anti-nutrient						
Sinapic Acid (% dw) Site MBNW	1.00	0.92	7.77	0.007	1.00 - 1.02	0.57, 1.13
Sinapic Acid (% dw) Site MBPL	0.96	0.86	10.69	0.001	0.95 - 0.96	0.57, 1.13
Sinapic Acid (% dw) Site MNCA	1.06	0.96	10.59	<0.001	1.03 - 1.10	0.57, 1.13
Sinapic Acid (% dw) Site NDVA	1.01	0.83	22.22	0.001	0.95 - 1.07	0.57, 1.13
Sinapic Acid (% dw) Site SKSA	0.37	0.81	-55.10	0.003	0.29 - 0.47	0.57, 1.13
Seed Fatty Acid (% Total FA)						
18:0 Stearic Site MBPL	1.61	1.87	-13.69	0.001	1.56 - 1.64	0.90, 3.05

Table 1. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in More than One Individual Site						
Seed Fatty Acid (% Total FA)						
18:0 Stearic Site MNCA	1.60	1.86	-13.64	0.004	1.53 - 1.75	0.90, 3.05
18:0 Stearic Site NDVA	1.81	2.11	-14.24	0.003	1.76 - 1.86	0.90, 3.05
18:0 Stearic Site SKSA	1.75	2.08	-16.09	0.004	1.70 - 1.76	0.90, 3.05
18:3 Linolenic Site MBNW	9.50	8.12	17.06	0.003	9.49 - 9.52	6.96, 11.73
18:3 Linolenic Site MBPL	9.26	7.74	19.57	<0.001	9.15 - 9.44	6.96, 11.73
18:3 Linolenic Site NDVA	8.90	7.31	21.68	<0.001	8.83 - 8.95	6.96, 11.73
18:3 Linolenic Site SKSA	10.30	8.38	22.94	0.001	10.06 - 10.70	6.96, 11.73
20:0 Arachidic Site MBPL	0.54	0.60	-9.26	<0.001	0.54 - 0.55	0.45, 0.80

Table 1. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in More than One Individual Site						
Seed Fatty Acid (% Total FA)						
20:0 Arachidic Site MNCA	0.53	0.57	-7.39	0.049	0.51 - 0.57	0.45, 0.80
20:0 Arachidic Site NDVA	0.57	0.65	-12.21	<0.001	0.56 - 0.58	0.45, 0.80
20:0 Arachidic Site SKSA	0.55	0.62	-10.58	0.001	0.55 - 0.55	0.45, 0.80
Seed Fatty Acid (% Total FA)						
20:1 Eicosenoic Site MBPL	1.13	1.08	4.93	0.005	1.13 - 1.14	0.83, 1.68
20:1 Eicosenoic Site MNCA	1.12	1.07	5.27	0.013	1.08 - 1.14	0.83, 1.68
20:1 Eicosenoic Site SKSA	1.21	1.13	6.85	0.018	1.20 - 1.22	0.83, 1.68
Seed Fiber (% dw)						
Acid Detergent Fiber Site MBPL	16.07	14.19	13.23	0.021	14.98 - 17.18	6.95, 23.92

Table 1. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in More than One Individual Site						
Seed Fiber (% dw)						
Acid Detergent Fiber Site SKSA	8.36	9.85	-15.13	0.012	7.06 - 9.89	6.95, 23.92
Seed Fatty Acid (% Total FA)						
16:1 Palmitoleic Site MBPL	0.23	0.25	-7.44	0.029	0.23 - 0.24	0.17, 0.30
16:1 Palmitoleic Site MNCA	0.21	0.24	-10.54	<0.001	0.21 - 0.22	0.17, 0.30
22:0 Behenic Site MBPL	0.27	0.30	-9.85	0.002	0.27 - 0.28	0.19, 0.43
22:0 Behenic Site NDVA	0.28	0.30	-7.02	0.010	0.27 - 0.29	0.19, 0.43
Seed Mineral						
Copper (mg/kg dw) Site MBPL	3.46	3.97	-13.00	0.018	3.38 - 3.59	2.00, 4.43
Copper (mg/kg dw) Site MNCA	4.53	4.11	10.05	0.004	4.38 - 4.66	2.00, 4.43

Table 1. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in More than One Individual Site						
Seed Mineral						
Iron (mg/kg dw) Site MBPL	45.24	51.01	-11.30	0.004	44.21 - 46.09	23.39, 86.23
Iron (mg/kg dw) Site MNCA	42.88	50.64	-15.32	0.006	40.73 - 46.89	23.39, 86.23
Seed Anti-nutrient						
Alkyl Glucosinolate (µmole/g dw) Site MBNW	3.96	5.43	-26.96	0.022	3.82 - 4.15	0, 29.02
Alkyl Glucosinolate (µmole/g dw) Site SKSA	3.50	5.82	-39.93	0.039	1.97 - 3.86	0, 29.02
Statistical Differences Observed in One Individual Site						
Seed Proximate (% dw)						
Carbohydrates Site MNCA	27.66	25.99	6.42	0.011	27.02 - 28.26	23.12, 30.77
Total Fat Site MNCA	45.52	46.59	-2.29	0.047	43.57 - 47.32	39.65, 51.24

Table 1. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in One Individual Site						
Seed Fiber (% dw)						
Neutral Detergent Fiber Site SKSA	10.15	12.59	-19.39	0.017	8.82 - 11.23	10.07, 25.94
Total Dietary Fiber Site SKSA	15.59	17.21	-9.41	0.044	14.87 - 16.90	13.97, 24.85
Seed Amino Acid (% dw)						
Tyrosine Site MBPL	0.72	0.71	2.74	0.028	0.71 - 0.75	0.57, 0.81
Seed Fatty Acid (% Total FA)						
16:0 Palmitic Site SKSA	4.42	4.07	8.58	0.002	4.28 - 4.57	2.84, 5.26
24:1 Nervonic Site SKSA	0.18	0.12	52.46	0.040	0.16 - 0.19	0.041, 0.18
Seed Mineral						
Calcium (g/100g dw) Site MBPL	0.36	0.34	8.00	0.032	0.35 - 0.37	0.16, 0.61
Potassium (g/100g dw) Site SKSA	0.79	0.71	11.41	0.002	0.76 - 0.87	0.39, 0.96

Table 1. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in One Individual Site						
Seed Anti-nutrient						
Indolyl Glucosinolate (µmole/g dw) Site SKSA	1.83	3.30	-44.41	0.007	1.06 - 1.98	1.37, 6.62
Phytic Acid (% dw) Site NDVA	1.33	1.59	-16.21	0.033	1.13 - 1.58	0.70, 3.52
Total Glucosinolate (µmole/g dw) Site SKSA	5.45	9.22	-40.83	0.020	3.11 - 5.96	0, 32.20

[1]dw = dry weight; FA = fatty acid.
[2]Test refers to MON 88302 (Untreated). These plants were not sprayed with herbicide, but received another conventional treatment as was done for the conventional control.
[3]Mean = least-square mean.
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 2. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Herbicide-Treated Test) vs. Ebony (Control)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in Combined-Site Analysis						
Seed Fiber (% dw)						
Total Dietary Fiber	20.90	18.37	13.81	0.004	16.91 - 27.81	13.97, 24.85
Seed Fatty Acid (% Total FA)						
16:1 Palmitoleic	0.22	0.24	-7.56	0.008	0.20 - 0.26	0.17, 0.30
18:0 Stearic	1.68	1.98	-15.06	<0.001	1.54 - 1.87	0.90, 3.05
18:1 Oleic	62.82	65.79	-4.52	<0.001	60.51 - 65.20	56.13, 70.69
18:2 Linoleic	19.26	17.67	8.98	<0.001	17.78 - 20.66	12.60, 24.49
18:3 Linolenic	9.58	7.98	20.01	<0.001	8.71 - 11.23	6.96, 11.73
20:0 Arachidic	0.54	0.60	-10.68	<0.001	0.50 - 0.57	0.45, 0.80
22:0 Behenic	0.27	0.28	-6.01	0.016	0.24 - 0.29	0.19, 0.43

Table 2. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Herbicide-Treated Test) vs. Ebony (Control) (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in Combined-Site Analysis						
Seed Anti-nutrient						
Alkyl Glucosinolate (µmole/g dw)	3.68	5.08	-27.59	0.035	1.19 - 5.87	0, 29.02
Statistical Differences Observed in More than One Individual Site						
Seed Fatty Acid (% Total FA)						
18:0 Stearic Site MBNW	1.73	1.97	-12.23	0.028	1.64 - 1.87	0.90, 3.05
18:0 Stearic Site MBPL	1.58	1.87	-15.64	<0.001	1.55 - 1.59	0.90, 3.05
18:0 Stearic Site MNCA	1.67	1.86	-10.01	0.022	1.65 - 1.71	0.90, 3.05
18:0 Stearic Site NDVA	1.77	2.11	-16.06	0.004	1.71 - 1.84	0.90, 3.05
18:0 Stearic Site SKSA	1.66	2.08	-20.14	0.001	1.54 - 1.72	0.90, 3.05
18:1 Oleic Site MBNW	63.40	65.71	-3.51	0.004	62.94 - 64.03	56.13, 70.69

Table 2. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Herbicide-Treated Test) vs. Ebony (Control) (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in More than One Individual Site						
Seed Fatty Acid (% Total FA)						
18:1 Oleic Site MBPL	62.06	64.30	-3.48	<0.001	61.82 - 62.35	56.13, 70.69
18:1 Oleic Site MNCA	61.67	64.86	-4.92	0.005	61.70 - 61.87	56.13, 70.69
18:1 Oleic Site NDVA	65.14	68.38	-4.74	0.003	64.90 - 65.20	56.13, 70.69
18:1 Oleic Site SKSA	61.91	65.69	-5.75	0.001	60.51 - 62.29	56.13, 70.69
18:2 Linoleic Site MBNW	19.27	17.89	7.71	0.011	18.82 - 19.66	12.60, 24.49
18:2 Linoleic Site MBPL	20.43	19.18	6.50	<0.001	20.13 - 20.66	12.60, 24.49
18:2 Linoleic Site MNCA	20.20	18.35	10.07	0.001	20.00 - 20.32	12.60, 24.49
18:2 Linoleic Site NDVA	17.86	15.71	13.67	0.009	17.78 - 18.02	12.60, 24.49

Table 2. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Herbicide-Treated Test) vs. Ebony (Control) (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in More than One Individual Site						
Seed Fatty Acid (% Total FA)						
18:2 Linoleic Site SKSA	18.49	17.22	7.36	0.019	18.08 - 19.48	12.60, 24.49
Seed Vitamin (mg/100g dw)						
Vitamin E (a-tocopherol) Site MBNW	13.06	9.36	39.51	0.004	12.22 - 13.47	3.88, 17.28
Vitamin E (a-tocopherol) Site MBPL	11.50	7.63	50.83	<0.001	10.70 - 12.20	3.88, 17.28
Vitamin E (a-tocopherol) Site MNCA	13.39	10.82	23.73	0.006	12.58 - 14.62	3.88, 17.28
Vitamin E (a-tocopherol) Site NDVA	15.89	9.43	68.39	0.010	15.23 - 16.55	3.88, 17.28
Vitamin E (a-tocopherol) Site SKSA	1.49	6.91	-78.47	0.019	1.30 - 1.66	3.88, 17.28
Seed Anti-nutrient						
Sinapic Acid (% dw) Site MBNW	1.02	0.92	10.34	0.001	0.99 - 1.06	0.57, 1.13

Table 2. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Herbicide-Treated Test) vs. Ebony (Control) (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in More than One Individual Site						
Seed Anti-nutrient						
Sinapic Acid (% dw) Site MBPL	0.97	0.86	12.04	<0.001	0.95 - 0.99	0.57, 1.13
Sinapic Acid (% dw) Site MNCA	1.06	0.96	10.66	0.001	1.02 - 1.08	0.57, 1.13
Sinapic Acid (% dw) Site NDVA	1.02	0.83	23.56	0.001	1.00 - 1.04	0.57, 1.13
Sinapic Acid (% dw) Site SKSA	0.22	0.81	-73.12	0.001	0.16 - 0.28	0.57, 1.13
Seed Fatty Acid (% Total FA)						
16:1 Palmitoleic Site MBNW	0.21	0.23	-9.71	0.015	0.20 - 0.21	0.17, 0.30
16:1 Palmitoleic Site MBPL	0.23	0.25	-10.10	0.008	0.22 - 0.23	0.17, 0.30
16:1 Palmitoleic Site MNCA	0.21	0.24	-10.88	0.001	0.21 - 0.21	0.17, 0.30
16:1 Palmitoleic Site NDVA	0.20	0.22	-11.05	0.036	0.20 - 0.20	0.17, 0.30

Table 2. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Herbicide-Treated Test) vs. Ebony (Control) (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in More than One Individual Site						
Seed Fatty Acid (% Total FA)						
18:3 Linolenic Site MBNW	9.19	8.12	13.27	0.004	8.88 - 9.42	6.96, 11.73
18:3 Linolenic Site MBPL	9.28	7.74	19.89	<0.001	9.12 - 9.43	6.96, 11.73
18:3 Linolenic Site NDVA	8.82	7.31	20.67	<0.001	8.71 - 8.94	6.96, 11.73
18:3 Linolenic Site SKSA	10.78	8.38	28.69	<0.001	10.39 - 11.23	6.96, 11.73
Seed Fatty Acid (% Total FA)						
20:0 Arachidic Site MBPL	0.53	0.60	-11.73	<0.001	0.52 - 0.54	0.45, 0.80
20:0 Arachidic Site NDVA	0.57	0.65	-12.58	<0.001	0.56 - 0.57	0.45, 0.80
20:0 Arachidic Site SKSA	0.54	0.62	-13.28	<0.001	0.52 - 0.55	0.45, 0.80

Table 2. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Herbicide-Treated Test) vs. Ebony (Control) (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in More than One Individual Site						
Seed Mineral						
Copper (mg/kg dw) Site MBNW	3.72	3.41	9.28	0.013	3.61 - 3.83	2.00, 4.43
Copper (mg/kg dw) Site MBPL	3.47	3.97	-12.50	0.016	3.35 - 3.56	2.00, 4.43
Copper (mg/kg dw) Site MNCA	4.40	4.11	6.91	0.027	4.16 - 4.57	2.00, 4.43
Seed Fatty Acid (% Total FA)						
22:0 Behenic Site MBPL	0.27	0.30	-13.00	<0.001	0.26 - 0.27	0.19, 0.43
22:0 Behenic Site NDVA	0.27	0.30	-9.83	0.007	0.27 - 0.27	0.19, 0.43
Seed Mineral						
Iron (mg/kg dw) Site MBPL	44.13	51.01	-13.48	0.001	42.80 - 45.09	23.39, 86.23
Iron (mg/kg dw) Site MNCA	42.57	50.64	-15.93	0.007	40.56 - 44.18	23.39, 86.23

Table 2. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Herbicide-Treated Test) vs. Ebony (Control) (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in More than One Individual Site						
Seed Mineral						
Potassium (g/100g dw) Site MBPL	0.70	0.77	-8.91	0.023	0.63 - 0.76	0.39, 0.96
Potassium (g/100g dw) Site SKSA	0.82	0.71	15.32	<0.001	0.77 - 0.90	0.39, 0.96
Zinc (mg/kg dw) Site MBPL	31.25	33.88	-7.76	0.024	30.45 - 32.05	20.19, 48.23
Zinc (mg/kg dw) Site SKSA	41.58	33.10	25.61	0.010	39.33 - 45.49	20.19, 48.23
Statistical Differences Observed in One Individual Site						
Seed Proximate (% dw)						
Carbohydrates Site MNCA	27.31	25.99	5.07	0.035	26.27 - 27.90	23.12, 30.77
Moisture (% fw) Site MNCA	5.52	6.69	-17.46	<0.001	5.37 - 5.61	4.33, 6.91
Protein Site SKSA	23.82	22.14	7.58	0.038	23.62 - 24.58	17.20, 30.08

Table 2. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Herbicide-Treated Test) vs. Ebony (Control) (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in One Individual Site						
Seed Proximate (% dw)						
Total Fat Site NDVA	48.04	45.17	6.35	0.014	47.20 - 48.87	39.65, 51.24
Seed Fiber (% dw)						
Acid Detergent Fiber Site MBPL	16.75	14.19	18.00	0.005	15.17 - 18.19	6.95, 23.92
Neutral Detergent Fiber Site MBPL	19.45	16.87	15.31	0.017	18.35 - 20.02	10.07, 25.94
Seed Amino Acid (% dw)						
Tyrosine Site MBPL	0.72	0.71	2.46	0.028	0.72 - 0.73	0.57, 0.81
Valine Site MNCA	1.15	1.24	-7.32	0.048	1.13 - 1.15	0.92, 1.55
Seed Fatty Acid (% Total FA)						
16:0 Palmitic Site SKSA	4.51	4.07	10.90	<0.001	4.46 - 4.57	2.84, 5.26
20:1 Eicosenoic Site SKSA	1.24	1.13	9.55	0.005	1.22 - 1.26	0.83, 1.68

Table 2. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Herbicide-Treated Test) vs. Ebony (Control) (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in One Individual Site						
Seed Fatty Acid (% Total FA)						
24:0 Lignoceric Site MBPL	0.16	0.19	-12.24	0.029	0.16 - 0.17	0.033, 0.25
24:1 Nervonic Site MBPL	0.13	0.16	-20.37	0.031	0.12 - 0.13	0.041, 0.18
Seed Anti-nutrient						
Alkyl Glucosinolate (µmole/g dw) Site SKSA	1.61	5.82	-72.32	0.005	1.19 - 2.17	0, 29.02
Indolyl Glucosinolate (µmole/g dw) Site SKSA	0.86	3.30	-73.88	0.001	0.49 - 1.31	1.37, 6.62
Total Glucosinolate (µmole/g dw) Site SKSA	2.53	9.22	-72.58	0.002	1.73 - 3.51	0, 32.20

[1]dw = dry weight; fw = fresh weight; FA = fatty acid.
[2]Test refers to MON 88302 (Herbicide-Treated).
[3]Mean = least-square mean.
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 3 Literature Range for Components in Canola

Component[1]	Literature Range[2]
Proximates (% dw)	
Ash	4.067 – 5.917[a]
Carbohydrates	N
Moisture (% fw calculated from dm)	3.177 – 8.045 [a]; 7.4 – 10.0[b]
Protein	21.30 – 28.125[a]; 18.7 – 26.0[b]; 17.4 – 23.0[c]; 21.1 – 26.7[d]
Total Fat	35.59 – 44.93[a]; 24.0 – 43.6[b]; 42.0 – 49.5[d]
Fiber (% dw)	
Acid Detergent Fiber (ADF)	11.934 – 26.799 [a];11.6[f]; 12.4[g]; 22.2[h]
Neutral Detergent Fiber (NDF)	18.653 – 34.720[a]; 17.8[f]; 16.49[g]; 31.3[h]
Total Dietary Fiber	N
Amino Acids (% dw)	
Alanine	0.93 – 0.96[b] ; 1.15 – 1.38[e]
Arginine	1.13 – 1.21 [b]; 2.23 – 2.46[e]
Aspartic acid	1.54 – 1.59[e]
Cystine/Cysteine	0.52 – 0.54 [b]
Glutamic acid	4.60 – 4.71[e]
Glycine	1.04 – 1.06 [b]; 2.20 – 2.22[e]
Histidine	0.51 – 0.66 [b]; 0.80 – 0.82[e]
Isoleucine	0.80 – 0.86 [b]; 0.96 – 1.03[e]
Leucine	1.35 – 1.47 [b]; 1.83 – 1.99[e]
Lysine	1.03 – 1.19 [b]; 1.67 – 1.85[e]
Methionine	0.42 – 0.44 [b]
Phenylalanine	0.75 – 0.82 [b]; 0.90 – 1.03[e]
Proline	1.19 – 1.33 [b]; 3.36 – 3.74[e]
Serine	0.90 – 0.94 [b]; 1.44 – 1.55[e]
Threonine	0.87 – 0.94 [b]; 1.28 – 1.30[e]
Tryptophan	0.23 – 0.27[b];
Tyrosine	0.51 – 0.59 [b]; 0.81 – 0.92[e]
Valine	1.02 – 1.13 [b]; 1.45 – 1.55[e]
Vitamins (mg/kg dw)	
Vitamin E (α-tocopherol)	71.1 – 108.4[i]

Table 3. Literature Range for Components in Canola (cont.)

Component[1]	Literature Range[2]
Minerals	
Calcium (% dw)	0.29 – 0.48[b]; 0.348 – 0.729[a]
Copper (mg/kg dw)	7[b]; 1.388 – 5.492[a]
Iron (mg/kg dw)	ND[b]; 0.0 – 965.6[a]
Magnesium (% dw)	0.29 – 0.31[b]; 0.272 – 0.402[a]
Manganese (mg/kg dw)	ND[b]; 33.813 – 64.757[a]
Phosphorus (% dw)	0.48 – 0.85[b]; 0.581 – 0.895[a]
Potassium (% dw)	0.83 – 0.91[b]; 0.681 – 1.016[a]
Sodium (% dw)	0.05[b]; 0.003 – 0.030[a]
Zinc (mg/kg dw)	62[b]; 0 – 126.953[a]
Fatty Acids (% total)	
16:0 Palmitic	3.3 – 6.0[b]
16:1 Palmitoleic	0.1 – 0.6[b]
18:0 Stearic	1.1 – 2.5 [b]
18:1 Oleic	52.0 – 66.9[b]
18:2 Linoleic	16.1 – 24.8[b]
18:3 Linolenic	6.4 – 14.1[b]
20:0 Arachidic	0.2 – 0.8[b]
20:1 Eicosenoic	0.1 – 3.4[b]
20:2 Eicosadienoic	0.0 – 0.1[b]
20:3 Eicosatrienoic	N
20:4 Arachidonic	N
22:0 Behenic	0.0 – 0.5[b]
22:1 Erucic	0.0 – 2.0[b]
24:0 Lignoceric	0.0 – 0.2[b]
24:1 Nervonic	0.0 – 0.04[b]
Antinutrients	
Total Glucosinolates (µmol/g)	6 – 29[b]; 7.8 – 26.8[c]; 18 – 57[j]
Phytic Acid (% dw)	2.0 – 5.0[b]
Sinapine (% dw)	0.6 – 1.8[b]
Tannins (% dw)	1.5 – 3.0[b]; 0.68 – 0.77[k]

[1]fw=fresh weight; dw=dry weight; dm = dry matter; ND = below the level of detection; N = not reported.
[2]Literature Range= Values published for canola (low erucic acid rapeseed).

Citations = [a]Dairy One Forage Lab. 2010; [b]OECD, 2001; [c]Pritchard *et al*, 2000; [d] Barthet & Daun, 2005; [e]Wang *et al*, 1999; [f]NRC, 2001; [g]Mustafa *et al*, 2000; [h]Leupp *et al*, 2006; [i]Marwede *et al*, 2004;.[j]Mailer & Pratley, 1990; [k]Naczk, *et al*,1998.
Conversions: mg/100g dw × 10 = mg/kg dw; g/100g dw× 10 = mg/g dw.

Appendix 1. Covance Analytical Sub-Report

Compositional Analyses of Canola Seed Collected from MON 88302 Grown in the United States during the 2008 Growing Season

The following 112 pages are the analytical sub-report
Pages 54 – 165

COVANCE
THE DEVELOPMENT SERVICES COMPANY

Final Sub-Report

Study Title	Compositional Analyses of Canola Seed Collected from MON 88302 Grown in the United States and Canada during the 2009 Growing Season
Sponsor Monsanto	Company 800 North Lindbergh Blvd. St. Louis, MO 63167
Study Director	[redacted] Monsanto Company
Compositional Analysis Testing Facility	Covance Laboratories Inc. 3301 Kinsman Blvd. Madison, WI 53704
Covance Principal Investigator	[redacted]
Monsanto Study Number	REG-10-045
Covance Study Number	8224-999
Covance Client Number	1002066
Sub-Report Issued	19 October 2010
Page Number	1 of 112

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QUALITY ASSURANCE STATEMENT

This report has been reviewed by the Quality Assurance Unit of Covance Laboratories Inc. and accurately reflects the raw data. The following study specific inspections were conducted and findings reported to the principal investigator (PI), study director (SD), and associated management.

Inspection Dates				
From	To	Phase	Date Reported to PI and PI Management	Date Reported to SD and SD Management
19 May 2010	19 May 2010	Analytical Chemistry	19 May 2010	09 Aug 2010
07 Jun 2010	17 Jun 2010	Data/Table Review	17 Jun 2010	09 Aug 2010
28 Jun 2010	29 Jun 2010	Data/Table Review	30 Jun 2010	09 Aug 2010
22 Jul 2010	24 Jul 2010	Draft Report and Data Review	26 Jul 2010	09 Aug 2010
11 Oct 2010	11 Oct 2010	Data/Table Review	11 Oct 2010	11 Oct 2010

[redacted]

SIGNATURE

[redacted]

Principal Investigator
Nutritional Chemistry and Food Safety
Covance Laboratories Inc.

STUDY IDENTIFICATION

Monsanto Study Number:
REG-10-045

Study Director:
[redacted]
Monsanto Company – C1NA
Product Safety Center
800 North Lindbergh Blvd.
St. Louis, MO 63167
Phone: [redacted]
Fax: 314.694.6733
e-mail [redacted]

Compositional Analysis Testing Facility:
Covance Laboratories Inc.
3301 Kinsman Blvd.
Madison, WI 53704

Covance Principal Investigator:
[redacted]
Covance Laboratories Inc.
Phone: [redacted]
Fax: 608.310.8200
e-mail [redacted]

Analytical Study Timetable

Study Initiation Date:	15 March 2010
Sub-Report Completion Date:	19 October 2010

COVANCE KEY PERSONNEL

Nutritional Chemistry and Food Safety

[redacted]

INTRODUCTION

The purpose of this portion of the study was to generate data for compositional analyses of canola seed collected from MON 88302 (test substance), a control substance, and seven unique reference substances.

REGULATORY COMPLIANCE

This portion of the study was conducted in accordance with the Environmental Protection Agency (EPA) Good Laboratory Practice Standards, §160.135(b) in compliance with all requirements of section 40 CFR 160 with the following exceptions:

1. Reference standards were not listed in the protocol but are listed in the sub-report, were not characterized according to GLP standards, and no reserve samples were retained from each batch.

2. Storage stability of the compositional analytes in the test, control, and reference substances was not determined in this portion of the study; however, the samples were maintained at Covance at approximately –20°C throughout the study to minimize degradation.

These exceptions had no effect on the integrity or quality of the study.

MAJOR COMPUTER SYSTEMS

The major computer systems used on this study may have included, but were not limited to, the following systems:

- Balance Application (balance weight capture system)
- eNotes (official study communication)
- Waters Empower® Chromatography Manager (data acquisition and result calculation system)
- Laboratory Information Management System (sample and assay tracking)
- Metasys or REES (monitor and document storage conditions for test/control/reference materials and samples)
- UV-Visible ChemStation (data acquisition)

®Empower is a registered trademark of Waters Corporation

TEST, CONTROL, AND REFERENCE SUBSTANCES

Test Substance
The test substance was MON 88302. The seed collected from glyphosate-treated and glyphosate untreated plots were evaluated in this portion of the study. The test substance was identified as follows:

Material Name	Seed Lot Number	Treatment[1]
MON 88302	11225246	Yes
MON 88302	11225246	No

[1] Post-emergent glyphosate application

Control Substance
The control substance, Ebony, is a conventional canola variety. Seed collected from plots not treated with glyphosate were evaluated in this study. The control substance was identified as follows:

Material Name	Seed Lot Number	Treatment[1]
Ebony	11225244	No

[1]Post-emergent glyphosate application

Reference Substances
The reference substances were conventional canola varieties. These canola varieties were not treated with glyphosate. The reference substances were identified as follows:

Material Name	Seed Lot Number	Field Sites
Q2	10001931	MBPL, MBNW, SKSA, NDVA, MNCA
Hyola 401	10001850	NDVA, SKSA, MBPL
SP Armada	10001932	MBPL, SKSA, NDVA
Croplan 601	10001849	MBPL, SKSA, NDVA
SValof Sponsor	10002116	MNCA, MBNW
SValof Senator	10002115	MNCA, MBNW
DSV Ability	10002117	MNCA, MBNW

Appropriate reference standards were used in each assay for the analytical procedures or calibration of equipment. See Appendix A for reference standard identification.

Characterization of Test, Control, and Reference Substances
Information on the characterization that defined the test/control/reference (T/C/R) was the responsibility of the Study Director.

Storage Retention
The canola seed samples were received frozen on dry ice. All samples were stored at Covance in a freezer set to maintain –20 ±10°C. Reference standards were stored according to vendor specifications.

Disposition
Any remaining prepared dilutions or extractions of the samples were discarded at Covance. All excess samples will be retained by Covance for one year, at which time the Sponsor will be contacted for approval to either dispose of or return the excess samples to Monsanto. Remaining reference standards may be used for other testing.

Reserve/Retain Samples
Samples of each test, control, and reference substance were retained by the Sponsor.

SAFETY PRECAUTIONS

Safety precautions were taken as outlined in the Environmental, Health, and Safety section of the Covance Policies and Procedures Manual.

SAMPLE RECEIPT AND HANDLING

The samples were entered into the Covance Laboratory Information Management System (LIMS) with unique LIMS numbers. Each Monsanto sample identification was matched with the Covance LIMS information.

CONTROL OF BIAS

The samples were analyzed in a non-systematic, random order to minimize assay bias. The samples were entered into the LIMS system in a random order provided by Monsanto.

EXPERIMENTAL DESIGN

This study used approved analytical methods to determine the composition of the samples. See Appendix A for a summary of the analytical methods referenced by the method mnemonic.

The following analyses were performed on the **Seed** samples:

Analyte	**Method Mnemonic**[1]
Proximates	
Moisture	M100
Protein	PGEN
Fat	FSOX
Ash	ASHM
Acid detergent fiber	ADFA
Neutral detergent fiber	NDFA
Total dietary fiber	TDF
Amino acids	TAA5
Fatty acids (C:8 – C:24, including erucic acid)	FALC
Glucosinolates (Total Alkyl [Aliphatic], Total Indolyl, Total Glucosinolates)	GLLC
Minerals (calcium, copper, iron, magnesium, manganese, phosphorus, potassium, sodium, zinc)	ICPS
Phytic acid	PHYT
Sinapic acid	SINA
Vitamin E (α-tocopherol)	LCAT

[1]Analytical methods are kept on file at Covance Laboratories Inc.

In addition, carbohydrate (CHO) values in seed were estimated by calculation.

Quality control samples (duplicates, recoveries, certified reference standards, blanks, or validated control samples) were prepared and analyzed at Covance. Appropriate standards were used in each assay as reference standards for the analytical procedures or calibration of equipment. Re-analyses were performed as determined by Covance methods and/or SOPs. When re-analyses were deemed necessary, documentation and justification were provided in the raw data.

STATISTICAL EVALUATIONS

There were no statistical evaluations performed on the final tabulated results by Covance.

RECORD RETENTION

All data relating to or generated by the project, including a copy of the protocol and amendments, a copy of the analytical sub-report, results, laboratory notebooks and any other information or records relating to the project will be retained in the archives of Covance in accordance with EPA 40 CFR Part 160. The data will be retained for one year, at which time the sponsor will be contacted for approval to transfer all data and records for permanent retention in the Monsanto archives in accordance with 40 CFR Part 160 (except for copies of the final protocol, and final report which will be kept by Covance). Electronic data collected at Covance Laboratories Inc. using Empower software will be stored on duplicate compact discs (CDs). One of the CDs will be stored in the archives at Covance Laboratories Inc. The second CD will be transferred to the archives at Monsanto Company in St. Louis, Missouri.

Supporting records that will be retained at Covance, but will not be archived with the study data, include:

1. Instrument calibration and maintenance records
2. Storage temperature records
3. Training records of study personnel
4. Durable media records
5. Standard Operating Procedures
6. Standard logbooks
7. Certificates of Analysis for reference standards

RESULTS

The results for the canola seed analyses are presented in Table 1. The results are reported on a fresh weight basis.

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254151	11254116	11254127	11254137
MON Number	MON 88302	MON 88302	MON 88302	MON 88302
Material Name	MON 88302	MON 88302	MON 88302	MON 88302
Site	MBNW	MBNW	MBNW	MBNW
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 4
Treatment	S	S	S	S
Plot	104	210	302	406
Entry	8	8	8	8
Covance LIMS Number	00400050	00400021	00400104	00400002
Proximate (%)				
Moisture	4.99	5.43	5.05	5.56
Protein	18.7	19.8	21.5	19.6
Total Fat	46.8	44.4	44.5	45.6
Ash	3.83	3.88	3.53	3.85
Carbohydrates	25.7	26.5	25.4	25.4
Acid Detergent Fiber (%)	14.3	16.7	14.8	15.8
Neutral Detergent Fiber (%)	16.3	20.2	17.9	17.9
Total Dietary Fiber (%)	20.9	26.3	21.6	18.1
Vitamin E (mg/100g)	12.8	12.5	11.6	12.6
Phytic Acid (%)	2.07	1.79	1.64	2.32
Sinapic acid (ppm)	9810	9410	9390	10000
Minerals (ppm)				
Calcium	4840	4570	4490	4240
Copper	3.64	3.46	3.60	3.41
Iron	40.2	40.1	41.4	38.3
Magnesium	3340	3350	2930	3280
Manganese	34.4	40.8	33.5	41.4
Phosphorus	7170	7330	5680	7290
Potassium	5460	5290	5090	5260
Sodium	< 100	< 100	< 100	112
Zinc	35.3	31.5	34.9	30.6
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	5.58	5.24	4.65	4.22
Total Indolyl	3.79	5.44	4.04	2.76
Total Glucosinolates	9.52	10.8	8.88	7.18

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254151	11254116	11254127	11254137
MON Number	MON 88302	MON 88302	MON 88302	MON 88302
Material Name	MON 88302	MON 88302	MON 88302	MON 88302
Site	MBNW	MBNW	MBNW	MBNW
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 4
Treatment	S	S	S	S
Plot	104	210	302	406
Entry	8	8	8	8
Covance LIMS Number	00400050	00400021	00400104	00400002
Amino Acids (mg/g)				
Aspartic Acid	13.7	15.6	16.3	15.0
Threonine	8.35	9.25	9.22	8.83
Serine	8.30	9.36	9.74	8.89
Glutamic Acid	32.0	34.9	38.2	34.3
Proline	11.4	12.0	12.8	11.9
Glycine	9.65	10.3	11.0	10.3
Alanine	8.38	8.94	9.64	9.01
Cystine	4.52	4.80	5.64	4.68
Valine	9.85	10.5	11.5	10.6
Methionine	3.81	3.85	4.30	3.75
Isoleucine	7.67	8.17	8.94	8.25
Leucine	13.3	14.4	15.4	14.3
Tyrosine	5.62	6.09	6.26	6.11
Phenylalanine	8.02	8.68	9.22	8.63
Lysine	11.6	12.4	13.4	12.2
Histidine	5.21	5.50	6.06	5.49
Arginine	11.7	13.2	13.7	12.6
Tryptophan	1.59	1.87	2.46	1.99

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254151	11254116	11254127	11254137
MON Number	MON 88302	MON 88302	MON 88302	MON 88302
Material Name	MON 88302	MON 88302	MON 88302	MON 88302
Site	MBNW	MBNW	MBNW	MBNW
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 4
Treatment	S	S	S	S
Plot	104	210	302	406
Entry	8	8	8	8
Covance LIMS Number	00400050	00400021	00400104	00400002
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.81	1.72	1.73	1.77
16:1 Palmitoleic	0.0880	0.0865	0.0876	0.0903
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.815	0.712	0.721	0.712
18:1 Oleic	27.9	27.1	26.3	27.4
18:2 Linoleic	8.20	8.34	7.94	8.56
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	3.87	3.92	3.87	4.10
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.236	0.215	0.225	0.218
20:1 Eicosenoic	0.462	0.457	0.476	0.462
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.106	0.102	0.108	0.105
22:1 Erucic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0664	0.0618	0.0634	0.0682
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	< 0.0400	0.0505	0.0427	0.0512

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254140	11254129	11254138	11254149
MON Number	MON 88302	MON 88302	Conventional	Conventional
Material Name	MON 88302	MON 88302	Ebony	Ebony
Site	MBNW	MBNW	MBNW	MBNW
Replicate Number	Rep 1	Rep 4	Rep 1	Rep 2
Treatment	NS	NS	NS	NS
Plot	106	410	109	203
Entry	9	9	1	1
Covance LIMS Number	00400124	00400098	00400028	00400010
Proximate (%)				
Moisture	5.07	4.37	4.87	5.13
Protein	22.5	20.1	19.3	19.4
Total Fat	44.2	45.7	47.5	46.7
Ash	3.70	3.91	3.65	3.82
Carbohydrates	24.5	25.9	24.7	25.0
Acid Detergent Fiber (%)	12.6	14.4	14.3	15.5
Neutral Detergent Fiber (%)	14.6	17.5	16.6	16.5
Total Dietary Fiber (%)	17.1	17.5	21.2	19.4
Vitamin E (mg/100g)	12.4	13.4	8.61	9.63
Phytic Acid (%)	1.88	2.14	2.36	2.43
Sinapic acid (ppm)	9530	9790	8860	8720
Minerals (ppm)				
Calcium	4360	4570	4080	4360
Copper	3.35	3.42	3.26	3.26
Iron	42.5	40.9	48.8	43.8
Magnesium	3050	3270	3310	3240
Manganese	43.4	45.1	38.2	39.0
Phosphorus	6510	7070	7500	7140
Potassium	5080	5330	5560	5370
Sodium	< 100	< 100	< 100	< 100
Zinc	28.5	27.7	28.0	27.0
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	3.94	3.65	5.86	5.17
Total Indolyl	3.96	2.88	5.05	2.77
Total Glucosinolates	8.05	6.57	11.0	8.01

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254140	11254129	11254138	11254149
MON Number	MON 88302	MON 88302	Conventional	Conventional
Material Name	MON 88302	MON 88302	Ebony	Ebony
Site	MBNW	MBNW	MBNW	MBNW
Replicate Number	Rep 1	Rep 4	Rep 1	Rep 2
Treatment	NS	NS	NS	NS
Plot	106	410	109	203
Entry	9	9	1	1
Covance LIMS Number	00400124	00400098	00400028	00400010
Amino Acids (mg/g)				
Aspartic Acid	17.8	15.5	14.7	14.8
Threonine	9.82	9.01	8.78	8.73
Serine	10.3	9.32	9.04	8.91
Glutamic Acid	39.6	35.0	34.6	34.6
Proline	13.6	11.8	11.4	11.7
Glycine	11.5	10.5	10.1	10.2
Alanine	10.1	9.10	8.84	8.86
Cystine	5.45	5.14	4.79	4.73
Valine	12.0	10.8	9.95	10.4
Methionine	4.42	4.00	3.93	3.83
Isoleucine	9.41	8.42	7.84	8.13
Leucine	16.4	14.7	14.1	14.2
Tyrosine	6.76	6.16	5.98	5.96
Phenylalanine	9.89	8.92	8.53	8.53
Lysine	13.2	12.2	11.9	11.9
Histidine	6.07	5.54	5.42	5.43
Arginine	14.6	12.9	12.9	13.0
Tryptophan	2.58	2.19	1.81	1.90

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254140	11254129	11254138	11254149
MON Number	MON 88302	MON 88302	Conventional	Conventional
Material Name	MON 88302	MON 88302	Ebony	Ebony
Site	MBNW	MBNW	MBNW	MBNW
Replicate Number	Rep 1	Rep 4	Rep 1	Rep 2
Treatment	NS	NS	NS	NS
Plot	106	410	109	203
Entry	9	9	1	1
Covance LIMS Number	00400124	00400098	00400028	00400010
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.69	1.75	1.83	1.79
16:1 Palmitoleic	0.0885	0.0914	0.0998	0.104
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.724	0.763	0.889	0.908
18:1 Oleic	25.9	27.0	30.2	29.6
18:2 Linoleic	8.04	8.13	8.37	8.03
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	3.92	4.06	3.74	3.72
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.225	0.225	0.251	0.255
20:1 Eicosenoic	0.473	0.464	0.459	0.457
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.107	0.104	0.112	0.114
22:1 Erucic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0695	0.0570	0.0690	0.0670
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	0.0811	< 0.0400	0.0531	0.0486

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254125	11254132	11254152	11254128
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Ebony	DSV Ability	DSV Ability	DSV Ability
Site	MBNW	MBNW	MBNW	MBNW
Replicate Number	Rep 4	Rep 1	Rep 2	Rep 4
Treatment	NS	NS	NS	NS
Plot	403	101	211	411
Entry	1	5	5	5
Covance LIMS Number	00400111	00400113	00400096	00400069
Proximate (%)				
Moisture	4.69	4.54	4.43	4.70
Protein	20.6	19.7	18.9	17.8
Total Fat	46.6	46.1	47.0	47.9
Ash	3.49	4.01	3.69	3.82
Carbohydrates	24.6	25.7	26.0	25.8
Acid Detergent Fiber (%)	13.0	15.2	15.8	17.5
Neutral Detergent Fiber (%)	15.9	17.1	19.0	19.5
Total Dietary Fiber (%)	14.5	16.8	16.3	17.8
Vitamin E (mg/100g)	8.47	10.5	11.7	11.6
Phytic Acid (%)	1.69	2.21	2.00	2.24
Sinapic acid (ppm)	9000	8530	8010	8080
Minerals (ppm)				
Calcium	4120	4180	4010	4220
Copper	3.20	3.08	2.90	2.80
Iron	39.7	46.1	42.8	43.2
Magnesium	2940	3260	3230	3250
Manganese	35.6	31.2	34.8	35.8
Phosphorus	5860	7440	6740	7460
Potassium	5110	6180	5720	6230
Sodium	< 100	< 100	< 100	< 100
Zinc	31.3	28.9	30.1	27.4
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	4.62	5.06	4.77	3.97
Total Indolyl	3.63	3.04	3.35	3.37
Total Glucosinolates	8.47	8.18	8.26	7.47

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254125	11254132	11254152	11254128
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Ebony	DSV Ability	DSV Ability	DSV Ability
Site	MBNW	MBNW	MBNW	MBNW
Replicate Number	Rep 4	Rep 1	Rep 2	Rep 4
Treatment	NS	NS	NS	NS
Plot	403	101	211	411
Entry	1	5	5	5
Covance LIMS Number	00400111	00400113	00400096	00400069
Amino Acids (mg/g)				
Aspartic Acid	15.6	14.4	13.9	13.5
Threonine	9.18	8.62	8.58	8.01
Serine	9.28	8.91	8.93	8.39
Glutamic Acid	36.6	34.0	32.6	31.1
Proline	12.3	11.8	10.7	10.9
Glycine	10.7	10.2	9.89	9.67
Alanine	9.33	8.74	8.51	8.29
Cystine	5.13	5.13	4.71	4.26
Valine	11.0	10.4	9.63	9.78
Methionine	4.15	3.99	3.58	3.40
Isoleucine	8.60	8.06	7.45	7.54
Leucine	14.9	14.0	13.4	13.0
Tyrosine	6.06	5.95	5.91	5.71
Phenylalanine	8.83	8.45	8.27	7.99
Lysine	12.6	12.1	11.8	11.4
Histidine	5.76	5.50	5.29	5.10
Arginine	13.2	12.4	11.9	11.7
Tryptophan	2.36	2.16	1.77	1.58

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254125	11254132	11254152	11254128
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Ebony	DSV Ability	DSV Ability	DSV Ability
Site	MBNW	MBNW	MBNW	MBNW
Replicate Number	Rep 4	Rep 1	Rep 2	Rep 4
Treatment	NS	NS	NS	NS
Plot	403	101	211	411
Entry	1	5	5	5
Covance LIMS Number	00400111	00400113	00400096	00400069
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.78	1.71	1.76	1.76
16:1 Palmitoleic	0.103	0.0977	0.100	0.0966
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.858	0.871	0.849	0.854
18:1 Oleic	28.9	28.3	28.6	28.4
18:2 Linoleic	7.76	7.96	8.13	7.97
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	3.50	3.94	3.95	3.92
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.255	0.256	0.251	0.251
20:1 Eicosenoic	0.472	0.486	0.487	0.454
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.119	0.120	0.122	0.118
22:1 Erucic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0659	0.0604	0.0500	< 0.0400
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	< 0.0400	0.0532	0.0463	< 0.0400

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254134	11254146	11254114	11254122
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Q2	Q2	Q2	Q2
Site	MBNW	MBNW	MBNW	MBNW
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS	NS
Plot	103	206	304	408
Entry	2	2	2	2
Covance LIMS Number	00400026	00400042	00400138	00400142
Proximate (%)				
Moisture	5.05	4.83	4.13	4.55
Protein	18.9	20.7	19.1	20.0
Total Fat	46.4	46.0	47.9	47.6
Ash	3.97	3.34	3.82	3.60
Carbohydrates	25.7	25.1	25.1	24.3
Acid Detergent Fiber (%)	14.7	17.6	13.6	14.0
Neutral Detergent Fiber (%)	17.8	19.9	20.0	19.4
Total Dietary Fiber (%)	23.5	21.4	17.1	21.1
Vitamin E (mg/100g)	11.5	11.9	13.2	11.4
Phytic Acid (%)	2.21	1.51	1.97	1.74
Sinapic acid (ppm)	8220	7950	8450	8500
Minerals (ppm)				
Calcium	4190	4230	4050	3990
Copper	3.17	2.81	2.49	2.49
Iron	47.7	45.8	42.7	44.9
Magnesium	3540	3040	3110	3090
Manganese	26.1	33.0	31.1	31.9
Phosphorus	7040	5530	6880	6330
Potassium	6760	6020	6570	5820
Sodium	< 100	< 100	< 100	< 100
Zinc	31.7	31.0	26.4	29.0
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	5.72	5.20	3.36	4.31
Total Indolyl	5.93	3.97	4.28	4.62
Total Glucosinolates	12.0	9.46	7.72	9.09

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254134	11254146	11254114	11254122
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Q2	Q2	Q2	Q2
Site	MBNW	MBNW	MBNW	MBNW
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS	NS
Plot	103	206	304	408
Entry	2	2	2	2
Covance LIMS Number	00400026	00400042	00400138	00400142
Amino Acids (mg/g)				
Aspartic Acid	14.0	15.3	14.5	14.7
Threonine	8.78	9.19	8.60	8.83
Serine	8.96	9.89	8.67	8.91
Glutamic Acid	33.0	37.6	32.3	34.5
Proline	11.2	13.0	11.2	11.9
Glycine	9.91	10.8	9.95	10.3
Alanine	8.73	9.70	8.79	9.06
Cystine	4.79	5.08	4.63	4.90
Valine	9.64	10.9	10.2	10.5
Methionine	3.90	4.14	3.83	3.96
Isoleucine	7.43	8.36	7.83	8.10
Leucine	13.6	15.2	13.8	14.2
Tyrosine	5.79	6.24	5.72	5.95
Phenylalanine	8.18	9.01	8.17	8.54
Lysine	12.2	13.3	11.8	12.4
Histidine	5.42	5.98	5.32	5.60
Arginine	12.0	13.3	12.0	12.5
Tryptophan	1.69	2.09	2.07	2.08

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254134	11254146	11254114	11254122
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Q2	Q2	Q2	Q2
Site	MBNW	MBNW	MBNW	MBNW
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS	NS
Plot	103	206	304	408
Entry	2	2	2	2
Covance LIMS Number	00400026	00400042	00400138	00400142
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.77	1.68	1.76	1.74
16:1 Palmitoleic	0.0953	0.0913	0.0933	0.0925
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.819	0.811	0.953	0.871
18:1 Oleic	28.5	27.6	28.9	28.6
18:2 Linoleic	8.62	7.95	8.14	8.19
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	4.12	3.96	4.13	4.09
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.266	0.262	0.285	0.271
20:1 Eicosenoic	0.548	0.610	0.581	0.561
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.134	0.133	0.131	0.135
22:1 Erucic	0.0778	0.0925	0.0890	0.054
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0564	0.0577	< 0.0400	< 0.0400
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	0.0536	0.0533	< 0.0400	< 0.0400

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254141	11254150	11254115	11254126
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	SValof Senator	SValof Senator	SValof Senator	SValof Senator
Site	MBNW	MBNW	MBNW	MBNW
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS	NS
Plot	110	204	311	407
Entry	4	4	4	4
Covance LIMS Number	00400016	00400048	00400101	00400066
Proximate (%)				
Moisture	4.87	4.95	4.74	4.87
Protein	20.0	20.4	19.6	20.8
Total Fat	45.5	45.5	47.0	46.1
Ash	3.91	3.74	4.16	3.51
Carbohydrates	25.7	25.4	24.5	24.7
Acid Detergent Fiber (%)	14.6	15.8	14.0	17.2
Neutral Detergent Fiber (%)	17.3	18.7	17.7	14.3
Total Dietary Fiber (%)	20.7	17.1	16.4	17.1
Vitamin E (mg/100g)	9.29	10.1	10.3	9.87
Phytic Acid (%)	2.27	2.17	2.38	1.85
Sinapic acid (ppm)	8380	8720	8680	8560
Minerals (ppm)				
Calcium	4040	4290	4300	3800
Copper	2.82	2.90	2.98	2.48
Iron	43.3	39.7	37.3	39.9
Magnesium	3300	3450	3380	3360
Manganese	34.6	32.6	31.1	39.5
Phosphorus	7330	7220	7800	6770
Potassium	5480	5720	6070	5280
Sodium	< 100	< 100	< 100	< 100
Zinc	29.5	29.8	29.0	30.2
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	7.32	6.73	5.61	5.83
Total Indolyl	2.92	3.16	3.14	3.65
Total Glucosinolates	10.4	10.0	8.89	9.67

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254141	11254150	11254115	11254126
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	SValof Senator	SValof Senator	SValof Senator	SValof Senator
Site	MBNW	MBNW	MBNW	MBNW
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS	NS
Plot	110	204	311	407
Entry	4	4	4	4
Covance LIMS Number	00400016	00400048	00400101	00400066
Amino Acids (mg/g)				
Aspartic Acid	14.4	14.6	13.8	14.9
Threonine	8.89	9.08	8.59	8.75
Serine	8.88	9.55	8.82	9.56
Glutamic Acid	35.3	36.7	34.9	37.6
Proline	12.4	12.6	12.0	13.2
Glycine	10.4	10.6	10.2	10.8
Alanine	8.96	9.28	8.69	9.39
Cystine	5.14	5.20	5.47	5.10
Valine	10.5	10.6	10.4	11.0
Methionine	3.94	3.84	3.96	3.87
Isoleucine	8.13	8.20	8.02	8.56
Leucine	14.1	14.7	13.9	14.9
Tyrosine	5.98	6.21	5.96	6.26
Phenylalanine	8.49	8.75	8.46	8.94
Lysine	12.5	12.9	12.4	13.0
Histidine	5.66	5.81	5.64	5.95
Arginine	12.6	12.9	12.4	13.5
Tryptophan	1.93	1.97	2.10	1.82

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254141	11254150	11254115	11254126
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	SValof Senator	SValof Senator	SValof Senator	SValof Senator
Site	MBNW	MBNW	MBNW	MBNW
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS	NS
Plot	110	204	311	407
Entry	4	4	4	4
Covance LIMS Number	00400016	00400048	00400101	00400066
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.64	1.61	1.66	1.60
16:1 Palmitoleic	0.0999	0.0959	0.105	0.0989
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.851	0.873	0.948	0.892
18:1 Oleic	28.0	27.7	28.6	28.0
18:2 Linoleic	8.04	7.88	7.80	7.80
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	3.94	3.84	3.80	3.84
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.264	0.268	0.281	0.268
20:1 Eicosenoic	0.513	0.526	0.521	0.538
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.127	0.128	0.127	0.130
22:1 Erucic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0610	0.0644	0.0687	< 0.0400
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	0.0467	0.0420	0.0449	< 0.0400

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254131	11254143	11254111	11254139
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	SValof Sponsor	SValof Sponsor	SValof Sponsor	SValof Sponsor
Site	MBNW	MBNW	MBNW	MBNW
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS	NS
Plot	102	202	305	409
Entry	3	3	3	3
Covance LIMS Number	00400012	00400003	00400055	00400118
Proximate (%)				
Moisture	4.75	5.21	4.89	4.30
Protein	20.6	20.2	20.1	20.0
Total Fat	35.3	44.9	44.6	45.2
Ash	3.88	3.60	3.62	4.01
Carbohydrates	35.5	26.1	26.8	26.5
Acid Detergent Fiber (%)	14.4	15.0	17.9	13.4
Neutral Detergent Fiber (%)	18.1	15.0	20.3	17.8
Total Dietary Fiber (%)	19.2	18.2	23.7	12.1
Vitamin E (mg/100g)	8.89	8.19	8.67	7.78
Phytic Acid (%)	2.54	2.14	2.23	2.21
Sinapic acid (ppm)	8820	8840	8810	9080
Minerals (ppm)				
Calcium	3380	3670	3840	3680
Copper	2.96	3.06	2.97	3.05
Iron	55.2	53.2	56.1	53.4
Magnesium	3460	3000	3220	3050
Manganese	38.9	41.6	43.7	42.9
Phosphorus	7830	6890	7340	7370
Potassium	6120	5850	6070	6140
Sodium	< 100	< 100	< 100	< 100
Zinc	33.9	30.8	30.9	28.7
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	16.9	17.2	17.4	14.1
Total Indolyl	2.63	2.11	4.35	2.10
Total Glucosinolates	19.7	19.5	21.9	16.3

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254131	11254143	11254111	11254139
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	SValof Sponsor	SValof Sponsor	SValof Sponsor	SValof Sponsor
Site	MBNW	MBNW	MBNW	MBNW
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS	NS
Plot	102	202	305	409
Entry	3	3	3	3
Covance LIMS Number	00400012	00400003	00400055	00400118
Amino Acids (mg/g)				
Aspartic Acid	14.9	14.8	14.6	14.5
Threonine	8.92	8.78	8.73	8.43
Serine	9.26	8.98	9.02	8.99
Glutamic Acid	37.4	35.9	35.7	34.7
Proline	12.7	13.0	12.2	12.0
Glycine	10.7	10.5	10.5	10.3
Alanine	9.17	8.97	8.88	8.70
Cystine	5.27	5.13	5.01	5.23
Valine	10.7	10.8	10.7	10.5
Methionine	4.21	3.97	3.96	4.12
Isoleucine	8.34	8.31	8.26	8.14
Leucine	14.7	14.3	14.2	14.0
Tyrosine	5.97	6.06	6.02	6.02
Phenylalanine	8.70	8.65	8.64	8.56
Lysine	12.9	12.6	12.6	12.3
Histidine	5.85	5.67	5.62	5.50
Arginine	13.6	12.9	12.7	12.5
Tryptophan	1.93	1.95	1.59	2.18

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254131	11254143	11254111	11254139
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	SValof Sponsor	SValof Sponsor	SValof Sponsor	SValof Sponsor
Site	MBNW	MBNW	MBNW	MBNW
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS	NS
Plot	102	202	305	409
Entry	3	3	3	3
Covance LIMS Number	00400012	00400003	00400055	00400118
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.44	1.86	1.86	1.89
16:1 Palmitoleic	0.0796	0.108	0.104	0.106
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.646	0.831	0.845	0.889
18:1 Oleic	21.2	26.6	25.9	26.7
18:2 Linoleic	6.49	8.26	7.99	8.10
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	3.35	4.25	4.10	4.17
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.207	0.274	0.269	0.275
20:1 Eicosenoic	0.401	0.520	0.526	0.517
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.105	0.137	0.133	0.134
22:1 Erucic	< 0.0400	0.0560	0.0445	0.0477
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0441	0.0595	0.0650	0.0575
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	< 0.0400	0.0462	0.0468	0.0494

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248709	11248725	11248699	11248733
MON Number	MON 88302	MON 88302	MON 88302	MON 88302
Material Name	MON 88302	MON 88302	MON 88302	MON 88302
Site	MBPL	MBPL	MBPL	MBPL
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 4
Treatment	S	S	S	S
Plot	103	204	310	411
Entry	8	8	8	8
Covance LIMS Number	00400005	00400027	00400013	00400145
Proximate (%)				
Moisture	5.74	5.93	5.45	5.60
Protein	21.9	21.8	23.0	22.7
Total Fat	43.1	41.4	42.5	41.5
Ash	3.76	3.80	3.95	4.13
Carbohydrates	25.5	27.1	25.1	26.1
Acid Detergent Fiber (%)	14.3	15.2	17.2	16.5
Neutral Detergent Fiber (%)	17.3	18.7	18.5	18.9
Total Dietary Fiber (%)	17.6	23.5	23.2	21.0
Vitamin E (mg/100g)	11.5	10.5	11.3	10.1
Phytic Acid (%)	2.10	2.43	2.31	2.07
Sinapic acid (ppm)	9360	8920	8970	9290
Minerals (ppm)				
Calcium	3460	3340	3270	3400
Copper	3.33	3.25	3.37	3.16
Iron	42.5	41.1	42.5	40.4
Magnesium	3640	3930	3970	3770
Manganese	35.1	35.9	39.2	38.2
Phosphorus	7040	7540	7420	7350
Potassium	5930	6510	7220	6710
Sodium	< 100	< 100	< 100	< 100
Zinc	28.7	29.4	30.3	29.5
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	2.03	3.59	1.81	3.80
Total Indolyl	3.10	5.42	1.58	4.59
Total Glucosinolates	5.21	9.19	3.46	8.58

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248709	11248725	11248699	11248733
MON Number	MON 88302	MON 88302	MON 88302	MON 88302
Material Name	MON 88302	MON 88302	MON 88302	MON 88302
Site	MBPL	MBPL	MBPL	MBPL
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 4
Treatment	S	S	S	S
Plot	103	204	310	411
Entry	8	8	8	8
Covance LIMS Number	00400005	00400027	00400013	00400145
Amino Acids (mg/g)				
Aspartic Acid	17.8	17.2	17.3	17.1
Threonine	9.83	10.0	10.0	10.0
Serine	9.93	10.2	10.3	10.3
Glutamic Acid	39.1	39.1	41.7	40.8
Proline	12.4	12.5	13.9	13.5
Glycine	11.6	11.4	11.7	11.6
Alanine	9.96	9.79	10.1	10.2
Cystine	4.76	5.12	5.49	5.56
Valine	12.1	11.4	12.2	11.9
Methionine	4.09	4.35	4.50	4.41
Isoleucine	9.45	8.92	9.51	9.37
Leucine	16.3	16.0	16.6	16.5
Tyrosine	6.77	6.90	6.81	6.79
Phenylalanine	9.85	9.75	9.95	9.93
Lysine	12.9	13.0	13.7	13.6
Histidine	6.00	5.97	6.31	6.21
Arginine	14.9	14.2	15.5	14.7
Tryptophan	2.32	2.27	2.37	2.39

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248709	11248725	11248699	11248733
MON Number	MON 88302	MON 88302	MON 88302	MON 88302
Material Name	MON 88302	MON 88302	MON 88302	MON 88302
Site	MBPL	MBPL	MBPL	MBPL
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 4
Treatment	S	S	S	S
Plot	103	204	310	411
Entry	8	8	8	8
Covance LIMS Number	00400005	00400027	00400013	00400145
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.68	1.70	1.71	1.69
16:1 Palmitoleic	0.0900	0.0894	0.0930	0.0903
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.611	0.626	0.649	0.627
18:1 Oleic	24.4	24.7	25.4	24.5
18:2 Linoleic	8.11	8.25	8.20	8.02
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	3.72	3.70	3.80	3.59
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.207	0.209	0.217	0.212
20:1 Eicosenoic	0.430	0.432	0.449	0.431
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.105	0.105	0.108	0.105
22:1 Erucic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0638	0.0635	0.0658	0.0665
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	0.0499	0.0530	0.0483	0.0519

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248736	11248716	11248713	11248723
MON Number	MON 88302	MON 88302	MON 88302	Conventional
Material Name	MON 88302	MON 88302	MON 88302	Ebony
Site	MBPL	MBPL	MBPL	MBPL
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 2
Treatment	NS	NS	NS	NS
Plot	108	203	311	206
Entry	9	9	9	1
Covance LIMS Number	00400015	00400092	00400057	00400024
Proximate (%)				
Moisture	5.51	5.18	5.68	5.47
Protein	22.5	23.0	22.3	22.8
Total Fat	42.3	42.4	41.3	42.4
Ash	3.98	4.15	4.00	3.94
Carbohydrates	25.7	25.3	26.7	25.4
Acid Detergent Fiber (%)	14.6	14.2	16.2	11.9
Neutral Detergent Fiber (%)	17.0	16.1	17.8	14.6
Total Dietary Fiber (%)	19.0	17.0	19.6	19.3
Vitamin E (mg/100g)	11.4	11.6	11.1	7.24
Phytic Acid (%)	2.37	2.20	2.27	2.28
Sinapic acid (ppm)	9110	9000	9000	8160
Minerals (ppm)				
Calcium	3340	3470	3480	3030
Copper	3.19	3.40	3.21	3.48
Iron	43.2	43.7	41.7	50.0
Magnesium	4060	3830	3890	3830
Manganese	38.2	36.6	35.8	37.8
Phosphorus	7700	7600	7890	7670
Potassium	6350	6670	7410	7260
Sodium	< 100	< 100	< 100	< 100
Zinc	31.2	30.9	30.9	33.8
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	2.79	2.74	4.20	6.14
Total Indolyl	3.99	4.37	4.69	5.57
Total Glucosinolates	6.90	7.21	9.00	11.9

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248736	11248716	11248713	11248723
MON Number	MON 88302	MON 88302	MON 88302	Conventional
Material Name	MON 88302	MON 88302	MON 88302	Ebony
Site	MBPL	MBPL	MBPL	MBPL
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 2
Treatment	NS	NS	NS	NS
Plot	108	203	311	206
Entry	9	9	9	1
Covance LIMS Number	00400015	00400092	00400057	00400024
Amino Acids (mg/g)				
Aspartic Acid	17.4	18.0	17.0	17.5
Threonine	9.94	10.4	9.76	10.1
Serine	10.1	10.8	10.2	10.6
Glutamic Acid	40.0	41.7	39.7	42.8
Proline	12.8	13.1	13.3	13.7
Glycine	11.7	12.0	11.4	11.9
Alanine	10.0	10.4	9.93	10.3
Cystine	5.18	5.38	5.14	5.66
Valine	12.0	11.9	11.7	12.0
Methionine	4.42	4.35	4.30	4.60
Isoleucine	9.41	9.40	9.15	9.44
Leucine	16.3	16.9	16.1	16.8
Tyrosine	6.83	7.07	6.73	6.86
Phenylalanine	9.83	10.3	9.76	10.1
Lysine	13.4	13.7	13.2	13.7
Histidine	6.16	6.35	6.06	6.39
Arginine	15.3	15.1	14.4	15.6
Tryptophan	2.35	2.51	2.04	2.32

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248736	11248716	11248713	11248723
MON Number	MON 88302	MON 88302	MON 88302	Conventional
Material Name	MON 88302	MON 88302	MON 88302	Ebony
Site	MBPL	MBPL	MBPL	MBPL
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 2
Treatment	NS	NS	NS	NS
Plot	108	203	311	206
Entry	9	9	9	1
Covance LIMS Number	00400015	00400092	00400057	00400024
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.76	1.74	1.68	1.73
16:1 Palmitoleic	0.0922	0.0939	0.0892	0.0979
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.630	0.637	0.622	0.733
18:1 Oleic	24.7	24.2	23.4	26.3
18:2 Linoleic	8.38	8.19	7.82	7.88
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	3.80	3.69	3.47	3.24
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.216	0.214	0.208	0.240
20:1 Eicosenoic	0.457	0.450	0.428	0.448
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.111	0.108	0.104	0.120
22:1 Erucic	0.0738	0.0410	< 0.0400	< 0.0400
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0643	0.0640	0.0715	0.0749
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	0.0536	0.0604	0.0430	0.0600

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248710	11248697	11248728	11248717
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Ebony	Ebony	Croplan 601	Croplan 601
Site	MBPL	MBPL	MBPL	MBPL
Replicate Number	Rep 3	Rep 4	Rep 1	Rep 2
Treatment	NS	NS	NS	NS
Plot	306	404	101	211
Entry	1	1	3	3
Covance LIMS Number	00400117	00400119	00400114	00400086
Proximate (%)				
Moisture	5.33	4.93	5.18	5.58
Protein	21.8	22.1	23.6	22.7
Total Fat	41.5	41.5	40.8	40.4
Ash	4.15	4.14	4.21	4.25
Carbohydrates	27.2	27.3	26.2	27.1
Acid Detergent Fiber (%)	15.3	14.1	13.3	16.0
Neutral Detergent Fiber (%)	17.1	16.5	15.1	18.6
Total Dietary Fiber (%)	13.8	17.8	16.1	18.4
Vitamin E (mg/100g)	7.31	7.13	8.56	9.62
Phytic Acid (%)	2.28	2.23	2.27	2.35
Sinapic acid (ppm)	8150	8190	8910	8360
Minerals (ppm)				
Calcium	3260	3260	3800	3280
Copper	3.84	3.97	3.13	2.90
Iron	47.1	47.7	61.7	55.0
Magnesium	3780	4010	3590	4120
Manganese	35.1	34.5	38.0	39.7
Phosphorus	7740	7590	7590	7940
Potassium	7390	7680	7140	7080
Sodium	< 100	< 100	< 100	< 100
Zinc	31.3	31.2	34.4	32.9
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	2.90	5.26	2.78	3.11
Total Indolyl	3.09	3.71	3.45	3.83
Total Glucosinolates	6.08	9.06	6.34	7.03

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248710	11248697	11248728	11248717
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Ebony	Ebony	Croplan 601	Croplan 601
Site	MBPL	MBPL	MBPL	MBPL
Replicate Number	Rep 3	Rep 4	Rep 1	Rep 2
Treatment	NS	NS	NS	NS
Plot	306	404	101	211
Entry	1	1	3	3
Covance LIMS Number	00400117	00400119	00400114	00400086
Amino Acids (mg/g)				
Aspartic Acid	16.9	16.4	18.2	17.9
Threonine	9.63	9.45	9.96	10.0
Serine	9.82	10.1	10.7	10.6
Glutamic Acid	38.3	39.5	42.7	41.1
Proline	12.3	12.8	14.0	13.2
Glycine	11.3	11.3	12.4	12.1
Alanine	9.69	9.71	10.5	10.4
Cystine	5.00	5.48	5.90	5.40
Valine	11.7	11.7	12.6	12.1
Methionine	4.22	4.46	4.76	4.44
Isoleucine	9.20	9.17	9.84	9.44
Leucine	15.9	15.8	17.1	16.7
Tyrosine	6.65	6.57	7.02	6.81
Phenylalanine	9.63	9.63	10.4	9.99
Lysine	12.9	13.3	14.0	13.7
Histidine	5.90	6.05	6.48	6.26
Arginine	14.1	14.1	15.4	15.0
Tryptophan	2.50	2.54	2.79	2.42

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248710	11248697	11248728	11248717
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Ebony	Ebony	Croplan 601	Croplan 601
Site	MBPL	MBPL	MBPL	MBPL
Replicate Number	Rep 3	Rep 4	Rep 1	Rep 2
Treatment	NS	NS	NS	NS
Plot	306	404	101	211
Entry	1	1	3	3
Covance LIMS Number	00400117	00400119	00400114	00400086
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.74	1.73	1.51	1.54
16:1 Palmitoleic	0.102	0.103	0.0988	0.101
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.760	0.752	0.724	0.706
18:1 Oleic	25.3	25.5	23.9	23.7
18:2 Linoleic	7.57	7.51	7.22	7.45
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	3.02	2.97	3.77	3.77
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.241	0.240	0.236	0.230
20:1 Eicosenoic	0.418	0.430	0.511	0.502
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.123	0.122	0.121	0.118
22:1 Erucic	< 0.0400	0.0414	0.137	0.0581
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0722	0.0755	0.0606	0.0567
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	0.0672	0.0643	0.0630	0.0613

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248704	11248732	11248724	11248714
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Croplan 601	Croplan 601	Hyola 401	Hyola 401
Site	MBPL	MBPL	MBPL	MBPL
Replicate Number	Rep 3	Rep 4	Rep 2	Rep 3
Treatment	NS	NS	NS	NS
Plot	305	409	205	301
Entry	3	3	5	5
Covance LIMS Number	00400051	00400148	00400115	00400131
Proximate (%)				
Moisture	5.51	5.52	5.42	5.53
Protein	22.1	24.0	24.0	24.2
Total Fat	40.9	40.5	38.5	38.9
Ash	4.21	4.23	4.06	3.93
Carbohydrates	27.3	25.8	28.0	27.4
Acid Detergent Fiber (%)	12.7	14.3	12.9	16.1
Neutral Detergent Fiber (%)	17.7	18.7	16.0	17.8
Total Dietary Fiber (%)	19.3	20.5	20.3	19.8
Vitamin E (mg/100g)	9.57	9.57	9.07	10.9
Phytic Acid (%)	2.33	2.26	2.12	1.93
Sinapic acid (ppm)	8850	8640	7430	7270
Minerals (ppm)				
Calcium	3380	3160	3770	3650
Copper	2.77	2.82	2.67	2.76
Iron	53.3	55.4	47.0	48.5
Magnesium	4120	4050	3650	3720
Manganese	38.5	41.7	32.6	31.6
Phosphorus	8090	7780	7070	6890
Potassium	7420	7050	6960	6690
Sodium	< 100	< 100	< 100	< 100
Zinc	30.9	32.8	29.8	27.8
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	23.6	3.41	3.65	3.67
Total Indolyl	3.19	4.02	4.77	4.15
Total Glucosinolates	27.0	7.50	8.62	8.06

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248704	11248732	11248724	11248714
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Croplan 601	Croplan 601	Hyola 401	Hyola 401
Site	MBPL	MBPL	MBPL	MBPL
Replicate Number	Rep 3	Rep 4	Rep 2	Rep 3
Treatment	NS	NS	NS	NS
Plot	305	409	205	301
Entry	3	3	5	5
Covance LIMS Number	00400051	00400148	00400115	00400131
Amino Acids (mg/g)				
Aspartic Acid	17.3	18.2	18.6	18.7
Threonine	9.71	10.2	10.2	10.3
Serine	10.0	10.8	10.8	11.1
Glutamic Acid	39.5	44.0	43.9	44.4
Proline	13.0	14.2	14.1	14.5
Glycine	11.7	12.5	12.5	12.6
Alanine	9.90	10.5	10.5	10.8
Cystine	4.88	5.97	6.21	6.17
Valine	11.9	12.6	12.8	12.7
Methionine	4.13	4.82	4.88	5.03
Isoleucine	9.32	9.83	10.1	9.94
Leucine	16.1	17.3	17.5	17.5
Tyrosine	6.76	7.03	6.94	7.11
Phenylalanine	9.81	10.5	10.2	10.7
Lysine	13.2	14.3	14.4	14.5
Histidine	6.06	6.58	6.68	6.69
Arginine	14.5	15.6	15.6	15.7
Tryptophan	2.40	2.72	2.86	2.92

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248704	11248732	11248724	11248714
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Croplan 601	Croplan 601	Hyola 401	Hyola 401
Site	MBPL	MBPL	MBPL	MBPL
Replicate Number	Rep 3	Rep 4	Rep 2	Rep 3
Treatment	NS	NS	NS	NS
Plot	305	409	205	301
Entry	3	3	5	5
Covance LIMS Number	00400051	00400148	00400115	00400131
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.55	1.52	1.45	1.53
16:1 Palmitoleic	0.100	0.0986	0.0797	0.0780
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.713	0.692	0.718	0.782
18:1 Oleic	23.4	24.1	21.1	23.0
18:2 Linoleic	7.32	7.46	6.16	6.39
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	3.69	3.73	3.28	3.38
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.233	0.233	0.215	0.240
20:1 Eicosenoic	0.514	0.492	0.464	0.564
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.118	0.120	0.101	0.113
22:1 Erucic	0.257	0.165	0.346	0.522
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0723	0.0705	0.0627	< 0.0400
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	0.0505	0.0573	0.0542	< 0.0400

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248702	11248720	11248707	11248694
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Hyola 401	Q2	Q2	Q2
Site	MBPL	MBPL	MBPL	MBPL
Replicate Number	Rep 4	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS	NS
Plot	407	208	303	403
Entry	5	2	2	2
Covance LIMS Number	00400022	00400041	00400019	00400049
Proximate (%)				
Moisture	5.87	5.48	5.18	5.29
Protein	23.0	22.2	22.3	22.0
Total Fat	38.9	41.0	41.0	41.2
Ash	4.08	3.99	3.85	3.81
Carbohydrates	28.2	27.3	27.7	27.7
Acid Detergent Fiber (%)	16.7	17.2	14.8	20.1
Neutral Detergent Fiber (%)	20.5	17.2	18.0	19.8
Total Dietary Fiber (%)	23.9	20.8	25.1	22.5
Vitamin E (mg/100g)	10.4	10.4	11.9	11.8
Phytic Acid (%)	2.55	2.12	2.32	1.88
Sinapic acid (ppm)	7390	7710	7910	7870
Minerals (ppm)				
Calcium	3560	2590	2580	2390
Copper	2.67	2.91	3.04	2.73
Iron	44.2	46.9	54.0	50.2
Magnesium	3990	4210	4090	4140
Manganese	32.9	32.4	33.3	31.2
Phosphorus	7330	7230	6960	6930
Potassium	7250	8300	7310	7830
Sodium	< 100	< 100	< 100	< 100
Zinc	28.2	32.4	32.5	30.9
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	3.51	4.96	4.56	4.48
Total Indolyl	5.98	5.72	3.32	5.06
Total Glucosinolates	9.69	11.0	8.34	9.9

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248702	11248720	11248707	11248694
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Hyola 401	Q2	Q2	Q2
Site	MBPL	MBPL	MBPL	MBPL
Replicate Number	Rep 4	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS	NS
Plot	407	208	303	403
Entry	5	2	2	2
Covance LIMS Number	00400022	00400041	00400019	00400049
Amino Acids (mg/g)				
Aspartic Acid	18.5	16.4	16.2	15.9
Threonine	10.2	9.84	9.88	9.59
Serine	10.7	10.6	10.3	9.88
Glutamic Acid	41.6	40.6	41.2	40.0
Proline	13.5	13.8	13.9	14.0
Glycine	12.1	11.6	11.6	11.4
Alanine	10.2	10.3	10.2	9.88
Cystine	5.06	5.33	5.91	5.46
Valine	12.2	11.7	11.6	11.6
Methionine	4.23	4.30	4.51	4.28
Isoleucine	9.49	9.03	8.96	9.00
Leucine	16.8	16.4	16.1	15.9
Tyrosine	6.99	6.76	6.57	6.49
Phenylalanine	10.3	9.76	9.59	9.45
Lysine	13.6	14.2	14.2	14.0
Histidine	6.30	6.33	6.41	6.32
Arginine	15.4	14.2	14.5	14.1
Tryptophan	2.40	2.24	2.18	2.04

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248702	11248720	11248707	11248694
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Hyola 401	Q2	Q2	Q2
Site	MBPL	MBPL	MBPL	MBPL
Replicate Number	Rep 4	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS	NS
Plot	407	208	303	403
Entry	5	2	2	2
Covance LIMS Number	00400022	00400041	00400019	00400049
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.56	1.63	1.61	1.61
16:1 Palmitoleic	0.0818	0.0926	0.0954	0.0888
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.784	0.683	0.676	0.693
18:1 Oleic	23.3	23.5	24.3	23.6
18:2 Linoleic	6.72	7.73	7.92	7.62
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	3.50	3.48	3.61	3.47
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.240	0.241	0.240	0.244
20:1 Eicosenoic	0.540	0.536	0.555	0.577
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	0.0411
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.111	0.135	0.135	0.132
22:1 Erucic	0.523	0.153	0.219	0.357
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0651	0.0561	0.0629	0.0698
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	0.0599	0.0611	0.0664	0.0618

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248700	11248721	11248712	11248735
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	SP Armada	SP Armada	SP Armada	SP Armada
Site	MBPL	MBPL	MBPL	MBPL
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS	NS
Plot	111	202	304	401
Entry	4	4	4	4
Covance LIMS Number	00400018	00400140	00400128	00400144
Proximate (%)				
Moisture	5.00	4.74	4.79	5.07
Protein	21.5	23.5	22.7	23.2
Total Fat	41.3	39.4	40.7	41.6
Ash	4.12	4.31	4.17	4.00
Carbohydrates	28.1	28.1	27.6	26.1
Acid Detergent Fiber (%)	14.7	12.0	10.6	13.9
Neutral Detergent Fiber (%)	16.3	17.1	15.0	16.9
Total Dietary Fiber (%)	22.7	20.0	19.1	18.8
Vitamin E (mg/100g)	10.5	10.4	10.5	9.89
Phytic Acid (%)	2.25	2.06	2.10	1.82
Sinapic acid (ppm)	8520	8290	7990	8500
Minerals (ppm)				
Calcium	3110	2920	2960	2920
Copper	3.01	2.74	2.86	2.60
Iron	44.0	50.7	44.7	43.9
Magnesium	3900	4060	3930	3770
Manganese	32.7	32.2	31.6	30.9
Phosphorus	7160	7370	7400	6690
Potassium	7830	8330	8420	7560
Sodium	< 100	< 100	< 100	< 100
Zinc	31.5	31.5	32.3	31.5
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	2.92	3.28	2.92	3.30
Total Indolyl	3.89	4.25	3.60	4.36
Total Glucosinolates	7.35	8.32	7.15	8.52

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248700	11248721	11248712	11248735
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	SP Armada	SP Armada	SP Armada	SP Armada
Site	MBPL	MBPL	MBPL	MBPL
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS	NS
Plot	111	202	304	401
Entry	4	4	4	4
Covance LIMS Number	00400018	00400140	00400128	00400144
Amino Acids (mg/g)				
Aspartic Acid	16.5	17.3	17.0	16.8
Threonine	9.89	10.4	10.1	10.1
Serine	10.1	10.5	10.6	10.4
Glutamic Acid	38.7	42.2	40.5	41.8
Proline	12.5	13.8	13.6	13.8
Glycine	11.4	12.1	11.8	11.9
Alanine	10.1	10.6	10.4	10.4
Cystine	5.36	5.97	5.89	5.86
Valine	11.3	12.4	12.0	12.2
Methionine	4.45	4.83	4.75	4.72
Isoleucine	8.73	9.57	9.27	9.39
Leucine	15.8	16.9	16.4	16.6
Tyrosine	6.75	6.96	6.79	6.82
Phenylalanine	9.47	10.1	9.78	9.88
Lysine	13.7	14.9	14.4	14.6
Histidine	6.16	6.65	6.39	6.57
Arginine	14.1	14.8	14.4	14.6
Tryptophan	2.14	2.69	2.55	2.51

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248700	11248721	11248712	11248735
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	SP Armada	SP Armada	SP Armada	SP Armada
Site	MBPL	MBPL	MBPL	MBPL
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS	NS
Plot	111	202	304	401
Entry	4	4	4	4
Covance LIMS Number	00400018	00400140	00400128	00400144
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.66	1.62	1.68	1.67
16:1 Palmitoleic	0.0914	0.0891	0.0986	0.0913
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.599	0.575	0.614	0.610
18:1 Oleic	23.8	21.2	22.6	23.0
18:2 Linoleic	8.72	8.27	8.50	8.38
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	4.13	4.01	3.97	4.07
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.220	0.216	0.227	0.226
20:1 Eicosenoic	0.476	0.485	0.483	0.499
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.134	0.138	0.143	0.140
22:1 Erucic	0.0703	0.220	0.111	0.101
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0586	< 0.0400	0.0493	< 0.0400
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	0.0650	< 0.0400	0.0758	< 0.0400

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248631	11248621	11248612	11248623
MON Number	MON 88302	MON 88302	MON 88302	MON 88302
Material Name	MON 88302	MON 88302	MON 88302	MON 88302
Site	MNCA	MNCA	MNCA	MNCA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	S	S	S	NS
Plot	207	308	404	111
Entry	8	8	8	9
Covance LIMS Number	00400116	00400065	00400121	00400032
Proximate (%)				
Moisture	5.37	5.61	5.58	6.59
Protein	20.8	20.3	20.8	22.4
Total Fat	43.3	43.7	44.9	40.7
Ash	4.16	4.20	3.97	3.87
Carbohydrates	26.4	26.2	24.8	26.4
Acid Detergent Fiber (%)	16.5	19.1	15.1	15.1
Neutral Detergent Fiber (%)	18.5	20.0	16.9	14.8
Total Dietary Fiber (%)	16.0	20.2	21.0	16.3
Vitamin E (mg/100g)	11.9	13.8	12.2	12.8
Phytic Acid (%)	2.11	2.33	2.02	2.05
Sinapic acid (ppm)	9630	10200	10200	9850
Minerals (ppm)				
Calcium	4490	4440	4330	4600
Copper	4.32	4.20	3.93	4.35
Iron	38.9	41.7	38.3	43.8
Magnesium	3600	3740	3440	3620
Manganese	35.8	36.2	37.7	46.3
Phosphorus	7510	8240	6970	7360
Potassium	6330	6620	5510	5880
Sodium	< 100	< 100	< 100	< 100
Zinc	33.3	43.0	35.1	40.0
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	4.12	4.61	4.42	3.66
Total Indolyl	3.59	4.00	4.22	5.73
Total Glucosinolates	7.90	8.83	8.84	9.64

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248631	11248621	11248612	11248623
MON Number	MON 88302	MON 88302	MON 88302	MON 88302
Material Name	MON 88302	MON 88302	MON 88302	MON 88302
Site	MNCA	MNCA	MNCA	MNCA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	S	S	S	NS
Plot	207	308	404	111
Entry	8	8	8	9
Covance LIMS Number	00400116	00400065	00400121	00400032
Amino Acids (mg/g)				
Aspartic Acid	15.1	14.9	14.8	16.5
Threonine	8.92	8.88	8.92	9.93
Serine	9.40	9.23	9.26	10.4
Glutamic Acid	36.5	36.2	36.5	41.5
Proline	12.2	13.1	13.0	13.8
Glycine	10.6	10.5	10.6	11.4
Alanine	9.21	9.21	9.16	9.87
Cystine	5.43	5.04	5.46	6.03
Valine	10.9	10.9	10.7	11.5
Methionine	4.21	4.03	4.25	4.63
Isoleucine	8.52	8.43	8.31	8.99
Leucine	14.7	14.6	14.6	16.1
Tyrosine	6.01	6.13	6.15	6.70
Phenylalanine	8.69	8.82	8.80	9.64
Lysine	12.9	12.8	12.7	13.9
Histidine	5.83	5.78	5.79	6.35
Arginine	13.1	13.1	13.1	15.0
Tryptophan	2.22	1.73	2.27	2.24

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248631	11248621	11248612	11248623
MON Number	MON 88302	MON 88302	MON 88302	MON 88302
Material Name	MON 88302	MON 88302	MON 88302	MON 88302
Site	MNCA	MNCA	MNCA	MNCA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	S	S	S	NS
Plot	207	308	404	111
Entry	8	8	8	9
Covance LIMS Number	00400116	00400065	00400121	00400032
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.75	1.76	1.82	1.60
16:1 Palmitoleic	0.0865	0.0873	0.0909	0.0830
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.681	0.702	0.702	0.599
18:1 Oleic	25.3	25.4	26.3	24.2
18:2 Linoleic	8.33	8.29	8.50	7.85
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	4.00	4.02	4.16	3.96
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.214	0.220	0.223	0.200
20:1 Eicosenoic	0.436	0.447	0.465	0.445
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.110	0.112	0.117	0.104
22:1 Erucic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0485	< 0.0400	0.0671	0.0578
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	0.0458	< 0.0400	0.0639	0.0509

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248644	11248624	11248634	11248648
MON Number	MON 88302	MON 88302	MON 88302	Conventional
Material Name	MON 88302	MON 88302	MON 88302	Ebony
Site	MNCA	MNCA	MNCA	MNCA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	206	311	406	108
Entry	9	9	9	1
Covance LIMS Number	00400014	00400129	00400072	00400149
Proximate (%)				
Moisture	6.46	6.72	6.38	6.54
Protein	20.4	22.1	19.5	22.5
Total Fat	43.2	42.0	44.3	42.3
Ash	4.05	4.03	3.94	4.77
Carbohydrates	25.9	25.2	25.9	23.9
Acid Detergent Fiber (%)	16.0	13.8	16.7	16.5
Neutral Detergent Fiber (%)	18.1	15.3	17.3	18.3
Total Dietary Fiber (%)	21.8	19.1	17.5	21.5
Vitamin E (mg/100g)	13.1	14.5	13.3	11.0
Phytic Acid (%)	2.21	2.10	2.06	2.59
Sinapic acid (ppm)	9670	10300	9790	9060
Minerals (ppm)				
Calcium	4990	4300	4500	4600
Copper	4.25	4.09	4.23	3.84
Iron	38.1	40.1	38.3	49.8
Magnesium	3340	3620	3570	3450
Manganese	36.4	40.9	35.3	31.5
Phosphorus	6880	7100	7280	8670
Potassium	5780	5620	5990	6710
Sodium	< 100	< 100	< 100	< 100
Zinc	33.3	46.7	36.3	30.5
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	4.63	3.53	5.43	5.43
Total Indolyl	3.53	3.77	4.10	3.07
Total Glucosinolates	8.37	7.59	9.73	8.78

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248644	11248624	11248634	11248648
MON Number	MON 88302	MON 88302	MON 88302	Conventional
Material Name	MON 88302	MON 88302	MON 88302	Ebony
Site	MNCA	MNCA	MNCA	MNCA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	206	311	406	108
Entry	9	9	9	1
Covance LIMS Number	00400014	00400129	00400072	00400149
Amino Acids (mg/g)				
Aspartic Acid	14.7	15.9	14.0	16.6
Threonine	8.98	9.70	8.61	9.80
Serine	9.09	10.2	8.76	10.0
Glutamic Acid	35.9	40.2	34.8	41.1
Proline	12.3	13.8	12.2	13.6
Glycine	10.4	11.3	10.2	11.5
Alanine	9.05	9.92	8.87	9.95
Cystine	5.19	5.89	4.94	5.67
Valine	10.7	11.5	10.5	11.8
Methionine	4.13	4.54	3.67	4.46
Isoleucine	8.26	8.90	8.14	9.25
Leucine	14.3	15.8	14.0	16.1
Tyrosine	6.05	6.33	5.89	6.61
Phenylalanine	8.64	9.26	8.39	9.71
Lysine	12.6	13.8	12.5	13.5
Histidine	5.68	6.28	5.61	6.24
Arginine	13.5	14.1	12.5	14.5
Tryptophan	1.99	2.54	1.58	2.52

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248644	11248624	11248634	11248648
MON Number	MON 88302	MON 88302	MON 88302	Conventional
Material Name	MON 88302	MON 88302	MON 88302	Ebony
Site	MNCA	MNCA	MNCA	MNCA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	206	311	406	108
Entry	9	9	9	1
Covance LIMS Number	00400014	00400129	00400072	00400149
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.73	1.65	1.77	1.67
16:1 Palmitoleic	0.0880	0.0853	0.0859	0.0944
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.648	0.623	0.706	0.737
18:1 Oleic	25.8	24.4	26.1	25.8
18:2 Linoleic	8.43	7.83	8.00	7.81
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	4.11	4.02	2.75	3.50
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.213	0.204	0.230	0.225
20:1 Eicosenoic	0.451	0.446	0.457	0.428
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.106	0.106	0.110	0.108
22:1 Erucic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0585	< 0.0400	< 0.0400	0.0691
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	0.0509	< 0.0400	< 0.0400	0.0476

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248629	11248626	11248614	11248607
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Ebony	Ebony	Ebony	DSV Ability
Site	MNCA	MNCA	MNCA	MNCA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	201	304	405	102
Entry	1	1	1	5
Covance LIMS Number	00400073	00400040	00400045	00400110
Proximate (%)				
Moisture	6.90	6.33	6.98	6.62
Protein	22.6	21.6	20.0	23.4
Total Fat	42.8	44.1	44.7	41.0
Ash	3.50	3.73	3.60	3.91
Carbohydrates	24.2	24.2	24.7	25.1
Acid Detergent Fiber (%)	15.0	17.0	17.4	15.0
Neutral Detergent Fiber (%)	17.0	16.7	18.1	17.3
Total Dietary Fiber (%)	16.2	16.5	19.5	15.3
Vitamin E (mg/100g)	9.45	9.96	9.99	11.0
Phytic Acid (%)	2.02	2.20	2.00	2.07
Sinapic acid (ppm)	8710	8980	9010	7980
Minerals (ppm)				
Calcium	3920	3960	4300	3820
Copper	3.89	3.80	3.82	3.47
Iron	50.3	45.9	43.0	51.7
Magnesium	3370	3560	3320	3590
Manganese	43.0	39.2	39.1	39.1
Phosphorus	6690	7260	6970	6820
Potassium	5890	5650	5610	5870
Sodium	< 100	< 100	< 100	< 100
Zinc	34.1	33.0	34.1	34.5
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	2.72	4.35	5.73	2.17
Total Indolyl	3.84	5.30	4.04	2.93
Total Glucosinolates	6.66	9.80	9.91	5.15

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248629	11248626	11248614	11248607
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Ebony	Ebony	Ebony	DSV Ability
Site	MNCA	MNCA	MNCA	MNCA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	201	304	405	102
Entry	1	1	1	5
Covance LIMS Number	00400073	00400040	00400045	00400110
Amino Acids (mg/g)				
Aspartic Acid	18.3	16.8	15.0	19.3
Threonine	9.85	9.48	9.04	10.2
Serine	10.8	10.0	9.47	10.8
Glutamic Acid	41.4	39.0	37.0	41.1
Proline	13.5	13.1	12.1	13.0
Glycine	12.1	11.4	10.5	12.5
Alanine	10.2	9.75	9.15	10.5
Cystine	5.03	4.89	5.05	4.83
Valine	12.2	11.7	10.7	12.7
Methionine	4.01	3.90	4.01	4.29
Isoleucine	9.61	9.16	8.25	9.88
Leucine	16.8	16.0	14.7	17.2
Tyrosine	6.95	6.75	6.11	7.12
Phenylalanine	10.1	9.59	8.77	10.4
Lysine	13.2	12.9	12.6	13.1
Histidine	6.28	5.96	5.71	6.27
Arginine	15.4	14.2	13.0	15.6
Tryptophan	2.19	2.31	2.01	2.78

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248629	11248626	11248614	11248607
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Ebony	Ebony	Ebony	DSV Ability
Site	MNCA	MNCA	MNCA	MNCA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	201	304	405	102
Entry	1	1	1	5
Covance LIMS Number	00400073	00400040	00400045	00400110
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.69	1.68	1.78	1.63
16:1 Palmitoleic	0.101	0.0960	0.101	0.0948
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.776	0.736	0.811	0.678
18:1 Oleic	26.5	26.8	27.7	24.2
18:2 Linoleic	7.24	7.56	7.60	7.57
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	3.30	3.50	3.53	3.51
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.244	0.229	0.240	0.224
20:1 Eicosenoic	0.440	0.432	0.454	0.457
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.117	0.109	0.110	0.114
22:1 Erucic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	< 0.0400	0.0778	0.0647	0.0543
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	< 0.0400	0.0500	0.0464	0.0447

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248616	11248632	11248642	11248645
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	DSV Ability	DSV Ability	DSV Ability	Q2
Site	MNCA	MNCA	MNCA	MNCA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	204	305	409	106
Entry	5	5	5	2
Covance LIMS Number	00400029	00400059	00400095	00400083
Proximate (%)				
Moisture	7.38	6.37	6.54	6.83
Protein	23.0	19.9	19.9	22.4
Total Fat	40.9	44.0	43.0	41.5
Ash	3.63	3.79	4.13	3.89
Carbohydrates	25.1	25.9	26.4	25.4
Acid Detergent Fiber (%)	16.4	18.8	17.8	16.3
Neutral Detergent Fiber (%)	19.0	21.3	20.5	19.6
Total Dietary Fiber (%)	22.0	20.5	17.2	17.2
Vitamin E (mg/100g)	11.2	13.0	13.3	13.7
Phytic Acid (%)	2.34	2.16	2.47	1.98
Sinapic acid (ppm)	8190	8080	8030	7980
Minerals (ppm)				
Calcium	3820	4200	3900	3960
Copper	3.28	3.43	3.38	3.18
Iron	61.8	42.2	39.5	47.3
Magnesium	3460	3550	4030	3790
Manganese	39.0	32.2	28.3	30.9
Phosphorus	6800	7190	7990	6710
Potassium	5380	5830	6430	6580
Sodium	132	< 100	< 100	< 100
Zinc	36.8	31.6	30.6	35.9
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	3.59	3.72	4.18	6.27
Total Indolyl	5.24	4.00	3.36	4.98
Total Glucosinolates	8.97	7.82	7.71	11.6

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248616	11248632	11248642	11248645
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	DSV Ability	DSV Ability	DSV Ability	Q2
Site	MNCA	MNCA	MNCA	MNCA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	204	305	409	106
Entry	5	5	5	2
Covance LIMS Number	00400029	00400059	00400095	00400083
Amino Acids (mg/g)				
Aspartic Acid	17.8	15.4	14.8	16.5
Threonine	10.2	9.08	8.94	9.58
Serine	10.6	9.23	9.40	10.3
Glutamic Acid	42.3	35.2	35.1	40.1
Proline	13.1	11.8	11.7	13.5
Glycine	12.2	10.7	10.5	11.4
Alanine	10.2	9.14	8.96	9.89
Cystine	5.96	4.78	5.08	5.30
Valine	11.9	10.7	10.2	11.6
Methionine	4.55	3.89	3.78	4.38
Isoleucine	9.32	8.33	7.89	8.92
Leucine	16.7	14.5	14.2	15.9
Tyrosine	6.84	6.22	6.10	6.53
Phenylalanine	10.0	8.81	8.66	9.52
Lysine	13.6	12.2	12.2	13.8
Histidine	6.40	5.58	5.56	6.26
Arginine	15.4	13.0	12.6	14.0
Tryptophan	2.43	1.87	2.04	2.23

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248616	11248632	11248642	11248645
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	DSV Ability	DSV Ability	DSV Ability	Q2
Site	MNCA	MNCA	MNCA	MNCA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	204	305	409	106
Entry	5	5	5	2
Covance LIMS Number	00400029	00400059	00400095	00400083
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.58	1.73	1.68	1.62
16:1 Palmitoleic	0.0846	0.0936	0.0940	0.0898
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.624	0.732	0.720	0.716
18:1 Oleic	25.1	26.1	25.3	24.5
18:2 Linoleic	7.82	7.99	7.96	7.72
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	3.81	3.87	3.86	3.58
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.213	0.231	0.222	0.240
20:1 Eicosenoic	0.464	0.461	0.441	0.539
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.112	0.113	0.109	0.127
22:1 Erucic	< 0.0400	< 0.0400	< 0.0400	0.0880
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0540	0.0615	0.0503	0.0560
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	0.0566	0.0515	0.0481	0.0549

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248639	11248622	11248610	11248605
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Q2	Q2	Q2	SValof Senator
Site	MNCA	MNCA	MNCA	MNCA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	210	302	401	104
Entry	2	2	2	4
Covance LIMS Number	00400004	00400093	00400135	00400006
Proximate (%)				
Moisture	7.66	6.46	6.98	6.73
Protein	22.6	22.4	22.9	25.1
Total Fat	40.4	41.4	40.7	42.4
Ash	3.88	3.81	3.75	3.86
Carbohydrates	25.5	25.9	25.7	21.9
Acid Detergent Fiber (%)	15.6	16.2	14.1	12.4
Neutral Detergent Fiber (%)	17.9	20.7	16.2	12.1
Total Dietary Fiber (%)	19.6	20.2	18.0	13.2
Vitamin E (mg/100g)	13.6	12.3	13.8	10.9
Phytic Acid (%)	2.06	1.78	1.79	2.45
Sinapic acid (ppm)	7690	7710	7900	8100
Minerals (ppm)				
Calcium	3380	3900	3360	3520
Copper	3.06	3.05	3.10	3.12
Iron	47.1	42.5	44.6	45.4
Magnesium	3960	3610	3780	3770
Manganese	33.1	29.9	32.5	44.7
Phosphorus	6850	6470	6390	7590
Potassium	6530	6570	6260	5630
Sodium	< 100	< 100	< 100	< 100
Zinc	38.3	37.2	35.2	38.6
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	6.00	5.62	23.4	4.42
Total Indolyl	3.79	4.98	2.00	2.70
Total Glucosinolates	10.2	11.0	25.7	7.25

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248639	11248622	11248610	11248605
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Q2	Q2	Q2	SValof Senator
Site	MNCA	MNCA	MNCA	MNCA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	210	302	401	104
Entry	2	2	2	4
Covance LIMS Number	00400004	00400093	00400135	00400006
Amino Acids (mg/g)				
Aspartic Acid	16.7	16.8	16.9	19.5
Threonine	9.82	9.98	9.91	10.7
Serine	9.91	10.5	10.5	11.0
Glutamic Acid	41.6	41.2	41.5	46.6
Proline	14.2	13.4	14.1	15.0
Glycine	11.7	11.6	11.7	13.2
Alanine	10.1	10.1	10.2	11.1
Cystine	5.84	5.82	5.94	6.05
Valine	12.0	11.5	11.9	13.3
Methionine	4.54	4.28	4.69	4.71
Isoleucine	9.23	8.90	9.15	10.6
Leucine	16.2	16.2	16.4	18.4
Tyrosine	6.65	6.70	6.64	7.24
Phenylalanine	9.71	9.75	9.76	10.8
Lysine	14.2	14.1	14.2	14.6
Histidine	6.51	6.42	6.47	7.09
Arginine	14.6	14.3	14.6	17.2
Tryptophan	2.25	2.08	2.49	2.58

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248639	11248622	11248610	11248605
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Q2	Q2	Q2	SValof Senator
Site	MNCA	MNCA	MNCA	MNCA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	210	302	401	104
Entry	2	2	2	4
Covance LIMS Number	00400004	00400093	00400135	00400006
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.57	1.62	1.58	1.53
16:1 Palmitoleic	0.0864	0.0907	0.0860	0.0864
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.686	0.705	0.685	0.790
18:1 Oleic	24.4	24.3	23.7	26.0
18:2 Linoleic	7.58	7.71	7.53	7.79
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	3.46	3.56	3.46	3.55
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.237	0.239	0.235	0.258
20:1 Eicosenoic	0.491	0.564	0.545	0.513
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.123	0.127	0.127	0.125
22:1 Erucic	0.0532	0.110	0.0911	< 0.0400
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0642	0.0608	< 0.0400	0.0721
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	0.0503	0.0602	< 0.0400	0.0511

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248637	11248606	11248618	11248647
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	SValof Senator	SValof Senator	SValof Senator	SValof Sponsor
Site	MNCA	MNCA	MNCA	MNCA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	203	303	411	107
Entry	4	4	4	3
Covance LIMS Number	00400107	00400112	00400037	00400060
Proximate (%)				
Moisture	6.77	7.14	7.59	6.35
Protein	24.9	23.9	24.5	22.7
Total Fat	40.6	40.1	38.7	40.7
Ash	4.08	4.08	3.73	4.05
Carbohydrates	23.7	24.8	25.5	26.2
Acid Detergent Fiber (%)	14.6	14.7	17.3	17.2
Neutral Detergent Fiber (%)	18.3	17.1	17.7	19.1
Total Dietary Fiber (%)	18.6	15.5	17.7	22.2
Vitamin E (mg/100g)	10.1	10.5	9.85	9.20
Phytic Acid (%)	2.11	2.19	2.12	2.42
Sinapic acid (ppm)	8180	8150	7600	8660
Minerals (ppm)				
Calcium	4140	4600	3900	4020
Copper	3.25	3.64	3.91	3.67
Iron	44.0	42.8	51.1	56.3
Magnesium	3560	3410	3830	3520
Manganese	40.6	36.6	50.0	40.1
Phosphorus	7210	7200	7180	8110
Potassium	5780	5590	5700	6490
Sodium	< 100	< 100	< 100	< 100
Zinc	36.6	35.4	44.0	36.7
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	3.75	3.80	5.40	24.1
Total Indolyl	3.64	2.97	4.92	3.16
Total Glucosinolates	7.54	6.93	10.6	27.4

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248637	11248606	11248618	11248647
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	SValof Senator	SValof Senator	SValof Senator	SValof Sponsor
Site	MNCA	MNCA	MNCA	MNCA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	203	303	411	107
Entry	4	4	4	3
Covance LIMS Number	00400107	00400112	00400037	00400060
Amino Acids (mg/g)				
Aspartic Acid	19.2	18.5	17.9	16.7
Threonine	10.5	10.3	10.3	9.70
Serine	11.5	10.8	10.9	10.0
Glutamic Acid	45.2	43.1	45.9	41.3
Proline	14.5	14.1	15.1	14.2
Glycine	13.0	12.5	12.7	11.8
Alanine	10.9	10.6	10.7	9.94
Cystine	6.01	5.51	6.12	5.39
Valine	12.9	12.7	12.8	11.8
Methionine	4.96	4.52	4.67	4.55
Isoleucine	10.1	9.95	10.1	9.24
Leucine	17.9	17.2	17.7	16.0
Tyrosine	7.39	7.09	7.21	6.59
Phenylalanine	10.8	10.4	10.5	9.66
Lysine	14.5	14.2	14.8	13.8
Histidine	6.92	6.65	6.95	6.32
Arginine	16.2	15.5	16.0	14.5
Tryptophan	2.85	2.74	2.50	1.78

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248637	11248606	11248618	11248647
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	SValof Senator	SValof Senator	SValof Senator	SValof Sponsor
Site	MNCA	MNCA	MNCA	MNCA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	203	303	411	107
Entry	4	4	4	3
Covance LIMS Number	00400107	00400112	00400037	00400060
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.46	1.47	1.34	1.77
16:1 Palmitoleic	0.0875	0.0897	0.0821	0.0986
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.764	0.756	0.700	0.759
18:1 Oleic	24.1	23.7	23.4	23.1
18:2 Linoleic	7.32	7.40	6.92	7.74
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	3.26	3.31	3.19	3.84
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.247	0.242	0.229	0.254
20:1 Eicosenoic	0.488	0.474	0.461	0.510
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.121	0.116	0.112	0.129
22:1 Erucic	< 0.0400	< 0.0400	< 0.0400	0.0503
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0682	0.0663	0.0661	0.0700
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	0.0415	< 0.0400	0.0427	0.0449

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248635	11248625	11248613	11248666
MON Number	Conventional	Conventional	Conventional	MON 88302
Material Name	SValof Sponsor	SValof Sponsor	SValof Sponsor	MON 88302
Site	MNCA	MNCA	MNCA	NDVA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 2
Treatment	NS	NS	NS	S
Plot	209	310	408	209
Entry	3	3	3	8
Covance LIMS Number	00400085	00400136	00400070	00400123
Proximate (%)				
Moisture	6.93	6.53	6.81	5.72
Protein	23.1	23.2	21.6	22.0
Total Fat	40.3	40.0	40.9	44.5
Ash	4.12	3.85	4.01	3.12
Carbohydrates	25.6	26.4	26.7	24.7
Acid Detergent Fiber (%)	15.9	15.0	17.6	13.7
Neutral Detergent Fiber (%)	18.9	14.8	20.0	15.0
Total Dietary Fiber (%)	20.4	20.6	17.6	16.1
Vitamin E (mg/100g)	8.58	9.34	9.48	15.6
Phytic Acid (%)	2.36	2.19	2.43	1.33
Sinapic acid (ppm)	8600	9070	8660	9470
Minerals (ppm)				
Calcium	3970	3650	3970	3520
Copper	3.72	3.67	3.65	3.51
Iron	57.1	58.1	55.5	44.1
Magnesium	3600	3490	3650	3200
Manganese	42.4	46.3	40.0	48.6
Phosphorus	7840	7350	8040	5260
Potassium	6120	5620	6300	4610
Sodium	< 100	< 100	< 100	< 100
Zinc	39.0	40.3	36.2	29.3
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	2.61	4.56	26.4	3.66
Total Indolyl	3.67	4.73	3.20	4.22
Total Glucosinolates	6.37	9.63	29.8	8.08

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248635	11248625	11248613	11248666
MON Number	Conventional	Conventional	Conventional	MON 88302
Material Name	SValof Sponsor	SValof Sponsor	SValof Sponsor	MON 88302
Site	MNCA	MNCA	MNCA	NDVA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 2
Treatment	NS	NS	NS	S
Plot	209	310	408	209
Entry	3	3	3	8
Covance LIMS Number	00400085	00400136	00400070	00400123
Amino Acids (mg/g)				
Aspartic Acid	16.7	16.1	15.1	15.6
Threonine	9.92	9.70	8.82	9.38
Serine	10.3	10.3	9.42	9.90
Glutamic Acid	42.9	42.6	38.9	40.1
Proline	14.3	14.7	12.3	13.8
Glycine	12.0	11.8	11.1	10.9
Alanine	10.1	9.92	9.26	9.54
Cystine	6.33	6.48	5.47	6.00
Valine	11.9	11.8	11.2	11.4
Methionine	4.47	4.80	4.26	4.58
Isoleucine	9.33	9.09	8.70	8.86
Leucine	16.3	16.0	15.1	15.5
Tyrosine	6.78	6.61	6.33	6.32
Phenylalanine	9.93	9.64	9.27	9.17
Lysine	14.2	14.2	13.1	13.8
Histidine	6.49	6.46	5.97	6.28
Arginine	14.8	14.6	13.5	13.9
Tryptophan	2.04	2.52	1.63	2.36

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248635	11248625	11248613	11248666
MON Number	Conventional	Conventional	Conventional	MON 88302
Material Name	SValof Sponsor	SValof Sponsor	SValof Sponsor	MON 88302
Site	MNCA	MNCA	MNCA	NDVA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 2
Treatment	NS	NS	NS	S
Plot	209	310	408	209
Entry	3	3	3	8
Covance LIMS Number	00400085	00400136	00400070	00400123
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.75	1.72	1.80	1.67
16:1 Palmitoleic	0.0985	0.0950	0.0982	0.0826
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.728	0.738	0.770	0.763
18:1 Oleic	23.1	22.9	23.4	27.1
18:2 Linoleic	7.62	7.35	7.55	7.39
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	3.82	3.70	3.76	3.62
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.250	0.248	0.253	0.236
20:1 Eicosenoic	0.510	0.489	0.508	0.471
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.132	0.127	0.128	0.111
22:1 Erucic	0.0539	< 0.0400	0.0764	< 0.0400
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0569	< 0.0400	0.0781	0.0663
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	0.0522	< 0.0400	< 0.0400	0.0541

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248650	11248652	11248663	11248676
MON Number	MON 88302	MON 88302	MON 88302	MON 88302
Material Name	MON 88302	MON 88302	MON 88302	MON 88302
Site	NDVA	NDVA	NDVA	NDVA
Replicate Number	Rep 4	Rep 1	Rep 2	Rep 3
Treatment	S	NS	NS	NS
Plot	407	109	211	308
Entry	8	9	9	9
Covance LIMS Number	00400001	00400078	00400007	00400132
Proximate (%)				
Moisture	6.08	5.51	6.06	5.94
Protein	24.4	22.9	23.9	23.5
Total Fat	45.9	43.4	42.4	42.8
Ash	3.11	2.84	2.75	3.24
Carbohydrates	20.5	25.4	24.9	24.5
Acid Detergent Fiber (%)	14.9	14.1	13.3	12.9
Neutral Detergent Fiber (%)	17.6	16.9	14.9	15.2
Total Dietary Fiber (%)	19.8	16.0	18.7	17.7
Vitamin E (mg/100g)	14.3	14.4	15.1	17.6
Phytic Acid (%)	1.47	1.32	1.06	1.49
Sinapic acid (ppm)	9730	9020	9180	10100
Minerals (ppm)				
Calcium	2860	2860	2420	3380
Copper	3.65	3.69	3.43	3.56
Iron	52.9	60.2	50.3	57.0
Magnesium	3510	3380	3600	3360
Manganese	44.0	50.8	49.5	49.5
Phosphorus	5560	4850	4200	5670
Potassium	4500	4690	4360	4620
Sodium	< 100	< 100	< 100	< 100
Zinc	28.0	33.3	33.6	28.5
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	3.51	4.03	4.02	3.24
Total Indolyl	3.75	4.92	3.99	4.27
Total Glucosinolates	7.48	9.12	8.18	7.73

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248650	11248652	11248663	11248676
MON Number	MON 88302	MON 88302	MON 88302	MON 88302
Material Name	MON 88302	MON 88302	MON 88302	MON 88302
Site	NDVA	NDVA	NDVA	NDVA
Replicate Number	Rep 4	Rep 1	Rep 2	Rep 3
Treatment	S	NS	NS	NS
Plot	407	109	211	308
Entry	8	9	9	9
Covance LIMS Number	00400001	00400078	00400007	00400132
Amino Acids (mg/g)				
Aspartic Acid	18.1	16.7	17.5	17.1
Threonine	10.4	9.71	10.0	10.1
Serine	10.7	10.6	10.4	10.8
Glutamic Acid	47.5	42.7	43.9	43.8
Proline	16.1	14.5	15.1	14.5
Glycine	12.4	11.5	11.7	11.7
Alanine	10.8	10.1	10.3	10.2
Cystine	6.85	5.93	6.22	6.62
Valine	12.9	12.0	12.5	12.2
Methionine	5.10	4.55	4.57	4.97
Isoleucine	10.1	9.31	9.75	9.46
Leucine	17.8	16.4	16.8	16.7
Tyrosine	7.04	6.60	6.86	6.73
Phenylalanine	10.4	9.67	9.97	9.87
Lysine	15.3	14.4	14.8	14.7
Histidine	7.21	6.60	6.74	6.73
Arginine	16.2	14.8	15.8	15.0
Tryptophan	2.47	2.16	2.48	2.58

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248650	11248652	11248663	11248676
MON Number	MON 88302	MON 88302	MON 88302	MON 88302
Material Name	MON 88302	MON 88302	MON 88302	MON 88302
Site	NDVA	NDVA	NDVA	NDVA
Replicate Number	Rep 4	Rep 1	Rep 2	Rep 3
Treatment	S	NS	NS	NS
Plot	407	109	211	308
Entry	8	9	9	9
Covance LIMS Number	00400001	00400078	00400007	00400132
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.74	1.66	1.60	1.65
16:1 Palmitoleic	0.0890	0.0909	0.0849	0.0833
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.752	0.756	0.723	0.723
18:1 Oleic	28.6	26.5	26.7	25.8
18:2 Linoleic	7.94	7.17	7.27	7.31
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	3.94	3.62	3.65	3.58
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.247	0.237	0.233	0.225
20:1 Eicosenoic	0.515	0.470	0.477	0.465
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.119	0.114	0.113	0.114
22:1 Erucic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0781	< 0.0400	0.0742	< 0.0400
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	0.0496	< 0.0400	0.0432	< 0.0400

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248689	11248674	11248669	11248692
MON Number	MON 88302	Conventional	Conventional	Conventional
Material Name	MON 88302	Ebony	Ebony	Ebony
Site	NDVA	NDVA	NDVA	NDVA
Replicate Number	Rep 4	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS	NS
Plot	411	207	306	408
Entry	9	1	1	1
Covance LIMS Number	00400125	00400077	00400099	00400053
Proximate (%)				
Moisture	6.11	5.63	5.24	6.18
Protein	22.3	23.9	25.6	24.4
Total Fat	42.9	43.2	42.6	42.0
Ash	4.02	3.02	3.17	3.00
Carbohydrates	24.7	24.3	23.4	24.4
Acid Detergent Fiber (%)	13.4	14.3	14.1	14.4
Neutral Detergent Fiber (%)	16.2	17.6	16.5	16.1
Total Dietary Fiber (%)	17.8	16.4	14.1	18.4
Vitamin E (mg/100g)	16.3	7.98	9.14	9.57
Phytic Acid (%)	1.14	1.38	1.59	1.48
Sinapic acid (ppm)	9750	7800	8310	7750
Minerals (ppm)				
Calcium	4370	2880	2640	3210
Copper	3.53	3.36	3.16	3.44
Iron	42.8	63.4	57.6	58.5
Magnesium	3310	3320	3460	3100
Manganese	24.8	48.1	47.5	44.2
Phosphorus	7530	5240	5530	5420
Potassium	5900	5070	5140	4990
Sodium	< 100	< 100	< 100	< 100
Zinc	30.7	32.3	32.0	27.1
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	2.96	4.93	4.60	2.30
Total Indolyl	3.42	3.99	3.55	1.72
Total Glucosinolates	6.65	9.07	8.28	4.11

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248689	11248674	11248669	11248692
MON Number	MON 88302	Conventional	Conventional	Conventional
Material Name	MON 88302	Ebony	Ebony	Ebony
Site	NDVA	NDVA	NDVA	NDVA
Replicate Number	Rep 4	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS	NS
Plot	411	207	306	408
Entry	9	1	1	1
Covance LIMS Number	00400125	00400077	00400099	00400053
Amino Acids (mg/g)				
Aspartic Acid	16.2	16.9	17.9	17.0
Threonine	9.10	10.0	10.6	10.2
Serine	9.53	11.0	11.2	10.6
Glutamic Acid	37.0	46.6	49.8	46.2
Proline	13.6	15.3	16.4	15.7
Glycine	10.5	12.3	13.1	12.3
Alanine	9.25	10.5	11.3	10.5
Cystine	5.52	6.27	7.49	6.50
Valine	11.1	12.5	13.4	12.7
Methionine	4.44	4.71	5.26	5.02
Isoleucine	8.60	9.80	10.6	10.0
Leucine	15.0	17.3	18.5	17.3
Tyrosine	6.30	6.89	7.29	6.80
Phenylalanine	9.07	10.3	10.9	10.1
Lysine	12.6	14.9	15.6	14.8
Histidine	5.79	6.90	7.40	6.90
Arginine	13.4	15.9	16.8	15.9
Tryptophan	2.55	2.02	2.97	2.41

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248689	11248674	11248669	11248692
MON Number	MON 88302	Conventional	Conventional	Conventional
Material Name	MON 88302	Ebony	Ebony	Ebony
Site	NDVA	NDVA	NDVA	NDVA
Replicate Number	Rep 4	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS	NS
Plot	411	207	306	408
Entry	9	1	1	1
Covance LIMS Number	00400125	00400077	00400099	00400053
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.69	1.61	1.58	1.56
16:1 Palmitoleic	0.0920	0.0933	0.0882	0.0886
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.726	0.864	0.842	0.833
18:1 Oleic	25.6	28.0	27.4	26.8
18:2 Linoleic	7.63	6.43	6.32	6.20
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	3.55	3.01	2.88	2.91
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.227	0.264	0.258	0.254
20:1 Eicosenoic	0.458	0.481	0.464	0.452
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.108	0.122	0.120	0.117
22:1 Erucic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0670	< 0.0400	0.0795	0.0875
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	0.0596	< 0.0400	0.0414	0.0467

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248662	11248659	11248682	11248672
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Croplan 601	Croplan 601	Croplan 601	Croplan 601
Site	NDVA	NDVA	NDVA	NDVA
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS	NS
Plot	103	201	310	410
Entry	5	5	5	5
Covance LIMS Number	00400087	00400120	00400020	00400030
Proximate (%)				
Moisture	5.61	5.29	5.57	6.43
Protein	23.7	26.1	24.6	26.5
Total Fat	44.1	40.8	42.2	39.1
Ash	2.95	2.97	2.87	3.91
Carbohydrates	23.6	24.8	24.8	24.1
Acid Detergent Fiber (%)	14.0	12.8	13.8	13.1
Neutral Detergent Fiber (%)	15.7	15.1	15.8	15.0
Total Dietary Fiber (%)	16.6	15.4	20.3	18.5
Vitamin E (mg/100g)	10.3	8.48	10.1	9.63
Phytic Acid (%)	1.42	1.49	1.98	2.16
Sinapic acid (ppm)	9010	9370	8690	8220
Minerals (ppm)				
Calcium	2710	2940	2410	3620
Copper	3.10	3.58	3.52	3.28
Iron	59.9	60.0	68.6	68.9
Magnesium	3210	3340	3500	3630
Manganese	50.4	43.2	50.7	32.0
Phosphorus	4840	5440	4960	7530
Potassium	5070	5290	4940	6310
Sodium	< 100	< 100	< 100	< 100
Zinc	36.2	34.9	37.9	39.5
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	5.73	5.15	4.54	4.56
Total Indolyl	4.42	3.84	3.79	5.77
Total Glucosinolates	10.3	9.16	8.49	10.6

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248662	11248659	11248682	11248672
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Croplan 601	Croplan 601	Croplan 601	Croplan 601
Site	NDVA	NDVA	NDVA	NDVA
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS	NS
Plot	103	201	310	410
Entry	5	5	5	5
Covance LIMS Number	00400087	00400120	00400020	00400030
Amino Acids (mg/g)				
Aspartic Acid	16.3	17.9	17.5	20.9
Threonine	9.96	10.5	10.4	11.4
Serine	10.6	11.3	11.0	12.2
Glutamic Acid	45.6	50.5	47.7	50.8
Proline	15.1	16.9	15.7	16.3
Glycine	12.1	13.2	12.7	14.0
Alanine	10.4	11.1	10.7	11.9
Cystine	6.80	7.47	6.70	6.65
Valine	12.1	13.4	12.6	13.7
Methionine	4.90	5.37	4.99	5.11
Isoleucine	9.47	10.6	9.90	10.8
Leucine	16.9	18.5	17.6	19.4
Tyrosine	6.59	7.19	6.98	7.83
Phenylalanine	9.86	10.9	10.4	11.7
Lysine	14.7	15.9	15.1	15.7
Histidine	6.83	7.51	7.05	7.49
Arginine	15.3	17.0	16.4	18.3
Tryptophan	2.35	3.02	2.60	2.87

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248662	11248659	11248682	11248672
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Croplan 601	Croplan 601	Croplan 601	Croplan 601
Site	NDVA	NDVA	NDVA	NDVA
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS	NS
Plot	103	201	310	410
Entry	5	5	5	5
Covance LIMS Number	00400087	00400120	00400020	00400030
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.53	1.41	1.45	1.44
16:1 Palmitoleic	0.0937	0.0899	0.0889	0.0883
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.875	0.833	0.865	0.748
18:1 Oleic	27.7	26.0	27.4	25.1
18:2 Linoleic	6.80	6.17	6.43	6.54
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	3.61	3.37	3.58	3.45
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.265	0.258	0.269	0.250
20:1 Eicosenoic	0.509	0.506	0.501	0.490
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.124	0.122	0.124	0.124
22:1 Erucic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0742	0.0710	0.0794	0.0712
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	< 0.0400	0.0439	0.0501	0.0532

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248678	11248664	11248688	11248667
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Hyola 401	Hyola 401	Hyola 401	Hyola 401
Site	NDVA	NDVA	NDVA	NDVA
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS	NS
Plot	110	205	309	409
Entry	3	3	3	3
Covance LIMS Number	00400103	00400054	00400150	00400126
Proximate (%)				
Moisture	5.67	5.80	6.23	6.22
Protein	24.9	23.8	23.1	23.4
Total Fat	42.0	41.5	41.7	40.6
Ash	2.81	2.89	2.97	3.20
Carbohydrates	24.6	26.0	26.0	26.6
Acid Detergent Fiber (%)	15.9	18.4	16.3	15.4
Neutral Detergent Fiber (%)	20.1	16.2	18.3	20.1
Total Dietary Fiber (%)	13.8	20.5	20.1	23.1
Vitamin E (mg/100g)	9.56	10.9	9.20	11.3
Phytic Acid (%)	1.16	1.29	1.31	1.27
Sinapic acid (ppm)	7890	7570	7920	7770
Minerals (ppm)				
Calcium	3690	3420	2850	2820
Copper	3.17	2.74	2.93	3.04
Iron	59.7	50.8	64.3	54.0
Magnesium	2850	3100	3360	3540
Manganese	39.5	34.2	36.9	35.5
Phosphorus	4360	4810	4830	5060
Potassium	4710	5200	4940	5010
Sodium	< 100	< 100	< 100	< 100
Zinc	30.9	27.5	23.6	20.8
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	5.83	6.37	5.22	5.11
Total Indolyl	4.63	5.47	4.13	4.42
Total Glucosinolates	10.8	12.0	9.64	9.88

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248678	11248664	11248688	11248667
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Hyola 401	Hyola 401	Hyola 401	Hyola 401
Site	NDVA	NDVA	NDVA	NDVA
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS	NS
Plot	110	205	309	409
Entry	3	3	3	3
Covance LIMS Number	00400103	00400054	00400150	00400126
Amino Acids (mg/g)				
Aspartic Acid	17.3	16.8	16.4	16.7
Threonine	10.1	9.84	9.87	9.74
Serine	10.7	10.4	10.2	10.4
Glutamic Acid	47.6	45.3	43.5	43.7
Proline	15.2	15.0	14.4	15.0
Glycine	12.6	12.2	11.8	11.9
Alanine	10.7	10.4	9.97	10.1
Cystine	7.16	6.16	6.37	6.23
Valine	13.0	12.4	11.9	12.2
Methionine	5.27	4.95	4.83	4.74
Isoleucine	10.1	9.72	9.32	9.50
Leucine	17.6	16.9	16.4	16.6
Tyrosine	6.82	6.61	6.55	6.60
Phenylalanine	10.4	10.1	9.74	9.91
Lysine	15.3	14.8	14.4	14.5
Histidine	7.15	6.87	6.64	6.67
Arginine	15.9	15.5	14.8	14.9
Tryptophan	2.90	2.18	2.57	2.63

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248678	11248664	11248688	11248667
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Hyola 401	Hyola 401	Hyola 401	Hyola 401
Site	NDVA	NDVA	NDVA	NDVA
Replicate Number	Rep 1	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS	NS
Plot	110	205	309	409
Entry	3	3	3	3
Covance LIMS Number	00400103	00400054	00400150	00400126
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.49	1.54	1.58	1.56
16:1 Palmitoleic	0.0755	0.0755	0.0801	0.0795
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	1.01	1.01	1.03	1.02
18:1 Oleic	26.5	26.6	27.2	25.7
18:2 Linoleic	5.46	5.54	5.95	5.89
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	3.19	3.10	3.46	3.35
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.271	0.274	0.278	0.272
20:1 Eicosenoic	0.473	0.466	0.464	0.447
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.110	0.111	0.114	0.110
22:1 Erucic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0722	0.0798	0.0745	0.0803
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	< 0.0400	< 0.0400	0.0471	0.0572

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248677	11248661	11248653	11248671
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Q2	Q2	Q2	SP Armada
Site	NDVA	NDVA	NDVA	NDVA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	204	305	406	102
Entry	2	2	2	4
Covance LIMS Number	00400033	00400137	00400105	00400090
Proximate (%)				
Moisture	7.12	7.16	7.46	6.40
Protein	22.8	23.3	24.4	23.5
Total Fat	42.2	42.4	40.9	42.2
Ash	3.21	3.19	2.98	2.89
Carbohydrates	24.7	24.0	24.3	25.0
Acid Detergent Fiber (%)	12.8	13.2	14.6	12.9
Neutral Detergent Fiber (%)	17.1	15.1	18.2	16.2
Total Dietary Fiber (%)	14.6	18.9	12.4	18.0
Vitamin E (mg/100g)	11.1	12.3	10.8	10.1
Phytic Acid (%)	1.45	1.20	1.27	1.03
Sinapic acid (ppm)	8010	8060	8010	7970
Minerals (ppm)				
Calcium	2390	2490	2580	2670
Copper	2.54	2.75	2.75	2.56
Iron	53.6	66.9	58.4	51.2
Magnesium	3840	3330	3620	3090
Manganese	34.4	35.6	34.2	36.9
Phosphorus	5490	4780	4790	4140
Potassium	6270	5460	5680	5920
Sodium	< 100	< 100	< 100	117
Zinc	29.6	28.1	31.1	36.6
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	5.77	5.40	5.53	5.12
Total Indolyl	6.67	4.90	4.92	4.85
Total Glucosinolates	12.7	10.5	10.9	10.5

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248677	11248661	11248653	11248671
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Q2	Q2	Q2	SP Armada
Site	NDVA	NDVA	NDVA	NDVA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	204	305	406	102
Entry	2	2	2	4
Covance LIMS Number	00400033	00400137	00400105	00400090
Amino Acids (mg/g)				
Aspartic Acid	16.3	16.2	16.8	16.8
Threonine	9.99	9.88	10.2	10.2
Serine	10.4	10.4	11.0	11.1
Glutamic Acid	44.0	43.9	45.2	44.5
Proline	14.9	14.7	15.1	14.7
Glycine	12.0	11.9	12.3	12.1
Alanine	10.4	10.2	10.6	10.6
Cystine	5.81	6.54	6.60	6.61
Valine	12.2	12.0	12.2	11.8
Methionine	4.58	4.86	5.21	4.95
Isoleucine	9.33	9.35	9.42	9.16
Leucine	16.8	16.6	17.2	17.0
Tyrosine	6.67	6.54	6.67	6.71
Phenylalanine	9.81	9.71	10.0	9.90
Lysine	14.9	14.7	15.2	15.0
Histidine	6.79	6.78	6.96	6.85
Arginine	14.9	14.8	15.2	14.9
Tryptophan	2.27	2.45	2.74	2.34

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248677	11248661	11248653	11248671
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Q2	Q2	Q2	SP Armada
Site	NDVA	NDVA	NDVA	NDVA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	204	305	406	102
Entry	2	2	2	4
Covance LIMS Number	00400033	00400137	00400105	00400090
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.54	1.56	1.50	1.56
16:1 Palmitoleic	0.0897	0.0860	0.0885	0.0842
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.771	0.797	0.757	0.682
18:1 Oleic	25.8	26.3	25.3	25.6
18:2 Linoleic	6.66	6.65	6.38	7.26
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	3.29	3.38	3.23	3.79
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.254	0.259	0.250	0.238
20:1 Eicosenoic	0.580	0.551	0.531	0.507
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.126	0.132	0.125	0.135
22:1 Erucic	0.115	0.0575	0.0521	< 0.0400
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0587	< 0.0400	0.0650	0.0625
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	0.0471	< 0.0400	0.0435	0.0557

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248691	11254168	11254191	11254160
MON Number	Conventional	MON 88302	MON 88302	MON 88302
Material Name	SP Armada	MON 88302	MON 88302	MON 88302
Site	NDVA	SKSA	SKSA	SKSA
Replicate Number	Rep 3	Rep 1	Rep 3	Rep 4
Treatment	NS	S	S	S
Plot	307	104	310	409
Entry	4	8	8	8
Covance LIMS Number	00400063	00400056	00400039	00400017
Proximate (%)				
Moisture	8.48	3.90	4.35	4.82
Protein	21.9	22.7	22.7	23.4
Total Fat	42.5	47.3	46.5	45.6
Ash	3.14	3.54	3.65	4.23
Carbohydrates	24.0	22.6	22.8	22.0
Acid Detergent Fiber (%)	14.5	9.00	11.0	8.75
Neutral Detergent Fiber (%)	16.0	11.2	12.2	9.02
Total Dietary Fiber (%)	15.1	16.5	18.4	18.1
Vitamin E (mg/100g)	10.5	1.25	1.44	1.58
Phytic Acid (%)	1.38	1.15	1.53	1.82
Sinapic acid (ppm)	8620	1580	2710	1860
Minerals (ppm)				
Calcium	2790	3810	3830	3990
Copper	2.56	3.70	3.38	3.11
Iron	64.9	66.9	53.2	61.3
Magnesium	3410	2960	3520	3730
Manganese	38.5	45.4	37.7	36.7
Phosphorus	5220	5520	6560	7660
Potassium	6080	7960	7370	8610
Sodium	< 100	< 100	< 100	< 100
Zinc	30.5	37.8	39.4	43.3
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	4.42	1.52	2.08	1.13
Total Indolyl	4.04	0.921	1.25	0.469
Total Glucosinolates	9.03	2.50	3.36	1.65

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248691	11254168	11254191	11254160
MON Number	Conventional	MON 88302	MON 88302	MON 88302
Material Name	SP Armada	MON 88302	MON 88302	MON 88302
Site	NDVA	SKSA	SKSA	SKSA
Replicate Number	Rep 3	Rep 1	Rep 3	Rep 4
Treatment	NS	S	S	S
Plot	307	104	310	409
Entry	4	8	8	8
Covance LIMS Number	00400063	00400056	00400039	00400017
Amino Acids (mg/g)				
Aspartic Acid	15.5	13.5	13.8	14.3
Threonine	9.65	8.23	8.51	8.74
Serine	9.80	8.96	9.37	9.46
Glutamic Acid	40.3	35.2	38.0	37.0
Proline	13.3	12.9	13.6	13.3
Glycine	11.3	9.81	10.2	10.1
Alanine	9.79	9.82	10.1	10.2
Cystine	5.82	5.10	5.19	5.42
Valine	11.4	10.9	11.4	11.0
Methionine	4.52	4.35	4.17	4.46
Isoleucine	8.86	8.51	8.92	8.69
Leucine	15.7	14.9	15.8	15.6
Tyrosine	6.37	5.86	6.25	6.14
Phenylalanine	9.25	8.98	9.33	9.34
Lysine	14.0	12.2	13.1	13.0
Histidine	6.36	5.47	5.76	5.66
Arginine	13.9	12.2	12.8	13.1
Tryptophan	1.92	1.78	2.06	2.04

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11248691	11254168	11254191	11254160
MON Number	Conventional	MON 88302	MON 88302	MON 88302
Material Name	SP Armada	MON 88302	MON 88302	MON 88302
Site	NDVA	SKSA	SKSA	SKSA
Replicate Number	Rep 3	Rep 1	Rep 3	Rep 4
Treatment	NS	S	S	S
Plot	307	104	310	409
Entry	4	8	8	8
Covance LIMS Number	00400063	00400056	00400039	00400017
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.59	1.85	1.92	2.00
16:1 Palmitoleic	0.0815	0.106	0.112	0.111
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.710	0.697	0.738	0.673
18:1 Oleic	25.0	25.2	26.8	26.5
18:2 Linoleic	7.41	7.35	7.92	8.53
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	3.88	4.44	4.47	4.92
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.239	0.217	0.237	0.227
20:1 Eicosenoic	0.494	0.512	0.534	0.535
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.132	0.114	0.122	0.125
22:1 Erucic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0678	0.0938	0.0915	0.0879
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	0.0446	0.0659	0.0798	0.0863

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254166	11254156	11254180	11254173
MON Number	MON 88302	MON 88302	MON 88302	Conventional
Material Name	MON 88302	MON 88302	MON 88302	Ebony
Site	SKSA	SKSA	SKSA	SKSA
Replicate Number	Rep 1	Rep 2	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	106	211	407	107
Entry	9	9	9	1
Covance LIMS Number	00400031	00400043	00400100	00400034
Proximate (%)				
Moisture	4.45	4.73	3.85	4.65
Protein	21.9	21.3	22.3	21.1
Total Fat	46.4	47.3	46.5	47.9
Ash	3.51	3.68	4.45	3.53
Carbohydrates	23.7	23.0	22.9	22.8
Acid Detergent Fiber (%)	6.75	9.42	7.12	8.94
Neutral Detergent Fiber (%)	8.43	10.7	9.31	11.1
Total Dietary Fiber (%)	14.3	16.1	14.3	15.8
Vitamin E (mg/100g)	1.21	1.47	3.72	6.38
Phytic Acid (%)	1.06	1.51	2.00	1.73
Sinapic acid (ppm)	3170	4490	2780	6210
Minerals (ppm)				
Calcium	3970	4280	4530	4340
Copper	3.91	3.38	3.32	3.29
Iron	93.8	58.4	53.5	52.2
Magnesium	2870	3030	3530	3240
Manganese	42.2	39.2	31.6	33.0
Phosphorus	5370	6070	8020	6380
Potassium	7550	7230	8360	6600
Sodium	< 100	< 100	< 100	< 100
Zinc	33.0	34.2	37.3	30.7
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	3.66	3.68	1.89	4.64
Total Indolyl	1.78	1.89	1.02	3.29
Total Glucosinolates	5.52	5.68	2.99	7.99

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254166	11254156	11254180	11254173
MON Number	MON 88302	MON 88302	MON 88302	Conventional
Material Name	MON 88302	MON 88302	MON 88302	Ebony
Site	SKSA	SKSA	SKSA	SKSA
Replicate Number	Rep 1	Rep 2	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	106	211	407	107
Entry	9	9	9	1
Covance LIMS Number	00400031	00400043	00400100	00400034
Amino Acids (mg/g)				
Aspartic Acid	14.5	13.8	13.8	14.2
Threonine	8.90	8.62	8.33	8.67
Serine	9.70	9.56	8.99	9.30
Glutamic Acid	37.3	37.6	35.1	38.0
Proline	13.3	13.5	12.6	13.9
Glycine	10.1	9.95	9.79	10.1
Alanine	10.5	10.1	9.62	9.74
Cystine	5.56	5.32	5.62	5.03
Valine	11.1	10.9	10.9	11.0
Methionine	4.63	4.40	4.45	4.26
Isoleucine	8.69	8.55	8.47	8.64
Leucine	15.7	15.4	14.9	15.2
Tyrosine	6.15	6.17	5.97	6.17
Phenylalanine	9.34	9.07	8.99	8.91
Lysine	13.6	13.3	12.8	12.9
Histidine	5.74	5.74	5.54	5.70
Arginine	13.8	12.8	12.4	13.0
Tryptophan	1.83	2.03	2.30	2.10

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254166	11254156	11254180	11254173
MON Number	MON 88302	MON 88302	MON 88302	Conventional
Material Name	MON 88302	MON 88302	MON 88302	Ebony
Site	SKSA	SKSA	SKSA	SKSA
Replicate Number	Rep 1	Rep 2	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	106	211	407	107
Entry	9	9	9	1
Covance LIMS Number	00400031	00400043	00400100	00400034
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.96	1.85	1.99	1.80
16:1 Palmitoleic	0.114	0.104	0.116	0.112
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.755	0.759	0.756	0.914
18:1 Oleic	27.4	27.4	26.8	29.3
18:2 Linoleic	8.25	7.75	8.37	7.36
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	4.74	4.35	4.48	3.66
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.242	0.239	0.241	0.276
20:1 Eicosenoic	0.541	0.523	0.523	0.511
20:2 Eicosadienoic	< 0.0400	< 0.0400	0.0399	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.126	0.123	0.126	0.130
22:1 Erucic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0944	0.0771	0.0968	0.0747
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	0.0838	0.0683	0.0774	0.0567

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254183	11254154	11254195	11254193
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Ebony	Ebony	Ebony	Croplan 601
Site	SKSA	SKSA	SKSA	SKSA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	203	301	411	105
Entry	1	1	1	3
Covance LIMS Number	00400133	00400035	00400023	00400044
Proximate (%)				
Moisture	4.41	4.88	4.81	4.41
Protein	20.1	20.2	23.0	23.5
Total Fat	47.9	45.6	44.7	45.9
Ash	3.82	3.82	4.12	3.78
Carbohydrates	23.8	25.5	23.4	22.4
Acid Detergent Fiber (%)	10.3	9.82	8.51	9.62
Neutral Detergent Fiber (%)	13.3	12.6	11.0	11.7
Total Dietary Fiber (%)	17.1	15.9	16.8	17.6
Vitamin E (mg/100g)	8.81	8.01	3.17	2.50
Phytic Acid (%)	2.01	2.09	1.61	1.69
Sinapic acid (ppm)	8170	7570	9080	4920
Minerals (ppm)				
Calcium	3850	4460	3970	4180
Copper	2.91	2.82	3.31	2.92
Iron	47.9	53.3	74.0	73.0
Magnesium	3580	3250	3690	3550
Manganese	32.1	31.5	35.8	37.7
Phosphorus	7180	7400	7280	7010
Potassium	6380	6530	7650	7180
Sodium	< 100	< 100	< 100	< 100
Zinc	28.5	28.3	38.7	35.9
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	4.85	7.88	4.83	4.35
Total Indolyl	2.60	4.14	2.55	2.65
Total Glucosinolates	7.57	12.1	7.47	7.09

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254183	11254154	11254195	11254193
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Ebony	Ebony	Ebony	Croplan 601
Site	SKSA	SKSA	SKSA	SKSA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	203	301	411	105
Entry	1	1	1	3
Covance LIMS Number	00400133	00400035	00400023	00400044
Amino Acids (mg/g)				
Aspartic Acid	14.0	14.6	15.7	15.8
Threonine	8.45	8.76	9.43	9.27
Serine	9.03	9.33	10.1	10.5
Glutamic Acid	34.9	36.9	41.8	42.4
Proline	12.9	13.5	14.5	15.1
Glycine	9.70	10.3	10.9	11.1
Alanine	8.86	9.39	10.5	10.8
Cystine	5.39	4.66	5.90	5.72
Valine	10.3	10.9	11.7	12.0
Methionine	4.14	3.82	4.67	4.61
Isoleucine	8.01	8.48	9.16	9.37
Leucine	14.0	14.9	16.3	16.9
Tyrosine	5.80	6.14	6.46	6.78
Phenylalanine	8.36	8.86	9.61	9.94
Lysine	12.4	12.8	14.1	14.1
Histidine	5.46	5.70	6.21	6.27
Arginine	12.3	12.9	14.8	14.3
Tryptophan	2.11	2.01	2.25	2.34

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254183	11254154	11254195	11254193
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Ebony	Ebony	Ebony	Croplan 601
Site	SKSA	SKSA	SKSA	SKSA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	203	301	411	105
Entry	1	1	1	3
Covance LIMS Number	00400133	00400035	00400023	00400044
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.81	1.73	1.76	1.59
16:1 Palmitoleic	0.108	0.108	0.107	0.107
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.965	0.937	0.822	0.853
18:1 Oleic	29.9	27.7	27.8	25.8
18:2 Linoleic	7.44	7.69	7.55	6.77
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	3.55	3.55	3.86	4.06
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.282	0.265	0.255	0.260
20:1 Eicosenoic	0.494	0.469	0.503	0.517
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.132	0.120	0.128	0.128
22:1 Erucic	< 0.0400	0.0585	< 0.0400	< 0.0400
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	< 0.0400	0.0722	0.0932	0.0820
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	< 0.0400	0.0557	0.0701	0.0717

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254161	11254159	11254185	11254188
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Croplan 601	Croplan 601	Croplan 601	Hyola 401
Site	SKSA	SKSA	SKSA	SKSA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	205	302	403	109
Entry	3	3	3	5
Covance LIMS Number	00400011	00400122	00400134	00400080
Proximate (%)				
Moisture	4.87	4.66	4.22	4.09
Protein	22.0	20.6	21.0	24.4
Total Fat	45.7	46.4	45.9	43.3
Ash	3.94	3.82	3.79	3.86
Carbohydrates	23.5	24.5	25.1	24.4
Acid Detergent Fiber (%)	9.32	11.0	10.1	11.2
Neutral Detergent Fiber (%)	10.4	12.8	13.5	14.1
Total Dietary Fiber (%)	15.6	14.3	20.1	15.7
Vitamin E (mg/100g)	5.63	8.21	10.7	8.60
Phytic Acid (%)	2.07	1.95	1.74	1.66
Sinapic acid (ppm)	5780	8300	8170	5590
Minerals (ppm)				
Calcium	3500	3840	3810	4340
Copper	2.86	2.65	2.68	2.93
Iron	59.6	52.7	54.3	57.8
Magnesium	3890	3370	3350	3280
Manganese	33.3	32.5	31.9	30.1
Phosphorus	7300	6710	6370	6510
Potassium	7310	6330	6110	7320
Sodium	< 100	< 100	< 100	113
Zinc	35.2	27.3	27.3	30.3
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	5.86	5.83	6.33	6.80
Total Indolyl	2.15	3.29	2.96	3.12
Total Glucosinolates	8.12	9.29	9.62	10.2

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254161	11254159	11254185	11254188
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Croplan 601	Croplan 601	Croplan 601	Hyola 401
Site	SKSA	SKSA	SKSA	SKSA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	205	302	403	109
Entry	3	3	3	5
Covance LIMS Number	00400011	00400122	00400134	00400080
Amino Acids (mg/g)				
Aspartic Acid	14.6	14.4	14.5	17.4
Threonine	8.85	8.58	8.88	9.64
Serine	9.57	9.07	9.53	10.8
Glutamic Acid	39.7	36.6	38.4	45.9
Proline	14.6	13.5	13.7	16.1
Glycine	10.5	10.2	10.5	11.9
Alanine	9.84	9.07	9.62	11.0
Cystine	5.78	5.70	5.80	6.36
Valine	11.4	10.6	10.9	12.7
Methionine	4.55	4.40	4.43	4.82
Isoleucine	8.85	8.13	8.41	9.96
Leucine	15.6	14.3	14.9	17.5
Tyrosine	6.13	5.91	5.85	6.82
Phenylalanine	9.23	8.57	8.72	10.4
Lysine	13.7	12.9	13.4	14.9
Histidine	6.00	5.71	5.91	6.78
Arginine	13.6	12.7	13.1	15.5
Tryptophan	2.20	2.20	2.16	2.14

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254161	11254159	11254185	11254188
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Croplan 601	Croplan 601	Croplan 601	Hyola 401
Site	SKSA	SKSA	SKSA	SKSA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	205	302	403	109
Entry	3	3	3	5
Covance LIMS Number	00400011	00400122	00400134	00400080
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.70	1.70	1.68	1.67
16:1 Palmitoleic	0.111	0.109	0.105	0.0921
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.869	0.947	0.908	0.991
18:1 Oleic	27.9	28.5	27.9	26.1
18:2 Linoleic	7.65	7.59	7.53	6.70
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	4.39	3.96	3.89	4.07
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.267	0.280	0.273	0.270
20:1 Eicosenoic	0.536	0.504	0.506	0.504
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.132	0.132	0.129	0.120
22:1 Erucic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0859	0.0885	< 0.0400	< 0.0400
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	0.0663	0.0780	< 0.0400	< 0.0400

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254171	11254155	11254178	11254179
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Hyola 401	Hyola 401	Hyola 401	Q2
Site	SKSA	SKSA	SKSA	SKSA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	206	306	405	103
Entry	5	5	5	2
Covance LIMS Number	00400127	00400062	00400038	00400147
Proximate (%)				
Moisture	4.69	4.80	4.56	5.03
Protein	21.9	21.9	23.1	25.1
Total Fat	43.8	43.9	43.8	44.6
Ash	3.80	4.11	3.64	3.91
Carbohydrates	25.8	25.3	24.9	21.4
Acid Detergent Fiber (%)	12.0	14.2	12.6	9.26
Neutral Detergent Fiber (%)	14.7	16.3	16.1	11.5
Total Dietary Fiber (%)	19.5	19.4	18.6	17.5
Vitamin E (mg/100g)	11.0	10.8	9.66	5.72
Phytic Acid (%)	1.83	2.06	1.72	1.29
Sinapic acid (ppm)	7410	7660	6740	4550
Minerals (ppm)				
Calcium	4100	5080	3560	3430
Copper	2.93	2.65	2.73	3.22
Iron	48.0	47.5	47.8	74.0
Magnesium	3410	3220	3730	3330
Manganese	28.1	25.2	25.3	32.1
Phosphorus	6610	7160	6420	5760
Potassium	6400	7030	6920	7910
Sodium	< 100	< 100	< 100	< 100
Zinc	25.6	26.9	29.5	32.6
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	8.49	8.03	7.49	4.86
Total Indolyl	3.02	3.57	3.91	3.34
Total Glucosinolates	11.8	11.8	11.6	8.48

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254171	11254155	11254178	11254179
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Hyola 401	Hyola 401	Hyola 401	Q2
Site	SKSA	SKSA	SKSA	SKSA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	206	306	405	103
Entry	5	5	5	2
Covance LIMS Number	00400127	00400062	00400038	00400147
Amino Acids (mg/g)				
Aspartic Acid	15.6	15.6	16.3	16.2
Threonine	9.20	9.22	9.36	9.56
Serine	9.97	9.69	10.4	10.8
Glutamic Acid	40.5	39.9	43.5	45.5
Proline	15.0	14.3	14.9	15.7
Glycine	11.0	11.0	11.5	11.6
Alanine	9.93	9.86	10.6	11.2
Cystine	5.90	5.61	5.88	6.52
Valine	11.5	11.4	12.2	12.5
Methionine	4.63	4.39	4.73	5.02
Isoleucine	8.90	8.88	9.55	9.74
Leucine	15.7	15.6	16.9	17.5
Tyrosine	6.30	6.14	6.71	6.63
Phenylalanine	9.39	9.24	9.94	10.2
Lysine	13.8	13.5	14.5	14.9
Histidine	6.24	6.13	6.54	6.69
Arginine	13.9	13.7	14.6	15.1
Tryptophan	2.45	1.90	2.35	2.57

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254171	11254155	11254178	11254179
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Hyola 401	Hyola 401	Hyola 401	Q2
Site	SKSA	SKSA	SKSA	SKSA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	206	306	405	103
Entry	5	5	5	2
Covance LIMS Number	00400127	00400062	00400038	00400147
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.69	1.67	1.67	1.67
16:1 Palmitoleic	0.0943	0.0904	0.0960	0.103
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.987	0.973	0.917	0.764
18:1 Oleic	26.7	26.4	26.4	27.0
18:2 Linoleic	6.94	7.11	7.22	7.72
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	3.93	3.90	3.75	4.22
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.269	0.263	0.266	0.262
20:1 Eicosenoic	0.503	0.472	0.500	0.602
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400	0.0403
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.118	0.111	0.121	0.142
22:1 Erucic	0.0951	< 0.0400	0.0757	0.0657
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0690	0.0743	0.0807	0.0853
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	0.0778	< 0.0400	0.0624	0.0709

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254169	11254162	11254192	11254190
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Q2	Q2	Q2	SP Armada
Site	SKSA	SKSA	SKSA	SKSA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	208	303	410	110
Entry	2	2	2	4
Covance LIMS Number	00400089	00400079	00400143	00400106
Proximate (%)				
Moisture	4.80	4.39	4.70	4.53
Protein	21.7	20.4	24.9	25.0
Total Fat	46.0	45.5	44.3	43.7
Ash	4.04	3.80	3.90	3.95
Carbohydrates	23.5	25.9	22.2	22.8
Acid Detergent Fiber (%)	11.8	12.6	9.40	10.0
Neutral Detergent Fiber (%)	15.5	16.0	12.2	13.4
Total Dietary Fiber (%)	17.9	16.7	17.0	14.2
Vitamin E (mg/100g)	10.2	8.58	7.89	5.16
Phytic Acid (%)	2.08	1.80	1.70	1.77
Sinapic acid (ppm)	6780	6950	5870	6430
Minerals (ppm)				
Calcium	3950	3680	3450	3150
Copper	3.85	4.71	2.93	3.00
Iron	51.8	53.5	55.5	59.0
Magnesium	3760	3670	3550	3410
Manganese	23.8	27.6	28.7	29.5
Phosphorus	7270	6670	6470	6460
Potassium	7370	7150	7270	7640
Sodium	< 100	< 100	< 100	136
Zinc	30.2	27.9	35.3	36.5
Glucosinolates (µmol/g)				
Total Alkyl (Aliphatic)	6.64	6.07	5.24	5.82
Total Indolyl	3.99	3.52	3.47	2.73
Total Glucosinolates	10.9	9.95	8.92	9.56

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254169	11254162	11254192	11254190
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Q2	Q2	Q2	SP Armada
Site	SKSA	SKSA	SKSA	SKSA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	208	303	410	110
Entry	2	2	2	4
Covance LIMS Number	00400089	00400079	00400143	00400106
Amino Acids (mg/g)				
Aspartic Acid	15.1	14.4	16.8	17.2
Threonine	9.02	8.60	9.81	10.1
Serine	10.0	9.56	10.6	11.2
Glutamic Acid	39.0	36.8	45.6	46.5
Proline	13.9	13.0	15.6	15.7
Glycine	10.6	10.3	11.9	12.1
Alanine	9.96	9.36	11.2	11.1
Cystine	5.73	5.18	6.48	6.27
Valine	10.7	10.7	12.7	12.6
Methionine	4.58	4.03	5.01	5.01
Isoleucine	8.35	8.25	9.90	9.80
Leucine	15.4	14.7	17.5	17.8
Tyrosine	6.12	6.04	6.66	6.86
Phenylalanine	9.12	8.82	10.2	10.3
Lysine	13.4	13.0	15.1	15.4
Histidine	5.97	5.73	6.86	6.97
Arginine	13.3	13.0	15.4	15.5
Tryptophan	2.10	1.72	2.69	2.84

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254169	11254162	11254192	11254190
MON Number	Conventional	Conventional	Conventional	Conventional
Material Name	Q2	Q2	Q2	SP Armada
Site	SKSA	SKSA	SKSA	SKSA
Replicate Number	Rep 2	Rep 3	Rep 4	Rep 1
Treatment	NS	NS	NS	NS
Plot	208	303	410	110
Entry	2	2	2	4
Covance LIMS Number	00400089	00400079	00400143	00400106
Fatty Acids (%)				
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.71	1.72	1.64	1.63
16:1 Palmitoleic	0.101	0.103	0.0986	0.0937
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.863	0.908	0.812	0.747
18:1 Oleic	27.3	27.3	26.4	25.4
18:2 Linoleic	8.17	8.15	7.57	8.01
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	4.14	3.91	3.77	4.20
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.275	0.278	0.266	0.250
20:1 Eicosenoic	0.610	0.541	0.579	0.540
20:2 Eicosadienoic	0.0416	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.140	0.135	0.141	0.141
22:1 Erucic	0.129	0.0719	0.0609	< 0.0400
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	0.0583	< 0.0400	< 0.0400	0.0778
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	0.0671	< 0.0400	< 0.0400	0.0617

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254158	11254174	11254182
MON Number	Conventional	Conventional	Conventional
Material Name	SP Armada	SP Armada	SP Armada
Site	SKSA	SKSA	SKSA
Replicate Number	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS
Plot	202	311	401
Entry	4	4	4
Covance LIMS Number	00400067	00400009	00400071
Proximate (%)			
Moisture	4.54	4.50	4.51
Protein	23.3	25.1	22.1
Total Fat	45.8	43.2	45.7
Ash	3.47	4.24	3.75
Carbohydrates	22.9	23.0	23.9
Acid Detergent Fiber (%)	12.5	11.7	12.6
Neutral Detergent Fiber (%)	13.9	14.5	14.1
Total Dietary Fiber (%)	17.2	18.1	15.9
Vitamin E (mg/100g)	8.78	6.10	9.53
Phytic Acid (%)	1.55	2.42	1.74
Sinapic acid (ppm)	7010	4820	7680
Minerals (ppm)			
Calcium	3290	3580	3520
Copper	2.41	3.10	2.58
Iron	52.0	62.6	53.4
Magnesium	3550	3640	3540
Manganese	28.4	28.9	29.9
Phosphorus	5920	7060	6340
Potassium	6850	8750	6980
Sodium	< 100	< 100	< 100
Zinc	30.4	38.2	29.9
Glucosinolates (µmol/g)			
Total Alkyl (Aliphatic)	5.39	5.19	6.47
Total Indolyl	3.40	1.76	3.03
Total Glucosinolates	9.40	7.56	9.94

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254158	11254174	11254182
MON Number	Conventional	Conventional	Conventional
Material Name	SP Armada	SP Armada	SP Armada
Site	SKSA	SKSA	SKSA
Replicate Number	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS
Plot	202	311	401
Entry	4	4	4
Covance LIMS Number	00400067	00400009	00400071
Amino Acids (mg/g)			
Aspartic Acid	16.4	17.1	15.7
Threonine	9.39	9.99	9.11
Serine	10.3	11.0	10.1
Glutamic Acid	43.2	47.3	42.1
Proline	15.0	16.3	14.5
Glycine	11.5	12.0	11.3
Alanine	10.4	11.2	10.2
Cystine	6.05	6.56	5.80
Valine	12.1	12.9	11.9
Methionine	4.65	5.04	4.43
Isoleucine	9.35	10.0	9.19
Leucine	16.6	18.0	16.3
Tyrosine	6.59	6.89	6.40
Phenylalanine	9.67	10.4	9.49
Lysine	14.5	15.2	14.3
Histidine	6.57	6.97	6.44
Arginine	14.5	16.3	14.3
Tryptophan	2.01	2.51	1.86

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

Table 1
Compositional Analyses of Canola Seed

Orion ID	11254158	11254174	11254182
MON Number	Conventional	Conventional	Conventional
Material Name	SP Armada	SP Armada	SP Armada
Site	SKSA	SKSA	SKSA
Replicate Number	Rep 2	Rep 3	Rep 4
Treatment	NS	NS	NS
Plot	202	311	401
Entry	4	4	4
Covance LIMS Number	00400067	00400009	00400071
Fatty Acids (%)			
8:0 Caprylic	< 0.0400	< 0.0400	< 0.0400
10:0 Capric	< 0.0400	< 0.0400	< 0.0400
12:0 Lauric	< 0.0400	< 0.0400	< 0.0400
14:0 Myristic	< 0.0400	< 0.0400	< 0.0400
14:1 Myristoleic	< 0.0400	< 0.0400	< 0.0400
15:0 Pentadecanoic	< 0.0400	< 0.0400	< 0.0400
15:1 Pentadecenoic	< 0.0400	< 0.0400	< 0.0400
16:0 Palmitic	1.72	1.64	1.70
16:1 Palmitoleic	0.0963	0.0933	0.0946
17:0 Heptadecanoic	< 0.0400	< 0.0400	< 0.0400
17:1 Heptadecenoic	< 0.0400	< 0.0400	< 0.0400
18:0 Stearic	0.807	0.748	0.827
18:1 Oleic	27.2	25.7	27.1
18:2 Linoleic	8.00	7.99	8.30
18:3 gamma-Linolenic	< 0.0400	< 0.0400	< 0.0400
18:3 Linolenic	4.24	4.11	4.18
18:4 Octadecatetraenoic	< 0.0400	< 0.0400	< 0.0400
20:0 Arachidic	0.274	0.247	0.262
20:1 Eicosenoic	0.554	0.525	0.526
20:2 Eicosadienoic	< 0.0400	< 0.0400	< 0.0400
20:4 Arachidonic	< 0.0400	< 0.0400	< 0.0400
20:3 Eicosatrienoic	< 0.0400	< 0.0400	< 0.0400
20:5 Eicosapentaenoic	< 0.0400	< 0.0400	< 0.0400
22:0 Behenic	0.153	0.138	0.140
22:1 Erucic	< 0.0400	< 0.0400	< 0.0400
22:5 Docosapentaenoic	< 0.0400	< 0.0400	< 0.0400
24:0 Lignoceric	< 0.0400	0.0878	< 0.0400
22:6 Docosahexaenoic	< 0.0400	< 0.0400	< 0.0400
24:1 Nervonic	< 0.0400	0.0714	< 0.0400

S-post-emergence treatment with glyphosate
NS-no post-emergence treatment with glyphosate

APPENDIX A
Analytical Method Summaries and Reference Standards

Analytical Method Summaries and Reference Standards

Acid Detergent Fiber (ADFA)
The ANKOM2000 Fiber analyzer automated the process of removal of proteins, carbohydrates, and ash. Fats and pigments were removed with an acetone wash prior to analysis. The fibrous residue that is primarily cellulose and lignin and insoluble protein complexes remained in the Ankom filter bag, and were determined gravimetrically. The results are reported on fresh weight basis. The limit of quantitation for this study was 0.100%.

Reference:
Forage and Fiber Analyses, Agriculture Handbook No.379, United States Department of Agriculture, Washington, D.C. (1970).

Komarek, A. R., Robertson J. B., and Van Soest, P. J., "A Comparison of Methods for Determining ADF Using the Filter Bag Technique versus Conventional Filtration," *Journal of Dairy Science* Vol. 77 Supplement 1. (1993).

Amino Acid Composition (TAA5)
The sample was assayed by three methods to obtain the full profile. Tryptophan required a base hydrolysis with sodium hydroxide. The sulfur-containing amino acids required an oxidation with performic acid prior to hydrolysis with hydrochloric acid. Analysis of the samples for the remaining amino acids was accomplished through direct acid hydrolysis with hydrochloric acid. Once hydrolyzed, the individual amino acids were then quantitated using an automated amino acid analyzer. The results are reported on fresh weight basis. The limit of quantitation for this study was 0.100%.

Reference Standards:
Thermo Scientific, K18 amino acid standard H, 2.5 ± 0.1 µmol/mL per constituent except cystine (1.25 ± 0.1 µmol/mL), Lot Number KG137091
Sigma, L-Tryptophan, 100%, Lot Number 097K0119
Sigma / BioChemika, L-Cysteic Acid Monohydrate, 99.5% (used as 100%), Lot Number 1305674
Sigma-Aldrich, L-Methionine Sulfone, 100%, Lot Number 047K1321
Sigma, L-Norvaline, 100%, 087K1954

Reference:
Official Methods of Analysis of AOAC INTERNATIONAL, 18th Ed., Method 982.30, AOAC INTERNATIONAL: Gaithersburg, Maryland, (2005).

Ash (ASHM)
The sample was placed in an electric furnace at 550°C and ignited. The nonvolatile matter remaining was quantitated gravimetrically and calculated to determine percent ash.

The results are reported on fresh weight basis. The limit of quantitation for this study was 0.100%.

Reference:
Official Methods of Analysis of AOAC INTERNATIONAL, 18th Ed., Method 923.03, AOAC INTERNATIONAL: Gaithersburg, Maryland, (2005).

Carbohydrates (CHO)
The total carbohydrate level was calculated by difference using the fresh weight-derived data and the following equation:

% carbohydrates = 100 % - (% protein + % fat + % moisture + % ash)

The results are reported on fresh weight basis. The limit of quantitation for this study was 0.100%.

Reference:
United States Department of Agriculture, "Energy Value of Foods", *Agriculture Handbook No. 74,* pp. 2-11, (1973).

Fat by Soxhlet Extraction (FSOX)
The sample was weighed into a cellulose thimble containing sodium sulfate and dried to remove excess moisture. Pentane was dripped through the sample to remove the fat. The extract was then evaporated, dried, and weighed. The results are reported on fresh weight basis. The limit of quantitation for this study was 0.100%.

Reference:
Official Methods of Analysis of AOAC INTERNATIONAL, 18th Ed., Methods 960.39 and 948.22, AOAC INTERNATIONAL: Gaithersburg, Maryland, (2005).

Fatty Acids as Triglycerides (FALC)
The lipid was extracted, saponified with 0.5N methanolic sodium hydroxide, and methylated with 14% boron trifluoride in methanol. The resulting methyl esters of the fatty acids were extracted with heptane containing an internal standard. The methyl esters of the fatty acids were analyzed by gas chromatography using external standards for quantitation. The results are reported on fresh weight basis. The limit of quantitation was 0.0400%.

Reference Standards:

Component	Lot Number	Component	Weight (%)	Purity (%)
Nu-Chek Prep GLC Reference Standard Hazelton No. 1	MA30-U	Methyl Octanoate	16.66	99.6
		Methyl Decanoate	16.66	99.5
		Methyl Laurate	16.66	99.8
		Methyl Myristate	16.66	99.8
		Methyl Palmitoleate	16.66	99.7
		Methyl Linolenate	16.66	99.4
Nu-Chek Prep GLC Reference Standard Hazelton No. 2	AU24-T	Methyl Arachidate	33.33	99.6
		Methyl 11-Eicosenoate	33.33	99.5
		Methyl Arachidonate	33.33	99.6
Nu-Chek Prep GLC Reference Standard Hazelton No. 3	JY17-T	Methyl Myristoleate	12.5	99.6
		Methyl Pentadecanoate	12.5	99.6
		Methyl 10-Pentadecenoate	12.5	99.5
		Methyl Heptadecanoate	12.5	99.7
		Methyl 10-Heptadecenoate	12.5	99.6
		Methyl 11-14 Eicosadienoate	12.5	99.6
		Methyl Behenate	12.5	99.8
		Methyl 11-14-17 Eicosatrienoate	12.5	99.5
Nu-Chek Prep GLC Reference Standard Hazelton No. 4	MA30-U	Methyl Palmitate	27.0	99.6
		Methyl Stearate	19.0	99.5
		Methyl Oleate	27.0	99.8
		Methyl Linoleate	27.0	99.8

Nu Chek Prep Methyl Gamma Linolenate, used as 100%, Lot Number U-63M-08-T
Nu Chek Prep Methyl Tridecanoate, used as 100%, Lot Number N-13M-MA25-T
Nu Chek Prep Methyl Erucate, used as 100%, Lot Numbers U-79M-JA28-T
Nu Chek Prep Methyl Lignocerate, used as 100%, Lot Number N-24M-S8-T
Nu Chek Prep Methyl Docosapentaenoate, used as 100%, Lot Number U-101M-D4-T
Nu Chek Prep Methyl Docosahexaenoate, used as 100%, Lot NumberU-84M-JA15-U
Nu Chek Prep Methyl Eicosapentaenoate, used as 100%, Lot Number U-99M-S22-T
Nu Chek Prep Methyl Nervonate, used as 100%, Lot Number U-88M-MA31-U
Cayman Chemicals Steariodonic Acid Methyl Ester, 100%, Lot Number 0407775

References:

Official Methods of Analysis of AOAC INTERNATIONAL, 18th Ed., Method 983.23, AOAC INTERNATIONAL, Gaithersburg, Maryland, (2005).

Official Methods and Recommended Practices of the AOCS, 5th Ed., Methods Ce 2-66 (1997), Ce 1b-89 (1997), Ce 1d-91 (2007) and Ce 1i-07 (2007) , American Oil Chemists' Society: Champaign, Illinois.

Glucosinolates (GLLC)
Glucosinolates were extracted using 70% methanol at 75°C. They were then purified and enzymatically desulfatated on ion-exchange resin. Determination was by reversed-phase high performance liquid chromatography with gradient elution and ultraviolet detection using an internal standard. Quantification was performed based on the relative responses to the internal standards. Peak identification was made based on retention times determined by comparing the chromatograms of internal standard(s) and three BCR certified rapeseed controls. The results are reported on fresh weight basis. The limit of quantitation was 0.00300 µmole/g.

Reference Standard:
Chromadex, Glucotropaeolin Potassium Salt, 98.7%, Lot Number 07300-304

Reference:
International Standard Organization (ISO), "Rapeseed – Determination of Gluconsinolates Content. Part 1: Method Using High-Performance Liquid Chromatography," Reference Number ISO 9167-1:1992(E).

ICP Emission Spectrometry (ICPS)
The sample was dried, precharred, and ashed overnight in a muffle set to maintain 500°C. The ashed sample was re-ashed with nitric acid, treated with hydrochloric acid, taken to dryness, and put into a solution of 5% hydrochloric acid. The amount of each element was determined at appropriate wavelengths by comparing the emission of the unknown sample, measured on the inductively coupled plasma spectrometer, with the emission of the standard solutions. The results are reported on fresh weight basis.

Inorganic Ventures Reference Standards and Limits of Quantitation:

Mineral Lot	Numbers	Concentration (µg/mL)	Limit of Quantitation (ppm)
Calcium	D2-MEB322092MCA, D2-MEB322094	200, 1000	20.0
Copper	D2-MEB322092MCA, D2-MEB322093MCA	2.00, 10.0	0.500
Iron	D2-MEB322092MCA, D2-MEB322095	10.0, 50.0	2.00
Magnesium	D2-MEB322092MCA, D2-MEB322093MCA	50.0, 250	20.0
Manganese	D2-MEB322092MCA, D2-MEB322093MCA	2.00, 10.0	0.300
Phosphorus	D2-MEB322092MCA, D2MEB322094	200, 1000	20.0
Potassium	D2-MEB322092MCA, D2-MEB322094	200, 1000	100
Sodium	D2-MEB322092MCA, D2-MEB322094	200, 1000	100
Zinc	D2-MEB322092MCA, D2-MEB322093MCA	10.0, 50.0	0.400

Reference:
Official Methods of Analysis of AOAC INTERNATIONAL, 18th Ed., Methods 984.27 and 985.01, AOAC INTERNATIONAL: Gaithersburg, Maryland, (2005).

Moisture (M100)
The sample was dried in a vacuum oven at approximately 100°C to a constant weight. The moisture weight loss was determined and converted to percent moisture. The results are reported on fresh weight basis. The limit of quantitation for this study was 0.100%.

Reference:
Official Methods of Analysis of AOAC INTERNATIONAL, 18th Ed., Methods 926.08 and 925.09, AOAC INTERNATIONAL: Gaithersburg, Maryland, (2005).

Neutral Detergent Fiber, Enzyme Method (NDFA)
The ANKOM2000 Fiber Analyzer automated the process of the removal of proteins, carbohydrates, and ash. The fats and pigments were removed with an acetone wash prior to analysis. Hemicellulose, cellulose, lignin and insoluble protein fraction was left in the filter bag and determined gravimetrically. The results are reported on fresh weight basis. The limit of quantitation for this study was 0.100%.

References:
Approved Methods of the American Association of Cereal Chemists, 9th Ed., Method 32.20, (1998).

Forage and Fiber Analyses, Agriculture Handbook No. 379, United States Department of Agriculture, (1970).

Komarek, A. R., Robertson, J. B., and Van Soest, P. J., "Comparison of the Filter Bag Technique to Conventional Filtration in the Van Soest NDF Analysis of 21 Feeds," Presented at National Conference on Forage Quality, Evaluation and Utilization Proceedings (University of Nebraska) (1994).

Phytic Acid (PHYT)
The sample was extracted using 0.5M HCl with ultrasonication. Purification and concentration were accomplished on a silica-based anion-exchange column. The sample was analyzed on a polymer high-performance liquid chromatography column PRP-1, 5µm (150 x 4.1mm) with a refractive index detector. The results are reported on fresh weight basis. The limit of quantitation for this study was 0.100%.

Reference Standard:
Sigma-Aldrich, Phytic Acid Sodium Salt Hydrate, 96%, Lot Number 089K0159

References:
Lehrfeld, Jacob, "HPLC Separation and Quantitation of Phytic Acid and Some Inositol Phosphates in Foods: Problem and Solutions," *Journal of Agricultural and Food Chemistry*, 42:2726-2731, (1994).

Lehrfeld, Jacob, "High-Performance Liquid Chromatography Analysis of Phytic Acid on a pH-Stable, Macroporous Polymer Column," *Cereal Chemistry*, 66(6):510-515, (1989).

Protein (PGEN)
The protein and other organic nitrogen in the sample were converted to ammonia by digesting the sample with sulfuric acid containing a catalyst mixture. The acid digest was made alkaline. The ammonia was distilled and then titrated with a previously standardized acid. The percent nitrogen was calculated and converted to equivalent protein using the factor 6.25. The results are reported on fresh weight basis. The limit of quantitation for this study was 0.100%.

References:
Official Methods of Analysis of AOAC INTERNATIONAL, 18th Ed., Methods 955.04 and 979.09, AOAC INTERNATIONAL, Gaithersburg, Maryland, (2005).

Official Methods and Recommended Practices of the AOCS, 5th Edition, Method Ac 4-91, American Oil Chemists' Society: Champaign, Illinois.

Sinapic Acid (SINA)
The ground sample was extracted with methanol followed by alkaline hydrolysis and buffering prior to injection on an analytical high-performance liquid chromatography (HPLC) system for quantification of sinapic acid by ultra violet (UV) detection. The results are reported on fresh weight basis. The limit of quantitation for the sinapic acid assay was 200 ppm.

Reference Standard:
Sigma, Sinapic Acid, 99.3%, Lot No. 079K1171

References:
Hagerman, A. E. and Nicholson, R. L., "High-Performance Liquid Chromatographic Determination of Hydroxycinnamic Acids in Maize Mesocotyl," *Journal of Agricultural and Food Chemistry*, 30 (No. 6):1098-1102, (1982).

Covance 2100-924, "Analytical Method Validation of Ferulic Acid, p-Coumaric Acid, Sinapic Acid, and Caffeic Acid in Canola Seed and Corn Grain."

Total Dietary Fiber (TDF)
Duplicate samples were gelatinized with α-amylase and digested with enzymes to break down starch and protein. Ethanol was added to each sample to precipitate the soluble fiber. The sample was filtered, and the residue was rinsed with ethanol and acetone to remove starch and protein degradation products and moisture. Protein content was determined for one of the duplicates; ash content was determined for the other. The total dietary fiber in the sample was calculated using protein and ash values. The results were reported on fresh weight basis. The limit of quantitation for this study was 1.00 %.

Reference:
Official Methods of Analysis of AOAC INTERNATIONAL, 18th Ed., Method 985.29, AOAC INTERNATIONAL: Gaithersburg, Maryland, (2005).

Vitamin E (LCAT)
The sample was saponified to break down any fat and release vitamin E. The saponified mixture was extracted with ethyl ether and then quantitated by high-performance liquid chromatography using a silica column. The results are reported on fresh weight basis. The limit of quantitation for this study was 0.500 mg/100g.

Reference Standard:
USP, Alpha Tocopherol, 98.9%, Lot Number N0F068

References:
Speek, A. J., Schijver, J., and Schreurs, W. H. P., "Vitamin E Composition of Some Seed Oils as Determined by High-Performance Liquid Chromatography with Fluorometric Quantitation," *Journal of Food Science,* 50(1):121-124, (1985).

Cort, W. M., Vincente, T. S., Waysek, E. H., and Williams, B. D., "Vitamin E Content of Feedstuffs Determined by High-Performance Liquid Chromatographic Fluorescence," *Journal of Agricultural and Food Chemistry,* 31:1330-1333, (1983).

McMurray, C. H., Blanchflower, W. J., and Rice, D. A., "Influence of Extraction Techniques on Determination of alpha-Tocopherol in Animal Feedstuffs," *Journal of the Association of Official Analytical Chemists,* 63(6):1258-1261, (1980).

Appendix 2. Certus Statistical Sub-Report

Compositional Analyses of Canola Seed Collected from MON 88302 Grown in the United States during the 2008 Growing Season

The following 142 pages are the statistical sub-report
Pages 167─ 308

STATISTICAL REPORT

Compositional Analyses of Canola Seed Collected from MON 88302 Grown in the United States and Canada during the 2009 Growing Season

STUDY NUMBER: REG-10-045

SPONSOR: Monsanto Company
Biotechnology Regulatory Affairs
800 North Lindbergh Blvd.
St. Louis, MO 63167

PREPARED BY: Certus International, Inc.
1422 Elbridge Payne Road
Suite 200
Chesterfield, MO 63017

DATE: October 18, 2010

[redacted]
Manager, Biostatistics and Data Management

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Listings

1. Data Description

A SAS® dataset (datareg10045.sas7bdat, created 7/11/2010) containing canola seed compositional analysis data was received from Monsanto. Data were from test substance MON 88302 (untreated and herbicide-treated), conventional control substance Ebony, and seven commercial reference substances.

Canola seed of the test, control, and reference substances were collected from replicated plots at two United States and three Canadian sites during the 2009 growing season. The following table summarizes the distribution of replicates excluded from analyses due to excessive presence of unintended traits:

Country	Site	Excluded Samples[1]
U.S.	MNCA	1 rep MON 88302 (S)
U.S.	NDVA	2 reps MON 88302 (S), 1 rep Ebony, 1 rep Q2, 2 reps SP Armada
Canada	MBPL	1 rep MON 88302 (NS), 1 rep Ebony, 1 rep Hyola 401, 1 rep Q2
Canada	MBNW	2 reps MON 88302 (NS), 1 rep Ebony, 1 rep DSV Ability
Canada	SKSA	1 rep MON 88302 (S), 1 rep MON 88302 (NS)
[1](S) = herbicide-treated; (NS) = untreated.		

Reference substances were distributed as follows across sites:

Site MBNW	Site MBPL	Site MNCA	Site NDVA	Site SKSA
DSV Ability Q2 SValof Senator SValof Sponsor	Croplan 601 Hyola 401 Q2 SP Armada	DSV Ability Q2 SValof Senator SValof Sponsor	Croplan 601 Hyola 401 Q2 SP Armada	Croplan 601 Hyola 401 Q2 SP Armada

Components with greater than fifty percent of observations below the assay's limit of quantitation (LOQ) were excluded from analysis. Excluded components are presented in Listing 1. Otherwise, results below the LOQ were assigned a value equal to half the LOQ. The following components were assigned values:

		Obs. Below LOQ				
Component	**Units**	**N**	**(%)**	**Total N**	**LOQ**	**Value Assigned**
Seed Fatty Acid						
24:0 Lignoceric	% fw	24	19.5	123	0.040	0.020
24:1 Nervonic	% fw	34	27.6	123	0.040	0.020

Individual samples assigned a value are presented in Listing 2.

® SAS is a registered trademark of SAS Institute Inc.

The following formulas were used for re-expression of canola seed composition data for statistical analysis:

Component	From (X)	To	Formula[1]
Proximates (excluding Moisture), Fiber, Phytic Acid	% fw	% dw	X/d
Alkyl Glucosinolate, Indolyl Glucosinolate, Total Glucosinolate	µmole/g fw	µmole /g dw	X/d
Sinapic Acid	ppm fw	% dw	$X/(10^4 d)$
Calcium, Magnesium, Phosphorus, Potassium, Sodium	ppm fw	g/100g dw	$X/(10^4 d)$
Copper, Iron, Manganese, Zinc	ppm fw	mg/kg dw	X/d
Vitamin E	mg/100g fw	mg/100g dw	X/d
Amino Acids (AA)	mg/g fw	% dw	X/(10d)
Fatty Acids (FA)	% fw	% Total FA	$(100)X_j/\Sigma X$, for each FA_j where ΣX is over all the FA
[1] 'X' is the individual sample value; 'd' is the fraction of the sample that is dry matter.			

2. Statistical Methods

The purpose of this study was to compare the composition of test substance MON 88302, either untreated or herbicide-treated, to a conventional control, Ebony, which has a genetic background representative of the test substances.

The SAS[1] GLM procedure was applied to all data (test, control and reference) to detect potential outliers in the dataset by screening studentized PRESS residuals. Substance, site, and replication effects were included in the model.

A PRESS residual[2] is the difference between any value and its predicted value from a statistical model that excludes the data point. The studentized version scales these residuals so that the values tend to have a standard normal distribution when outliers are absent. Thus, most values are expected to be between ± 3. Extreme data points that are also outside of the ± 6 studentized PRESS residual range are considered for exclusion, as outliers, from the final analyses. The following results had PRESS residual values outside of the ± 6 range.

Site	Rep	Substance	Component	ID	Sent Value	Value	PRESS Std Residual
Seed Proximate							
MBNW	1	SValof Sponsor	Carbohydrates	11254131	35.5	37.2703	8.6178
MBNW	1	SValof Sponsor	Total Fat	11254131	35.3	37.0604	-8.2888
Seed Fatty Acid							
MNCA	4	MON 88302 (Untreated)	18:3 Linolenic	11248634	2.75	6.8325	-11.8302
Seed Anti-nutrient							
MBPL	3	Croplan 601	Alkyl Glucosinolate	11248704	23.6	24.9762	6.0224
MBPL	3	Croplan 601	Total Glucosinolate	11248704	27.0	28.5745	6.2455

The flagged carbohydrates and total fat values were extreme and were removed from further analysis as outliers. The flagged 18:3 linolenic value was an extreme value but was not removed because it did not appear to be dramatically different from other nearby data values. The alkyl glucosinolate and total glucosinolate values were not extreme and were not removed.

The outlier test procedure was reapplied to the remaining data of all components for which an outlier was removed to detect potential outliers that were masked in the first analysis. No additional results were flagged as potential outliers.

All canola seed compositional components were statistically analyzed using a mixed model analysis of variance with the SAS MIXED procedure. The five replicated sites were analyzed both separately and combined. Individual replicated site analyses used model (1).

(1) $Y_{ij} = U + T_i + B_j + e_{ij}$,

where Y_{ij} = unique individual observation, U = overall mean, T_i = substance effect, B_j = random block effect, and e_{ij} = residual error.

Combined site analyses used model (2).

(2) $Y_{ijk} = U + T_i + L_j + B(L)_{jk} + LT_{ij} + e_{ijk}$,

where Y_{ijk} = unique individual observation, U = overall mean, T_i = substance effect, L_j = random site effect, $B(L)_{jk}$ = random block within site effect, LT_{ij} = random site by substance interaction effect, and e_{ijk} = residual error.

A tolerance interval is an interval that one can claim, with a specified degree of confidence, contains at least a specified proportion, p, of an entire sampled population for the parameter measured.

For each compositional component, 99% tolerance intervals were calculated that are expected to contain, with 95% confidence, 99% of the quantities expressed in the population of commercial conventional substances. Each estimate was based upon the average of observations per unique reference substance. Because negative quantities are not possible, negative calculated lower tolerance bounds were set to zero.

3. Statistical Results

SAS software was used to generate all summary statistics and perform all analyses. Report tables present p-values from SAS as either <0.001 or the actual value truncated to three decimal places.

Components with a statistically significant comparison ($p<0.05$) for each test substance vs. the control (Ebony) are summarized in Tables 1 through 2. Test vs. control statistical results are further summarized in Tables 3 through 26. For each component, least-square means, standard errors (S.E.), and the range of observed values are presented for each substance. Mean differences, standard errors of the differences, the range of observed differences, 95% confidence intervals for the mean differences and the significance probability are presented for each comparison. In addition, the range of the observed reference values and 99% tolerance intervals are presented.

Numbers of significant comparisons ($p< 0.05$) observed are summarized below:

Site	Comparisons Tested	No. of Significant Comparisons MON 88302 vs. Control (Ebony)	
		(Untreated)	(Herbicide-Treated)
MBNW	102	6	8
MBPL	102	15	18
MNCA	102	12	11
NDVA	102	9	10
SKSA	102	17	15
Combined	102	9	9

4. References

1. SAS Software Release 9.2 (TS1M0). Copyright (c) 2002-2008 by SAS Institute Inc., Cary, NC, USA.
2. Belsley, D. A., Kuh, E., Welsch, R. E. 1980. Regression Diagnostics: Identifying Influential Data and Sources of Collinearity. John Wiley & Sons, New York.

Table 1. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Untreated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in Combined-Site Analysis						
Seed Fatty Acid (% Total FA)						
18:0 Stearic	1.70	1.98	-13.92	<0.001	1.53 - 1.86	0.90, 3.05
18:1 Oleic	62.79	65.79	-4.55	<0.001	61.34 - 65.18	56.13, 70.69
18:2 Linoleic	19.37	17.67	9.60	<0.001	17.63 - 20.81	12.60, 24.49
18:3 Linolenic	9.44	7.98	18.19	<0.001	6.83 - 10.70	6.96, 11.73
20:0 Arachidic	0.54	0.60	-9.14	<0.001	0.51 - 0.58	0.45, 0.80
20:1 Eicosenoic	1.15	1.09	4.91	0.014	1.08 - 1.22	0.83, 1.68
22:0 Behenic	0.27	0.28	-4.58	0.048	0.24 - 0.29	0.19, 0.43
Seed Mineral						
Calcium (g/100g dw)	0.42	0.40	7.33	0.019	0.26 - 0.53	0.16, 0.61

Table 1. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in Combined-Site Analysis						
Seed Anti-nutrient						
Phytic Acid (% dw)	1.93	2.11	-8.54	0.036	1.11 - 2.51	0.70, 3.52
Statistical Differences Observed in More than One Individual Site						
Seed Fatty Acid (% Total FA)						
18:1 Oleic Site MBNW	62.98	65.71	-4.14	0.004	62.68 - 63.28	56.13, 70.69
18:1 Oleic Site MBPL	61.50	64.30	-4.34	<0.001	61.34 - 61.68	56.13, 70.69
18:1 Oleic Site MNCA	62.62	64.86	-3.46	0.016	61.81 - 64.85	56.13, 70.69
18:1 Oleic Site NDVA	64.63	68.38	-5.48	0.001	63.67 - 65.18	56.13, 70.69
18:1 Oleic Site SKSA	62.18	65.69	-5.35	0.001	61.50 - 63.36	56.13, 70.69
18:2 Linoleic Site MBNW	19.26	17.89	7.63	0.019	19.06 - 19.46	12.60, 24.49

Table 1. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in More than One Individual Site						
Seed Fatty Acid (% Total FA)						
18:2 Linoleic Site MBPL	20.71	19.18	7.97	<0.001	20.61 - 20.81	12.60, 24.49
18:2 Linoleic Site MNCA	20.01	18.35	9.00	0.001	19.87 - 20.22	12.60, 24.49
18:2 Linoleic Site NDVA	18.16	15.71	15.60	0.003	17.63 - 18.98	12.60, 24.49
18:2 Linoleic Site SKSA	18.67	17.22	8.44	0.012	17.92 - 19.21	12.60, 24.49
Seed Vitamin (mg/100g dw)						
Vitamin E (a-tocopherol) Site MBNW	13.54	9.36	44.59	0.005	13.06 - 14.01	3.88, 17.28
Vitamin E (a-tocopherol) Site MBPL	12.02	7.63	57.63	<0.001	11.77 - 12.23	3.88, 17.28
Vitamin E (a-tocopherol) Site MNCA	14.36	10.82	32.72	0.001	13.70 - 15.54	3.88, 17.28
Vitamin E (a-tocopherol) Site NDVA	16.85	9.43	78.57	0.004	15.24 - 18.71	3.88, 17.28

Table 1. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in More than One Individual Site						
Seed Vitamin (mg/100g dw)						
Vitamin E (a-tocopherol) Site SKSA	2.23	6.91	-67.81	0.030	1.27 - 3.87	3.88, 17.28
Seed Anti-nutrient						
Sinapic Acid (% dw) Site MBNW	1.00	0.92	7.77	0.007	1.00 - 1.02	0.57, 1.13
Sinapic Acid (% dw) Site MBPL	0.96	0.86	10.69	0.001	0.95 - 0.96	0.57, 1.13
Sinapic Acid (% dw) Site MNCA	1.06	0.96	10.59	<0.001	1.03 - 1.10	0.57, 1.13
Sinapic Acid (% dw) Site NDVA	1.01	0.83	22.22	0.001	0.95 - 1.07	0.57, 1.13
Sinapic Acid (% dw) Site SKSA	0.37	0.81	-55.10	0.003	0.29 - 0.47	0.57, 1.13
Seed Fatty Acid (% Total FA)						
18:0 Stearic Site MBPL	1.61	1.87	-13.69	0.001	1.56 - 1.64	0.90, 3.05

Table 1. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in More than One Individual Site						
Seed Fatty Acid (% Total FA)						
18:0 Stearic Site MNCA	1.60	1.86	-13.64	0.004	1.53 - 1.75	0.90, 3.05
18:0 Stearic Site NDVA	1.81	2.11	-14.24	0.003	1.76 - 1.86	0.90, 3.05
18:0 Stearic Site SKSA	1.75	2.08	-16.09	0.004	1.70 - 1.76	0.90, 3.05
18:3 Linolenic Site MBNW	9.50	8.12	17.06	0.003	9.49 - 9.52	6.96, 11.73
18:3 Linolenic Site MBPL	9.26	7.74	19.57	<0.001	9.15 - 9.44	6.96, 11.73
18:3 Linolenic Site NDVA	8.90	7.31	21.68	<0.001	8.83 - 8.95	6.96, 11.73
18:3 Linolenic Site SKSA	10.30	8.38	22.94	0.001	10.06 - 10.70	6.96, 11.73
20:0 Arachidic Site MBPL	0.54	0.60	-9.26	<0.001	0.54 - 0.55	0.45, 0.80

Table 1. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in More than One Individual Site						
Seed Fatty Acid (% Total FA)						
20:0 Arachidic Site MNCA	0.53	0.57	-7.39	0.049	0.51 - 0.57	0.45, 0.80
20:0 Arachidic Site NDVA	0.57	0.65	-12.21	<0.001	0.56 - 0.58	0.45, 0.80
20:0 Arachidic Site SKSA	0.55	0.62	-10.58	0.001	0.55 - 0.55	0.45, 0.80
Seed Fatty Acid (% Total FA)						
20:1 Eicosenoic Site MBPL	1.13	1.08	4.93	0.005	1.13 - 1.14	0.83, 1.68
20:1 Eicosenoic Site MNCA	1.12	1.07	5.27	0.013	1.08 - 1.14	0.83, 1.68
20:1 Eicosenoic Site SKSA	1.21	1.13	6.85	0.018	1.20 - 1.22	0.83, 1.68
Seed Fiber (% dw)						
Acid Detergent Fiber Site MBPL	16.07	14.19	13.23	0.021	14.98 - 17.18	6.95, 23.92

Table 1. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in More than One Individual Site						
Seed Fiber (% dw)						
Acid Detergent Fiber Site SKSA	8.36	9.85	-15.13	0.012	7.06 - 9.89	6.95, 23.92
Seed Fatty Acid (% Total FA)						
16:1 Palmitoleic Site MBPL	0.23	0.25	-7.44	0.029	0.23 - 0.24	0.17, 0.30
16:1 Palmitoleic Site MNCA	0.21	0.24	-10.54	<0.001	0.21 - 0.22	0.17, 0.30
22:0 Behenic Site MBPL	0.27	0.30	-9.85	0.002	0.27 - 0.28	0.19, 0.43
22:0 Behenic Site NDVA	0.28	0.30	-7.02	0.010	0.27 - 0.29	0.19, 0.43
Seed Mineral						
Copper (mg/kg dw) Site MBPL	3.46	3.97	-13.00	0.018	3.38 - 3.59	2.00, 4.43
Copper (mg/kg dw) Site MNCA	4.53	4.11	10.05	0.004	4.38 - 4.66	2.00, 4.43

Table 1. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in More than One Individual Site						
Seed Mineral						
Iron (mg/kg dw) Site MBPL	45.24	51.01	-11.30	0.004	44.21 - 46.09	23.39, 86.23
Iron (mg/kg dw) Site MNCA	42.88	50.64	-15.32	0.006	40.73 - 46.89	23.39, 86.23
Seed Anti-nutrient						
Alkyl Glucosinolate (µmole/g dw) Site MBNW	3.96	5.43	-26.96	0.022	3.82 - 4.15	0, 29.02
Alkyl Glucosinolate (µmole/g dw) Site SKSA	3.50	5.82	-39.93	0.039	1.97 - 3.86	0, 29.02
Statistical Differences Observed in One Individual Site						
Seed Proximate (% dw)						
Carbohydrates Site MNCA	27.66	25.99	6.42	0.011	27.02 - 28.26	23.12, 30.77
Total Fat Site MNCA	45.52	46.59	-2.29	0.047	43.57 - 47.32	39.65, 51.24

Table 1. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in One Individual Site						
Seed Fiber (% dw)						
Neutral Detergent Fiber Site SKSA	10.15	12.59	-19.39	0.017	8.82 - 11.23	10.07, 25.94
Total Dietary Fiber Site SKSA	15.59	17.21	-9.41	0.044	14.87 - 16.90	13.97, 24.85
Seed Amino Acid (% dw)						
Tyrosine Site MBPL	0.72	0.71	2.74	0.028	0.71 - 0.75	0.57, 0.81
Seed Fatty Acid (% Total FA)						
16:0 Palmitic Site SKSA	4.42	4.07	8.58	0.002	4.28 - 4.57	2.84, 5.26
24:1 Nervonic Site SKSA	0.18	0.12	52.46	0.040	0.16 - 0.19	0.041, 0.18
Seed Mineral						
Calcium (g/100g dw) Site MBPL	0.36	0.34	8.00	0.032	0.35 - 0.37	0.16, 0.61
Potassium (g/100g dw) Site SKSA	0.79	0.71	11.41	0.002	0.76 - 0.87	0.39, 0.96

Table 1. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in One Individual Site						
Seed Anti-nutrient						
Indolyl Glucosinolate (µmole/g dw) Site SKSA	1.83	3.30	-44.41	0.007	1.06 - 1.98	1.37, 6.62
Phytic Acid (% dw) Site NDVA	1.33	1.59	-16.21	0.033	1.13 - 1.58	0.70, 3.52
Total Glucosinolate (µmole/g dw) Site SKSA	5.45	9.22	-40.83	0.020	3.11 - 5.96	0, 32.20

[1]dw = dry weight; FA = fatty acid.
[2]Test refers to MON 88302 (Untreated). These plants were not sprayed with herbicide, but received another conventional treatment as was done for the conventional control.
[3]Mean = least-square mean.
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 2. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Herbicide-Treated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in Combined-Site Analysis						
Seed Fiber (% dw)						
Total Dietary Fiber	20.90	18.37	13.81	0.004	16.91 - 27.81	13.97, 24.85
Seed Fatty Acid (% Total FA)						
16:1 Palmitoleic	0.22	0.24	-7.56	0.008	0.20 - 0.26	0.17, 0.30
18:0 Stearic	1.68	1.98	-15.06	<0.001	1.54 - 1.87	0.90, 3.05
18:1 Oleic	62.82	65.79	-4.52	<0.001	60.51 - 65.20	56.13, 70.69
18:2 Linoleic	19.26	17.67	8.98	<0.001	17.78 - 20.66	12.60, 24.49
18:3 Linolenic	9.58	7.98	20.01	<0.001	8.71 - 11.23	6.96, 11.73
20:0 Arachidic	0.54	0.60	-10.68	<0.001	0.50 - 0.57	0.45, 0.80
22:0 Behenic	0.27	0.28	-6.01	0.016	0.24 - 0.29	0.19, 0.43

Table 2. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in Combined-Site Analysis						
Seed Anti-nutrient						
Alkyl Glucosinolate (µmole/g dw)	3.68	5.08	-27.59	0.035	1.19 - 5.87	0, 29.02
Statistical Differences Observed in More than One Individual Site						
Seed Fatty Acid (% Total FA)						
18:0 Stearic Site MBNW	1.73	1.97	-12.23	0.028	1.64 - 1.87	0.90, 3.05
18:0 Stearic Site MBPL	1.58	1.87	-15.64	<0.001	1.55 - 1.59	0.90, 3.05
18:0 Stearic Site MNCA	1.67	1.86	-10.01	0.022	1.65 - 1.71	0.90, 3.05
18:0 Stearic Site NDVA	1.77	2.11	-16.06	0.004	1.71 - 1.84	0.90, 3.05
18:0 Stearic Site SKSA	1.66	2.08	-20.14	0.001	1.54 - 1.72	0.90, 3.05
18:1 Oleic Site MBNW	63.40	65.71	-3.51	0.004	62.94 - 64.03	56.13, 70.69

Table 2. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in More than One Individual Site						
Seed Fatty Acid (% Total FA)						
18:1 Oleic Site MBPL	62.06	64.30	-3.48	<0.001	61.82 - 62.35	56.13, 70.69
18:1 Oleic Site MNCA	61.67	64.86	-4.92	0.005	61.70 - 61.87	56.13, 70.69
18:1 Oleic Site NDVA	65.14	68.38	-4.74	0.003	64.90 - 65.20	56.13, 70.69
18:1 Oleic Site SKSA	61.91	65.69	-5.75	0.001	60.51 - 62.29	56.13, 70.69
18:2 Linoleic Site MBNW	19.27	17.89	7.71	0.011	18.82 - 19.66	12.60, 24.49
18:2 Linoleic Site MBPL	20.43	19.18	6.50	<0.001	20.13 - 20.66	12.60, 24.49
18:2 Linoleic Site MNCA	20.20	18.35	10.07	0.001	20.00 - 20.32	12.60, 24.49
18:2 Linoleic Site NDVA	17.86	15.71	13.67	0.009	17.78 - 18.02	12.60, 24.49

Table 2. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in More than One Individual Site						
Seed Fatty Acid (% Total FA)						
18:2 Linoleic Site SKSA	18.49	17.22	7.36	0.019	18.08 - 19.48	12.60, 24.49
Seed Vitamin (mg/100g dw)						
Vitamin E (a-tocopherol) Site MBNW	13.06	9.36	39.51	0.004	12.22 - 13.47	3.88, 17.28
Vitamin E (a-tocopherol) Site MBPL	11.50	7.63	50.83	<0.001	10.70 - 12.20	3.88, 17.28
Vitamin E (a-tocopherol) Site MNCA	13.39	10.82	23.73	0.006	12.58 - 14.62	3.88, 17.28
Vitamin E (a-tocopherol) Site NDVA	15.89	9.43	68.39	0.010	15.23 - 16.55	3.88, 17.28
Vitamin E (a-tocopherol) Site SKSA	1.49	6.91	-78.47	0.019	1.30 - 1.66	3.88, 17.28
Seed Anti-nutrient						
Sinapic Acid (% dw) Site MBNW	1.02	0.92	10.34	0.001	0.99 - 1.06	0.57, 1.13

Table 2. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in More than One Individual Site						
Seed Anti-nutrient						
Sinapic Acid (% dw) Site MBPL	0.97	0.86	12.04	<0.001	0.95 - 0.99	0.57, 1.13
Sinapic Acid (% dw) Site MNCA	1.06	0.96	10.66	0.001	1.02 - 1.08	0.57, 1.13
Sinapic Acid (% dw) Site NDVA	1.02	0.83	23.56	0.001	1.00 - 1.04	0.57, 1.13
Sinapic Acid (% dw) Site SKSA	0.22	0.81	-73.12	0.001	0.16 - 0.28	0.57, 1.13
Seed Fatty Acid (% Total FA)						
16:1 Palmitoleic Site MBNW	0.21	0.23	-9.71	0.015	0.20 - 0.21	0.17, 0.30
16:1 Palmitoleic Site MBPL	0.23	0.25	-10.10	0.008	0.22 - 0.23	0.17, 0.30
16:1 Palmitoleic Site MNCA	0.21	0.24	-10.88	0.001	0.21 - 0.21	0.17, 0.30
16:1 Palmitoleic Site NDVA	0.20	0.22	-11.05	0.036	0.20 - 0.20	0.17, 0.30

Table 2. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in More than One Individual Site						
Seed Fatty Acid (% Total FA)						
18:3 Linolenic Site MBNW	9.19	8.12	13.27	0.004	8.88 - 9.42	6.96, 11.73
18:3 Linolenic Site MBPL	9.28	7.74	19.89	<0.001	9.12 - 9.43	6.96, 11.73
18:3 Linolenic Site NDVA	8.82	7.31	20.67	<0.001	8.71 - 8.94	6.96, 11.73
18:3 Linolenic Site SKSA	10.78	8.38	28.69	<0.001	10.39 - 11.23	6.96, 11.73
Seed Fatty Acid (% Total FA)						
20:0 Arachidic Site MBPL	0.53	0.60	-11.73	<0.001	0.52 - 0.54	0.45, 0.80
20:0 Arachidic Site NDVA	0.57	0.65	-12.58	<0.001	0.56 - 0.57	0.45, 0.80
20:0 Arachidic Site SKSA	0.54	0.62	-13.28	<0.001	0.52 - 0.55	0.45, 0.80

Table 2. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in More than One Individual Site						
Seed Mineral						
Copper (mg/kg dw) Site MBNW	3.72	3.41	9.28	0.013	3.61 - 3.83	2.00, 4.43
Copper (mg/kg dw) Site MBPL	3.47	3.97	-12.50	0.016	3.35 - 3.56	2.00, 4.43
Copper (mg/kg dw) Site MNCA	4.40	4.11	6.91	0.027	4.16 - 4.57	2.00, 4.43
Seed Fatty Acid (% Total FA)						
22:0 Behenic Site MBPL	0.27	0.30	-13.00	<0.001	0.26 - 0.27	0.19, 0.43
22:0 Behenic Site NDVA	0.27	0.30	-9.83	0.007	0.27 - 0.27	0.19, 0.43
Seed Mineral						
Iron (mg/kg dw) Site MBPL	44.13	51.01	-13.48	0.001	42.80 - 45.09	23.39, 86.23
Iron (mg/kg dw) Site MNCA	42.57	50.64	-15.93	0.007	40.56 - 44.18	23.39, 86.23

Table 2. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in More than One Individual Site						
Seed Mineral						
Potassium (g/100g dw) Site MBPL	0.70	0.77	-8.91	0.023	0.63 - 0.76	0.39, 0.96
Potassium (g/100g dw) Site SKSA	0.82	0.71	15.32	<0.001	0.77 - 0.90	0.39, 0.96
Zinc (mg/kg dw) Site MBPL	31.25	33.88	-7.76	0.024	30.45 - 32.05	20.19, 48.23
Zinc (mg/kg dw) Site SKSA	41.58	33.10	25.61	0.010	39.33 - 45.49	20.19, 48.23
Statistical Differences Observed in One Individual Site						
Seed Proximate (% dw)						
Carbohydrates Site MNCA	27.31	25.99	5.07	0.035	26.27 - 27.90	23.12, 30.77
Moisture (% fw) Site MNCA	5.52	6.69	-17.46	<0.001	5.37 - 5.61	4.33, 6.91
Protein Site SKSA	23.82	22.14	7.58	0.038	23.62 - 24.58	17.20, 30.08

Table 2. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in One Individual Site						
Seed Proximate (% dw)						
Total Fat Site NDVA	48.04	45.17	6.35	0.014	47.20 - 48.87	39.65, 51.24
Seed Fiber (% dw)						
Acid Detergent Fiber Site MBPL	16.75	14.19	18.00	0.005	15.17 - 18.19	6.95, 23.92
Neutral Detergent Fiber Site MBPL	19.45	16.87	15.31	0.017	18.35 - 20.02	10.07, 25.94
Seed Amino Acid (% dw)						
Tyrosine Site MBPL	0.72	0.71	2.46	0.028	0.72 - 0.73	0.57, 0.81
Valine Site MNCA	1.15	1.24	-7.32	0.048	1.13 - 1.15	0.92, 1.55
Seed Fatty Acid (% Total FA)						
16:0 Palmitic Site SKSA	4.51	4.07	10.90	<0.001	4.46 - 4.57	2.84, 5.26
20:1 Eicosenoic Site SKSA	1.24	1.13	9.55	0.005	1.22 - 1.26	0.83, 1.68

Table 2. Summary of Differences (p<0.05) for the Comparison of Canola Seed Component Levels for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean[3]	Control[4] Mean	Mean Difference (Test minus Control) Mean Difference (% of Control)	Mean Difference (Test minus Control) Significance (p-Value)	Test Range	Commercial Tolerance Interval[5]
Statistical Differences Observed in One Individual Site						
Seed Fatty Acid (% Total FA)						
24:0 Lignoceric Site MBPL	0.16	0.19	-12.24	0.029	0.16 - 0.17	0.033, 0.25
24:1 Nervonic Site MBPL	0.13	0.16	-20.37	0.031	0.12 - 0.13	0.041, 0.18
Seed Anti-nutrient						
Alkyl Glucosinolate (µmole/g dw) Site SKSA	1.61	5.82	-72.32	0.005	1.19 - 2.17	0, 29.02
Indolyl Glucosinolate (µmole/g dw) Site SKSA	0.86	3.30	-73.88	0.001	0.49 - 1.31	1.37, 6.62
Total Glucosinolate (µmole/g dw) Site SKSA	2.53	9.22	-72.58	0.002	1.73 - 3.51	0, 32.20

[1]dw = dry weight; fw = fresh weight; FA = fatty acid.
[2]Test refers to MON 88302 (Herbicide-Treated).
[3]Mean = least-square mean.
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 3. Statistical Summary of Combined-Site Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Proximate (% dw)						
Ash	4.00 (0.18) (2.93 - 4.63)	3.90 (0.18) (3.20 - 5.10)	0.094 (0.095) (-0.96 - 1.08)	-0.099, 0.29	0.328	3.32, 4.66 (2.98 - 4.52)
Carbohydrates	26.47 (0.68) (23.82 - 28.31)	26.13 (0.68) (23.91 - 28.73)	0.34 (0.54) (-0.77 - 2.69)	-0.91, 1.60	0.544	23.12, 30.77 (22.53 - 29.96)
Moisture (% fw)	5.40 (0.34) (3.85 - 6.72)	5.45 (0.34) (4.41 - 6.98)	-0.042 (0.24) (-0.96 - 0.70)	-0.60, 0.51	0.864	4.33, 6.91 (4.09 - 8.48)
Protein	23.21 (0.70) (20.83 - 25.44)	23.14 (0.69) (20.29 - 27.02)	0.071 (0.52) (-2.47 - 3.41)	-1.14, 1.29	0.894	17.20, 30.08 (18.68 - 28.32)
Total Fat	46.18 (0.83) (43.57 - 49.65)	46.82 (0.83) (43.65 - 50.24)	-0.64 (0.52) (-3.37 - 1.40)	-1.88, 0.60	0.262	39.65, 51.24 (40.71 - 50.26)
Fiber (% dw)						
Acid Detergent Fiber	13.85 (1.36) (7.06 - 17.84)	14.47 (1.36) (8.94 - 18.71)	-0.62 (0.41) (-3.35 - 2.39)	-1.62, 0.37	0.178	6.95, 23.92 (9.75 - 21.22)

Table 3. Statistical Summary of Combined-Site Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fiber (% dw)						
Neutral Detergent Fiber	15.83 (1.38) (8.82 - 19.35)	16.70 (1.38) (11.56 - 19.58)	-0.87 (0.57) (-3.74 - 1.62)	-2.19, 0.44	0.163	10.07, 25.94 (10.93 - 22.75)
Total Dietary Fiber	18.57 (0.79) (14.87 - 23.31)	18.37 (0.78) (14.58 - 23.00)	0.20 (0.84) (-5.55 - 6.20)	-1.48, 1.89	0.810	13.97, 24.85 (12.64 - 26.47)
Amino Acid (% dw)						
Alanine	1.04 (0.025) (0.95 - 1.10)	1.04 (0.025) (0.93 - 1.19)	-0.00087 (0.022) (-0.13 - 0.13)	-0.052, 0.050	0.969	0.77, 1.34 (0.87 - 1.27)
Arginine	1.48 (0.054) (1.29 - 1.68)	1.51 (0.054) (1.29 - 1.77)	-0.033 (0.031) (-0.27 - 0.18)	-0.096, 0.031	0.304	1.10, 1.93 (1.23 - 1.96)
Aspartic Acid	1.69 (0.067) (1.44 - 1.90)	1.71 (0.067) (1.46 - 1.97)	-0.016 (0.043) (-0.39 - 0.33)	-0.12, 0.085	0.726	1.33, 2.12 (1.42 - 2.23)
Cystine	0.58 (0.027) (0.53 - 0.70)	0.58 (0.027) (0.49 - 0.79)	0.0040 (0.015) (-0.10 - 0.11)	-0.032, 0.040	0.804	0.38, 0.83 (0.45 - 0.79)

Table 3. Statistical Summary of Combined-Site Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Glutamic Acid	4.09 (0.18) (3.65 - 4.67)	4.24 (0.17) (3.64 - 5.26)	-0.15 (0.10) (-0.98 - 0.53)	-0.39, 0.087	0.179	2.73, 5.89 (3.26 - 5.43)
Glycine	1.16 (0.040) (1.02 - 1.27)	1.19 (0.040) (1.01 - 1.38)	-0.030 (0.025) (-0.19 - 0.15)	-0.089, 0.029	0.269	0.96, 1.47 (1.01 - 1.50)
Histidine	0.63 (0.023) (0.58 - 0.72)	0.65 (0.023) (0.57 - 0.78)	-0.011 (0.011) (-0.12 - 0.070)	-0.034, 0.011	0.314	0.47, 0.86 (0.54 - 0.80)
Isoleucine	0.94 (0.028) (0.87 - 1.04)	0.96 (0.028) (0.82 - 1.12)	-0.016 (0.021) (-0.15 - 0.17)	-0.066, 0.034	0.466	0.70, 1.22 (0.78 - 1.15)
Leucine	1.66 (0.049) (1.50 - 1.79)	1.68 (0.049) (1.46 - 1.95)	-0.021 (0.039) (-0.28 - 0.25)	-0.11, 0.069	0.598	1.21, 2.18 (1.36 - 2.07)
Lysine	1.41 (0.041) (1.28 - 1.58)	1.41 (0.041) (1.25 - 1.65)	-0.0019 (0.023) (-0.24 - 0.14)	-0.047, 0.044	0.933	1.02, 1.90 (1.20 - 1.68)

Table 3. Statistical Summary of Combined-Site Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Methionine	0.46 (0.015) (0.39 - 0.53)	0.46 (0.015) (0.40 - 0.56)	0.0037 (0.0089) (-0.062 - 0.070)	-0.017, 0.024	0.684	0.30, 0.65 (0.36 - 0.57)
Phenylalanine	0.99 (0.029) (0.90 - 1.09)	1.00 (0.028) (0.87 - 1.15)	-0.0078 (0.024) (-0.16 - 0.15)	-0.063, 0.047	0.749	0.77, 1.26 (0.84 - 1.25)
Proline	1.40 (0.054) (1.23 - 1.61)	1.42 (0.054) (1.20 - 1.73)	-0.027 (0.027) (-0.22 - 0.23)	-0.092, 0.038	0.354	0.90, 2.01 (1.12 - 1.78)
Serine	1.04 (0.030) (0.93 - 1.15)	1.05 (0.030) (0.94 - 1.18)	-0.0095 (0.019) (-0.19 - 0.13)	-0.054, 0.035	0.632	0.81, 1.32 (0.88 - 1.30)
Threonine	0.99 (0.030) (0.87 - 1.10)	1.00 (0.030) (0.88 - 1.12)	-0.0075 (0.018) (-0.12 - 0.11)	-0.048, 0.033	0.679	0.82, 1.20 (0.84 - 1.22)
Tryptophan	0.24 (0.010) (0.17 - 0.27)	0.24 (0.010) (0.19 - 0.31)	-0.0035 (0.0093) (-0.048 - 0.082)	-0.022, 0.015	0.709	0.13, 0.35 (0.17 - 0.32)

Table 3. Statistical Summary of Combined-Site Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Tyrosine	0.68 (0.019) (0.62 - 0.75)	0.69 (0.019) (0.61 - 0.77)	-0.0056 (0.013) (-0.10 - 0.083)	-0.037, 0.026	0.685	0.57, 0.81 (0.60 - 0.84)
Valine	1.21 (0.035) (1.12 - 1.33)	1.22 (0.035) (1.05 - 1.41)	-0.015 (0.025) (-0.17 - 0.22)	-0.074, 0.044	0.567	0.92, 1.55 (1.01 - 1.46)
Fatty Acid (% Total FA)						
16:0 Palmitic	4.24 (0.078) (3.91 - 4.57)	4.10 (0.077) (3.94 - 4.41)	0.14 (0.067) (-0.038 - 0.47)	-0.013, 0.30	0.067	2.84, 5.26 (3.55 - 4.69)
16:1 Palmitoleic	0.23 (0.0081) (0.21 - 0.27)	0.24 (0.0081) (0.22 - 0.26)	-0.012 (0.0053) (-0.039 - 0.017)	-0.024, 0.00046	0.057	0.17, 0.30 (0.19 - 0.27)
18:0 Stearic	1.70 (0.044) (1.53 - 1.86)	1.98 (0.044) (1.78 - 2.19)	-0.28 (0.031) (-0.40 - -0.16)	-0.35, -0.20	<0.001	0.90, 3.05 (1.50 - 2.64)
18:1 Oleic	62.79 (0.62) (61.34 - 65.18)	65.79 (0.62) (63.72 - 68.44)	-3.00 (0.31) (-4.46 - -0.43)	-3.71, -2.28	<0.001	56.13, 70.69 (57.86 - 68.53)

Table 3. Statistical Summary of Combined-Site Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fatty Acid (% Total FA)						
18:2 Linoleic	19.37 (0.51) (17.63 - 20.81)	17.67 (0.51) (15.72 - 19.29)	1.70 (0.17) (0.76 - 3.22)	1.31, 2.08	<0.001	12.60, 24.49 (14.12 - 22.57)
18:3 Linolenic	9.44 (0.27) (6.83 - 10.70)	7.98 (0.27) (7.19 - 8.99)	1.45 (0.21) (-1.49 - 2.42)	0.97, 1.93	<0.001	6.96, 11.73 (7.99 - 10.94)
20:0 Arachidic	0.54 (0.011) (0.51 - 0.58)	0.60 (0.011) (0.54 - 0.65)	-0.055 (0.0074) (-0.092 - 0.0059)	-0.072, -0.038	<0.001	0.45, 0.80 (0.53 - 0.71)
20:1 Eicosenoic	1.15 (0.024) (1.08 - 1.22)	1.09 (0.024) (1.00 - 1.18)	0.054 (0.017) (-0.011 - 0.15)	0.014, 0.093	0.014	0.83, 1.68 (1.04 - 1.56)
22:0 Behenic	0.27 (0.0072) (0.24 - 0.29)	0.28 (0.0072) (0.24 - 0.31)	-0.013 (0.0056) (-0.038 - 0.016)	-0.026, -0.00008	0.048	0.19, 0.43 (0.27 - 0.38)
24:0 Lignoceric	0.14 (0.016) (0.049 - 0.22)	0.16 (0.015) (0.045 - 0.22)	-0.012 (0.017) (-0.15 - 0.13)	-0.046, 0.022	0.477	0.033, 0.25 (0.044 - 0.21)

Table 3. Statistical Summary of Combined-Site Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fatty Acid (% Total FA)						
24:1 Nervonic	0.12 (0.015) (0.047 - 0.20)	0.11 (0.015) (0.045 - 0.17)	0.0083 (0.014) (-0.070 - 0.11)	-0.025, 0.042	0.581	0.041, 0.18 (0.044 - 0.20)
Mineral						
Calcium (g/100g dw)	0.42 (0.030) (0.26 - 0.53)	0.40 (0.030) (0.28 - 0.49)	0.029 (0.012) (-0.048 - 0.12)	0.0049, 0.053	0.019	0.16, 0.61 (0.25 - 0.53)
Copper (mg/kg dw)	3.80 (0.17) (3.38 - 4.66)	3.65 (0.17) (2.96 - 4.18)	0.16 (0.14) (-0.65 - 0.64)	-0.17, 0.48	0.299	2.00, 4.43 (2.52 - 4.93)
Iron (mg/kg dw)	51.77 (4.28) (40.73 - 98.17)	54.01 (4.24) (41.65 - 77.74)	-2.24 (2.88) (-22.10 - 43.42)	-8.83, 4.35	0.458	23.39, 86.23 (39.16 - 77.92)
Magnesium (g/100g dw)	0.36 (0.014) (0.30 - 0.43)	0.36 (0.014) (0.31 - 0.42)	0.00062 (0.0070) (-0.056 - 0.033)	-0.015, 0.017	0.931	0.32, 0.43 (0.30 - 0.45)
Manganese (mg/kg dw)	42.41 (2.02) (26.41 - 53.76)	40.34 (1.99) (33.12 - 50.97)	2.07 (1.82) (-20.70 - 15.86)	-1.63, 5.78	0.262	14.85, 61.05 (25.00 - 54.11)

Table 3. Statistical Summary of Combined-Site Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Mineral						
Phosphorus (g/100g dw)	0.71 (0.042) (0.45 - 0.84)	0.72 (0.041) (0.56 - 0.93)	-0.012 (0.022) (-0.14 - 0.22)	-0.058, 0.033	0.581	0.38, 1.06 (0.44 - 0.87)
Potassium (g/100g dw)	0.64 (0.053) (0.46 - 0.87)	0.64 (0.052) (0.53 - 0.81)	-0.00054 (0.025) (-0.088 - 0.098)	-0.059, 0.058	0.983	0.39, 0.96 (0.50 - 0.92)
Zinc (mg/kg dw)	34.89 (1.78) (28.97 - 50.06)	33.01 (1.76) (28.46 - 40.66)	1.88 (1.83) (-3.87 - 14.83)	-2.36, 6.12	0.334	20.19, 48.23 (22.18 - 47.61)
Vitamin (mg/100g dw)						
Vitamin E (a-tocopherol)	11.80 (2.08) (1.27 - 18.71)	8.85 (2.08) (3.33 - 11.77)	2.96 (1.66) (-7.67 - 9.07)	-0.86, 6.78	0.111	3.88, 17.28 (2.62 - 14.84)

[1]dw = dry weight; fw = fresh weight; FA = fatty acid.
[2]Test refers to MON 88302 (Untreated). These plants were not sprayed with herbicide, but received another conventional treatment as was done for the conventional control.
[3]Mean (S.E.) = least-square mean (standard error).
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 4. Statistical Summary of Combined-Site Canola Seed Anti-nutrients for MON 88302 (Untreated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Anti-nutrient						
Alkyl Glucosinolate (µmole/g dw)	3.87 (0.43) (1.97 - 5.80)	5.08 (0.42) (2.45 - 8.28)	-1.21 (0.59) (-3.61 - 2.03)	-2.51, 0.076	0.062	0, 29.02 (2.32 - 28.33)
Indolyl Glucosinolate (µmole/g dw)	3.83 (0.51) (1.06 - 6.13)	3.89 (0.50) (1.83 - 5.89)	-0.058 (0.45) (-1.62 - 2.85)	-1.09, 0.97	0.900	1.37, 6.62 (1.84 - 7.18)
Phytic Acid (% dw)	1.93 (0.18) (1.11 - 2.51)	2.11 (0.18) (1.46 - 2.77)	-0.18 (0.082) (-0.71 - 0.46)	-0.35, -0.012	0.036	0.70, 3.52 (1.10 - 2.71)
Sinapic Acid (% dw)	0.88 (0.12) (0.29 - 1.10)	0.88 (0.12) (0.65 - 0.97)	-0.00087 (0.11) (-0.66 - 0.21)	-0.25, 0.25	0.993	0.57, 1.13 (0.48 - 0.99)
Total Glucosinolate (µmole/g dw)	7.88 (0.87) (3.11 - 10.39)	9.08 (0.86) (4.38 - 12.72)	-1.20 (1.02) (-4.98 - 3.12)	-3.54, 1.14	0.271	0, 32.20 (5.52 - 31.98)

[1]dw = dry weight.
[2]Test refers to MON 88302 (Untreated). These plants were not sprayed with herbicide, but received another conventional treatment as was done for the conventional control.
[3]Mean (S.E.) = least-square mean (standard error).
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 5. Statistical Summary of Combined-Site Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Proximate (% dw)						
Ash	3.96 (0.18) (3.31 - 4.45)	3.90 (0.18) (3.20 - 5.10)	0.055 (0.095) (-0.21 - 0.64)	-0.14, 0.25	0.565	3.32, 4.66 (2.98 - 4.52)
Carbohydrates	25.96 (0.68) (21.83 - 28.81)	26.13 (0.68) (23.91 - 28.73)	-0.17 (0.54) (-4.18 - 1.94)	-1.42, 1.09	0.765	23.12, 30.77 (22.53 - 29.96)
Moisture (% fw)	5.35 (0.34) (3.90 - 6.08)	5.45 (0.34) (4.41 - 6.98)	-0.10 (0.24) (-1.53 - 0.87)	-0.65, 0.45	0.688	4.33, 6.91 (4.09 - 8.48)
Protein	23.04 (0.70) (19.68 - 25.98)	23.14 (0.69) (20.29 - 27.02)	-0.10 (0.52) (-2.29 - 2.50)	-1.32, 1.11	0.847	17.20, 30.08 (18.68 - 28.32)
Total Fat	47.06 (0.83) (43.96 - 49.26)	46.82 (0.83) (43.65 - 50.24)	0.24 (0.52) (-2.28 - 4.10)	-1.00, 1.48	0.659	39.65, 51.24 (40.71 - 50.26)
Fiber (% dw)						
Acid Detergent Fiber	15.32 (1.36) (9.19 - 20.24)	14.47 (1.36) (8.94 - 18.71)	0.84 (0.41) (-2.71 - 3.57)	-0.14, 1.83	0.082	6.95, 23.92 (9.75 - 21.22)

Table 5. Statistical Summary of Combined-Site Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fiber (% dw)						
Neutral Detergent Fiber	17.43 (1.38) (9.48 - 21.36)	16.70 (1.38) (11.56 - 19.58)	0.74 (0.57) (-2.74 - 4.43)	-0.58, 2.05	0.231	10.07, 25.94 (10.93 - 22.75)
Total Dietary Fiber	20.90 (0.79) (16.91 - 27.81)	18.37 (0.78) (14.58 - 23.00)	2.54 (0.84) (-0.49 - 9.96)	0.85, 4.23	0.004	13.97, 24.85 (12.64 - 26.47)
Amino Acid (% dw)						
Alanine	1.02 (0.025) (0.88 - 1.15)	1.04 (0.025) (0.93 - 1.19)	-0.015 (0.022) (-0.12 - 0.069)	-0.066, 0.035	0.502	0.77, 1.34 (0.87 - 1.27)
Arginine	1.45 (0.054) (1.23 - 1.72)	1.51 (0.054) (1.29 - 1.77)	-0.063 (0.032) (-0.27 - 0.15)	-0.13, 0.00082	0.052	1.10, 1.93 (1.23 - 1.96)
Aspartic Acid	1.65 (0.067) (1.40 - 1.93)	1.71 (0.067) (1.46 - 1.97)	-0.055 (0.043) (-0.37 - 0.12)	-0.16, 0.045	0.238	1.33, 2.12 (1.42 - 2.23)
Cystine	0.57 (0.027) (0.48 - 0.73)	0.58 (0.027) (0.49 - 0.79)	-0.0044 (0.015) (-0.054 - 0.053)	-0.040, 0.031	0.781	0.38, 0.83 (0.45 - 0.79)

Table 5. Statistical Summary of Combined-Site Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	95% Confidence Interval	Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Glutamic Acid	4.06 (0.18) (3.37 - 5.06)	4.24 (0.17) (3.64 - 5.26)	-0.19 (0.10) (-0.68 - 0.36)	-0.43, 0.049	0.103	2.73, 5.89 (3.26 - 5.43)
Glycine	1.14 (0.040) (1.02 - 1.32)	1.19 (0.040) (1.01 - 1.38)	-0.041 (0.025) (-0.18 - 0.044)	-0.10, 0.018	0.142	0.96, 1.47 (1.01 - 1.50)
Histidine	0.63 (0.023) (0.55 - 0.77)	0.65 (0.023) (0.57 - 0.78)	-0.015 (0.011) (-0.065 - 0.044)	-0.038, 0.0074	0.181	0.47, 0.86 (0.54 - 0.80)
Isoleucine	0.93 (0.028) (0.81 - 1.08)	0.96 (0.028) (0.82 - 1.12)	-0.024 (0.021) (-0.13 - 0.041)	-0.074, 0.026	0.299	0.70, 1.22 (0.78 - 1.15)
Leucine	1.64 (0.049) (1.40 - 1.90)	1.68 (0.049) (1.46 - 1.95)	-0.042 (0.039) (-0.25 - 0.086)	-0.13, 0.048	0.308	1.21, 2.18 (1.36 - 2.07)
Lysine	1.39 (0.041) (1.22 - 1.63)	1.41 (0.041) (1.25 - 1.65)	-0.019 (0.023) (-0.12 - 0.086)	-0.064, 0.027	0.410	1.02, 1.90 (1.20 - 1.68)

Table 5. Statistical Summary of Combined-Site Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Methionine	0.46 (0.015) (0.40 - 0.54)	0.46 (0.015) (0.40 - 0.56)	-0.0018 (0.0089) (-0.038 - 0.034)	-0.022, 0.019	0.847	0.30, 0.65 (0.36 - 0.57)
Phenylalanine	0.98 (0.029) (0.84 - 1.11)	1.00 (0.028) (0.87 - 1.15)	-0.024 (0.024) (-0.17 - 0.044)	-0.079, 0.031	0.348	0.77, 1.26 (0.84 - 1.25)
Proline	1.40 (0.054) (1.20 - 1.71)	1.42 (0.054) (1.20 - 1.73)	-0.028 (0.027) (-0.16 - 0.17)	-0.093, 0.036	0.335	0.90, 2.01 (1.12 - 1.78)
Serine	1.02 (0.030) (0.87 - 1.14)	1.05 (0.030) (0.94 - 1.18)	-0.035 (0.019) (-0.17 - 0.052)	-0.080, 0.0095	0.105	0.81, 1.32 (0.88 - 1.30)
Threonine	0.98 (0.030) (0.86 - 1.11)	1.00 (0.030) (0.88 - 1.12)	-0.025 (0.018) (-0.12 - 0.065)	-0.066, 0.016	0.192	0.82, 1.20 (0.84 - 1.22)
Tryptophan	0.23 (0.010) (0.17 - 0.26)	0.24 (0.010) (0.19 - 0.31)	-0.013 (0.0093) (-0.063 - 0.036)	-0.032, 0.0059	0.172	0.13, 0.35 (0.17 - 0.32)

Table 5. Statistical Summary of Combined-Site Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	95% Confidence Interval	Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Tyrosine	0.67 (0.019) (0.59 - 0.75)	0.69 (0.019) (0.61 - 0.77)	-0.017 (0.013) (-0.11 - 0.028)	-0.048, 0.015	0.249	0.57, 0.81 (0.60 - 0.84)
Valine	1.20 (0.035) (1.04 - 1.37)	1.22 (0.035) (1.05 - 1.41)	-0.025 (0.025) (-0.16 - 0.054)	-0.084, 0.034	0.352	0.92, 1.55 (1.01 - 1.46)
Fatty Acid (% Total FA)						
16:0 Palmitic	4.23 (0.078) (3.95 - 4.57)	4.10 (0.077) (3.94 - 4.41)	0.13 (0.067) (-0.22 - 0.48)	-0.027, 0.28	0.094	2.84, 5.26 (3.55 - 4.69)
16:1 Palmitoleic	0.22 (0.0081) (0.20 - 0.26)	0.24 (0.0081) (0.22 - 0.26)	-0.018 (0.0053) (-0.039 - 0.0074)	-0.030, -0.0059	0.008	0.17, 0.30 (0.19 - 0.27)
18:0 Stearic	1.68 (0.044) (1.54 - 1.87)	1.98 (0.044) (1.78 - 2.19)	-0.30 (0.031) (-0.48 - -0.059)	-0.37, -0.23	<0.001	0.90, 3.05 (1.50 - 2.64)
18:1 Oleic	62.82 (0.62) (60.51 - 65.20)	65.79 (0.62) (63.72 - 68.44)	-2.97 (0.31) (-4.30 - -1.52)	-3.69, -2.26	<0.001	56.13, 70.69 (57.86 - 68.53)

Table 5. Statistical Summary of Combined-Site Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fatty Acid (% Total FA)						
18:2 Linoleic	19.26 (0.51) (17.78 - 20.66)	17.67 (0.51) (15.72 - 19.29)	1.59 (0.17) (0.40 - 2.42)	1.20, 1.97	<0.001	12.60, 24.49 (14.12 - 22.57)
18:3 Linolenic	9.58 (0.27) (8.71 - 11.23)	7.98 (0.27) (7.19 - 8.99)	1.60 (0.21) (0.76 - 2.64)	1.12, 2.07	<0.001	6.96, 11.73 (7.99 - 10.94)
20:0 Arachidic	0.54 (0.011) (0.50 - 0.57)	0.60 (0.011) (0.54 - 0.65)	-0.064 (0.0074) (-0.091 - - 0.0032)	-0.081, -0.047	<0.001	0.45, 0.80 (0.53 - 0.71)
20:1 Eicosenoic	1.13 (0.024) (1.06 - 1.26)	1.09 (0.024) (1.00 - 1.18)	0.036 (0.017) (-0.042 - 0.14)	-0.0034, 0.076	0.068	0.83, 1.68 (1.04 - 1.56)
22:0 Behenic	0.27 (0.0072) (0.24 - 0.29)	0.28 (0.0072) (0.24 - 0.31)	-0.017 (0.0056) (-0.047 - 0.016)	-0.030, -0.0041	0.016	0.19, 0.43 (0.27 - 0.38)
24:0 Lignoceric	0.16 (0.016) (0.049 - 0.23)	0.16 (0.015) (0.045 - 0.22)	0.0038 (0.017) (-0.14 - 0.11)	-0.030, 0.038	0.823	0.033, 0.25 (0.044 - 0.21)

Table 5. Statistical Summary of Combined-Site Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fatty Acid (% Total FA)						
24:1 Nervonic	0.12 (0.015) (0.046 - 0.20)	0.11 (0.015) (0.045 - 0.17)	0.013 (0.014) (-0.072 - 0.081)	-0.020, 0.047	0.377	0.041, 0.18 (0.044 - 0.20)
Mineral						
Calcium (g/100g dw)	0.41 (0.030) (0.30 - 0.51)	0.40 (0.030) (0.28 - 0.49)	0.015 (0.012) (-0.068 - 0.081)	-0.0089, 0.039	0.210	0.16, 0.61 (0.25 - 0.53)
Copper (mg/kg dw)	3.78 (0.17) (3.27 - 4.57)	3.65 (0.17) (2.96 - 4.18)	0.14 (0.14) (-0.83 - 0.57)	-0.19, 0.46	0.361	2.00, 4.43 (2.52 - 4.93)
Iron (mg/kg dw)	48.73 (4.28) (40.55 - 69.61)	54.01 (4.24) (41.65 - 77.74)	-5.28 (2.89) (-20.41 - 14.87)	-11.85, 1.30	0.102	23.39, 86.23 (39.16 - 77.92)
Magnesium (g/100g dw)	0.37 (0.014) (0.31 - 0.42)	0.36 (0.014) (0.31 - 0.42)	0.0048 (0.0070) (-0.032 - 0.043)	-0.011, 0.021	0.508	0.32, 0.43 (0.30 - 0.45)
Manganese (mg/kg dw)	41.44 (2.02) (35.28 - 51.55)	40.34 (1.99) (33.12 - 50.97)	1.10 (1.83) (-8.36 - 12.63)	-2.62, 4.82	0.551	14.85, 61.05 (25.00 - 54.11)

Table 5. Statistical Summary of Combined-Site Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Mineral						
Phosphorus (g/100g dw)	0.72 (0.042) (0.56 - 0.87)	0.72 (0.041) (0.56 - 0.93)	-0.0090 (0.022) (-0.095 - 0.16)	-0.055, 0.037	0.692	0.38, 1.06 (0.44 - 0.87)
Potassium (g/100g dw)	0.64 (0.053) (0.48 - 0.90)	0.64 (0.052) (0.53 - 0.81)	0.0016 (0.025) (-0.097 - 0.14)	-0.056, 0.060	0.951	0.39, 0.96 (0.50 - 0.92)
Zinc (mg/kg dw)	35.58 (1.78) (29.81 - 45.56)	33.01 (1.76) (28.46 - 40.66)	2.57 (1.83) (-4.50 - 11.44)	-1.66, 6.80	0.198	20.19, 48.23 (22.18 - 47.61)
Vitamin (mg/100g dw)						
Vitamin E (a-tocopherol)	11.06 (2.08) (1.30 - 16.55)	8.85 (2.08) (3.33 - 11.77)	2.21 (1.66) (-6.92 - 8.09)	-1.61, 6.03	0.218	3.88, 17.28 (2.62 - 14.84)

[1]dw = dry weight; fw = fresh weight; FA = fatty acid.
[2]Test refers to MON 88302 (Herbicide-Treated).
[3]Mean (S.E.) = least-square mean (standard error).
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 6. Statistical Summary of Combined-Site Canola Seed Anti-nutrients for MON 88302 (Herbicide-Treated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Anti-nutrient						
Alkyl Glucosinolate (µmole/g dw)	3.68 (0.43) (1.19 - 5.87)	5.08 (0.42) (2.45 - 8.28)	-1.40 (0.59) (-6.11 - 1.43)	-2.69, -0.11	0.035	0, 29.02 (2.32 - 28.33)
Indolyl Glucosinolate (µmole/g dw)	3.50 (0.51) (0.49 - 5.76)	3.89 (0.50) (1.83 - 5.89)	-0.39 (0.45) (-3.05 - 2.83)	-1.42, 0.64	0.408	1.37, 6.62 (1.84 - 7.18)
Phytic Acid (% dw)	1.95 (0.18) (1.20 - 2.58)	2.11 (0.18) (1.46 - 2.77)	-0.16 (0.083) (-0.67 - 0.68)	-0.33, 0.010	0.064	0.70, 3.52 (1.10 - 2.71)
Sinapic Acid (% dw)	0.86 (0.12) (0.16 - 1.08)	0.88 (0.12) (0.65 - 0.97)	-0.023 (0.11) (-0.76 - 0.21)	-0.27, 0.22	0.837	0.57, 1.13 (0.48 - 0.99)
Total Glucosinolate (µmole/g dw)	7.35 (0.87) (1.73 - 11.42)	9.08 (0.86) (4.38 - 12.72)	-1.73 (1.01) (-9.21 - 3.58)	-4.06, 0.61	0.127	0, 32.20 (5.52 - 31.98)

[1]dw = dry weight.
[2]Test refers to MON 88302 (Herbicide-Treated).
[3]Mean (S.E.) = least-square mean (standard error).
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 7. Statistical Summary of Site MBNW Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Proximate (% dw)						
Ash	3.99 (0.12) (3.90 - 4.09)	3.84 (0.10) (3.66 - 4.03)	0.15 (0.16) (0.061 - 0.43)	-0.35, 0.66	0.409	3.32, 4.66 (2.98 - 4.52)
Carbohydrates	26.49 (0.40) (25.81 - 27.08)	26.02 (0.33) (25.81 - 26.35)	0.48 (0.48) (-0.16 - 1.27)	-1.07, 2.02	0.398	23.12, 30.77 (22.53 - 29.96)
Moisture (% fw)	4.72 (0.22) (4.37 - 5.07)	4.90 (0.18) (4.69 - 5.13)	-0.18 (0.28) (-0.32 - 0.20)	-1.08, 0.73	0.577	4.33, 6.91 (4.09 - 8.48)
Protein	22.36 (0.87) (21.02 - 23.70)	20.78 (0.71) (20.29 - 21.61)	1.58 (1.13) (-0.60 - 3.41)	-2.01, 5.16	0.256	17.20, 30.08 (18.68 - 28.32)
Total Fat	47.17 (0.66) (46.56 - 47.79)	49.35 (0.54) (48.89 - 49.93)	-2.18 (0.86) (-3.37 - -1.10)	-4.90, 0.55	0.084	39.65, 51.24 (40.71 - 50.26)
Fiber (% dw)						
Acid Detergent Fiber	14.40 (0.86) (13.27 - 15.06)	14.93 (0.71) (13.64 - 16.34)	-0.53 (0.97) (-1.76 - 1.42)	-3.61, 2.54	0.619	6.95, 23.92 (9.75 - 21.22)

Table 7. Statistical Summary of Site MBNW Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fiber (% dw)						
Neutral Detergent Fiber	16.98 (1.05) (15.38 - 18.30)	17.16 (0.87) (16.68 - 17.45)	-0.18 (1.29) (-2.07 - 1.62)	-4.27, 3.91	0.896	10.07, 25.94 (10.93 - 22.75)
Total Dietary Fiber	18.88 (2.24) (18.01 - 18.30)	19.30 (1.87) (15.21 - 22.29)	-0.41 (2.51) (-4.27 - 3.09)	-8.41, 7.58	0.879	13.97, 24.85 (12.64 - 26.47)
Amino Acid (% dw)						
Alanine	1.01 (0.037) (0.95 - 1.06)	0.95 (0.030) (0.93 - 0.98)	0.060 (0.048) (-0.027 - 0.13)	-0.093, 0.21	0.298	0.77, 1.34 (0.87 - 1.27)
Arginine	1.44 (0.060) (1.35 - 1.54)	1.37 (0.049) (1.36 - 1.38)	0.073 (0.078) (-0.036 - 0.18)	-0.17, 0.32	0.415	1.10, 1.93 (1.23 - 1.96)
Aspartic Acid	1.75 (0.081) (1.62 - 1.88)	1.58 (0.066) (1.55 - 1.64)	0.17 (0.10) (-0.016 - 0.33)	-0.16, 0.50	0.207	1.33, 2.12 (1.42 - 2.23)
Cystine	0.56 (0.029) (0.54 - 0.57)	0.51 (0.023) (0.50 - 0.54)	0.042 (0.037) (-0.00076 - 0.071)	-0.075, 0.16	0.333	0.38, 0.83 (0.45 - 0.79)

Table 7. Statistical Summary of Site MBNW Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Glutamic Acid	3.92 (0.18) (3.66 - 4.17)	3.71 (0.14) (3.64 - 3.84)	0.21 (0.23) (-0.18 - 0.53)	-0.52, 0.93	0.429	2.73, 5.89 (3.26 - 5.43)
Glycine	1.15 (0.039) (1.10 - 1.21)	1.09 (0.032) (1.06 - 1.12)	0.068 (0.051) (-0.025 - 0.15)	-0.094, 0.23	0.273	0.96, 1.47 (1.01 - 1.50)
Histidine	0.61 (0.024) (0.58 - 0.64)	0.58 (0.019) (0.57 - 0.60)	0.027 (0.031) (-0.025 - 0.070)	-0.070, 0.12	0.438	0.47, 0.86 (0.54 - 0.80)
Isoleucine	0.94 (0.039) (0.88 - 0.99)	0.86 (0.032) (0.82 - 0.90)	0.075 (0.050) (-0.022 - 0.17)	-0.086, 0.24	0.234	0.70, 1.22 (0.78 - 1.15)
Leucine	1.63 (0.062) (1.54 - 1.73)	1.51 (0.051) (1.48 - 1.56)	0.12 (0.080) (-0.026 - 0.25)	-0.14, 0.37	0.237	1.21, 2.18 (1.36 - 2.07)
Lysine	1.33 (0.049) (1.28 - 1.39)	1.28 (0.040) (1.25 - 1.32)	0.057 (0.063) (-0.046 - 0.14)	-0.14, 0.26	0.427	1.02, 1.90 (1.20 - 1.68)

Table 7. Statistical Summary of Site MBNW Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Methionine	0.44 (0.017) (0.42 - 0.47)	0.42 (0.014) (0.40 - 0.44)	0.025 (0.023) (-0.017 - 0.052)	-0.047, 0.096	0.356	0.30, 0.65 (0.36 - 0.57)
Phenylalanine	0.99 (0.035) (0.93 - 1.04)	0.91 (0.029) (0.90 - 0.93)	0.080 (0.045) (0.0063 - 0.15)	-0.064, 0.22	0.174	0.77, 1.26 (0.84 - 1.25)
Proline	1.33 (0.054) (1.23 - 1.43)	1.24 (0.044) (1.20 - 1.29)	0.093 (0.070) (-0.057 - 0.23)	-0.13, 0.32	0.277	0.90, 2.01 (1.12 - 1.78)
Serine	1.03 (0.041) (0.97 - 1.09)	0.95 (0.033) (0.94 - 0.97)	0.075 (0.052) (0.00092 - 0.13)	-0.091, 0.24	0.245	0.81, 1.32 (0.88 - 1.30)
Threonine	0.99 (0.031) (0.94 - 1.03)	0.94 (0.025) (0.92 - 0.96)	0.053 (0.040) (-0.021 - 0.11)	-0.075, 0.18	0.279	0.82, 1.20 (0.84 - 1.22)
Tryptophan	0.25 (0.024) (0.23 - 0.27)	0.21 (0.020) (0.19 - 0.25)	0.038 (0.032) (-0.019 - 0.082)	-0.063, 0.14	0.318	0.13, 0.35 (0.17 - 0.32)

Table 7. Statistical Summary of Site MBNW Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Tyrosine	0.68 (0.021) (0.64 - 0.71)	0.63 (0.017) (0.63 - 0.64)	0.047 (0.026) (0.0083 - 0.083)	-0.037, 0.13	0.172	0.57, 0.81 (0.60 - 0.84)
Valine	1.20 (0.050) (1.13 - 1.26)	1.10 (0.041) (1.05 - 1.15)	0.098 (0.065) (-0.025 - 0.22)	-0.11, 0.30	0.228	0.92, 1.55 (1.01 - 1.46)
Fatty Acid (% Total FA)						
16:0 Palmitic	4.10 (0.040) (4.09 - 4.10)	4.00 (0.033) (3.97 - 4.06)	0.095 (0.052) (0.041 - 0.12)	-0.071, 0.26	0.165	2.84, 5.26 (3.55 - 4.69)
16:1 Palmitoleic	0.21 (0.0044) (0.21 - 0.21)	0.23 (0.0036) (0.22 - 0.23)	-0.013 (0.0053) (-0.021 - -0.0024)	-0.030, 0.0037	0.089	0.17, 0.30 (0.19 - 0.27)
18:0 Stearic	1.77 (0.056) (1.75 - 1.79)	1.97 (0.045) (1.93 - 2.01)	-0.20 (0.072) (-0.18 - -0.17)	-0.43, 0.032	0.071	0.90, 3.05 (1.50 - 2.64)
18:1 Oleic	62.98 (0.27) (62.68 - 63.28)	65.71 (0.22) (65.55 - 65.93)	-2.72 (0.35) (-2.86 - -2.65)	-3.84, -1.60	0.004	56.13, 70.69 (57.86 - 68.53)

Table 7. Statistical Summary of Site MBNW Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fatty Acid (% Total FA)						
18:2 Linoleic	19.26 (0.23) (19.06 - 19.46)	17.89 (0.19) (17.70 - 18.17)	1.36 (0.30) (1.29 - 1.35)	0.42, 2.31	0.019	12.60, 24.49 (14.12 - 22.57)
18:3 Linolenic	9.50 (0.13) (9.49 - 9.52)	8.12 (0.10) (7.98 - 8.25)	1.38 (0.17) (1.37 - 1.53)	0.86, 1.91	0.003	6.96, 11.73 (7.99 - 10.94)
20:0 Arachidic	0.54 (0.014) (0.53 - 0.54)	0.56 (0.012) (0.54 - 0.58)	-0.028 (0.018) (-0.054 - - 0.00023)	-0.086, 0.030	0.223	0.45, 0.80 (0.53 - 0.71)
20:1 Eicosenoic	1.12 (0.029) (1.09 - 1.14)	1.03 (0.024) (1.00 - 1.08)	0.087 (0.038) (0.011 - 0.15)	-0.033, 0.21	0.104	0.83, 1.68 (1.04 - 1.56)
22:0 Behenic	0.25 (0.0082) (0.24 - 0.26)	0.26 (0.0067) (0.24 - 0.27)	-0.0044 (0.011) (-0.028 - 0.016)	-0.038, 0.029	0.704	0.19, 0.43 (0.27 - 0.38)
24:0 Lignoceric	0.15 (0.0075) (0.13 - 0.17)	0.15 (0.0061) (0.15 - 0.15)	0.0013 (0.0097) (-0.017 - 0.018)	-0.030, 0.032	0.898	0.033, 0.25 (0.044 - 0.21)

Table 7. Statistical Summary of Site MBNW Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fatty Acid (% Total FA)						
24:1 Nervonic	0.12 (0.038) (0.047 - 0.20)	0.090 (0.031) (0.046 - 0.12)	0.032 (0.049) (0.0012 - 0.081)	-0.13, 0.19	0.563	0.041, 0.18 (0.044 - 0.20)
Mineral						
Calcium (g/100g dw)	0.47 (0.015) (0.46 - 0.48)	0.44 (0.012) (0.43 - 0.46)	0.028 (0.019) (0.030 - 0.046)	-0.032, 0.089	0.234	0.16, 0.61 (0.25 - 0.53)
Copper (mg/kg dw)	3.55 (0.056) (3.53 - 3.58)	3.41 (0.046) (3.36 - 3.44)	0.15 (0.073) (0.10 - 0.22)	-0.085, 0.38	0.138	2.00, 4.43 (2.52 - 4.93)
Iron (mg/kg dw)	43.96 (2.00) (42.77 - 44.77)	46.51 (1.66) (41.65 - 51.30)	-2.55 (2.27) (-6.53 - 1.12)	-9.78, 4.67	0.342	23.39, 86.23 (39.16 - 77.92)
Magnesium (g/100g dw)	0.33 (0.014) (0.32 - 0.34)	0.33 (0.012) (0.31 - 0.35)	-0.0010 (0.019) (-0.027 - 0.033)	-0.060, 0.058	0.959	0.32, 0.43 (0.30 - 0.45)
Manganese (mg/kg dw)	46.44 (2.40) (45.72 - 47.16)	39.54 (1.96) (37.35 - 41.11)	6.90 (3.10) (5.56 - 9.81)	-2.98, 16.78	0.112	14.85, 61.05 (25.00 - 54.11)

Table 7. Statistical Summary of Site MBNW Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Mineral						
Phosphorus (g/100g dw)	0.71 (0.058) (0.69 - 0.74)	0.72 (0.047) (0.61 - 0.79)	-0.0061 (0.074) (-0.10 - 0.12)	-0.24, 0.23	0.940	0.38, 1.06 (0.44 - 0.87)
Potassium (g/100g dw)	0.55 (0.014) (0.54 - 0.56)	0.56 (0.011) (0.54 - 0.58)	-0.016 (0.017) (-0.049 - 0.021)	-0.072, 0.040	0.427	0.39, 0.96 (0.50 - 0.92)
Zinc (mg/kg dw)	29.49 (1.54) (28.97 - 30.02)	30.24 (1.26) (28.46 - 32.84)	-0.75 (1.99) (-3.87 - 0.59)	-7.08, 5.57	0.730	20.19, 48.23 (22.18 - 47.61)
Vitamin (mg/100g dw)						
Vitamin E (a-tocopherol)	13.54 (0.45) (13.06 - 14.01)	9.36 (0.36) (8.89 - 10.15)	4.17 (0.58) (4.01 - 5.13)	2.34, 6.00	0.005	3.88, 17.28 (2.62 - 14.84)

[1]dw = dry weight; fw = fresh weight; FA = fatty acid.
[2]Test refers to MON 88302 (Untreated). These plants were not sprayed with herbicide, but received another conventional treatment as was done for the conventional control.
[3]Mean (S.E.) = least-square mean (standard error).
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 8. Statistical Summary of Site MBNW Canola Seed Anti-nutrients for MON 88302 (Untreated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Anti-nutrient						
Alkyl Glucosinolate (µmole/g dw)	3.96 (0.35) (3.82 - 4.15)	5.43 (0.31) (4.85 - 6.16)	-1.46 (0.34) (-2.01 - -1.03)	-2.54, -0.39	0.022	0, 29.02 (2.32 - 28.33)
Indolyl Glucosinolate (µmole/g dw)	3.59 (0.80) (3.01 - 4.17)	4.01 (0.65) (2.92 - 5.31)	-0.42 (1.03) (-1.14 - -0.80)	-3.71, 2.86	0.710	1.37, 6.62 (1.84 - 7.18)
Phytic Acid (% dw)	2.11 (0.24) (1.98 - 2.24)	2.27 (0.20) (1.77 - 2.56)	-0.16 (0.32) (-0.50 - 0.46)	-1.17, 0.84	0.642	0.70, 3.52 (1.10 - 2.71)
Sinapic Acid (% dw)	1.00 (0.015) (1.00 - 1.02)	0.92 (0.014) (0.92 - 0.94)	0.072 (0.011) (0.073 - 0.079)	0.037, 0.11	0.007	0.57, 1.13 (0.48 - 0.99)
Total Glucosinolate (µmole/g dw)	7.71 (1.07) (6.87 - 8.48)	9.61 (0.88) (8.44 - 11.56)	-1.91 (1.26) (-3.08 - -2.02)	-5.90, 2.09	0.226	0, 32.20 (5.52 - 31.98)

[1]dw = dry weight.
[2]Test refers to MON 88302 (Untreated). These plants were not sprayed with herbicide, but received another conventional treatment as was done for the conventional control.
[3]Mean (S.E.) = least-square mean (standard error).
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 9. Statistical Summary of Site MBNW Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	95% Confidence Interval	Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Proximate (% dw)						
Ash	3.98 (0.087) (3.72 - 4.10)	3.84 (0.10) (3.66 - 4.03)	0.14 (0.13) (0.076 - 0.41)	-0.28, 0.56	0.367	3.32, 4.66 (2.98 - 4.52)
Carbohydrates	27.18 (0.29) (26.75 - 28.02)	26.02 (0.33) (25.81 - 26.35)	1.16 (0.40) (1.08 - 1.67)	-0.13, 2.45	0.063	23.12, 30.77 (22.53 - 29.96)
Moisture (% fw)	5.26 (0.16) (4.99 - 5.56)	4.90 (0.18) (4.69 - 5.13)	0.36 (0.24) (0.12 - 0.87)	-0.39, 1.12	0.225	4.33, 6.91 (4.09 - 8.48)
Protein	21.00 (0.62) (19.68 - 22.64)	20.78 (0.71) (20.29 - 21.61)	0.22 (0.94) (-0.86 - 0.49)	-2.78, 3.22	0.830	17.20, 30.08 (18.68 - 28.32)
Total Fat	47.84 (0.47) (46.87 - 49.26)	49.35 (0.54) (48.89 - 49.93)	-1.51 (0.72) (-2.28 - -0.61)	-3.79, 0.77	0.125	39.65, 51.24 (40.71 - 50.26)
Fiber (% dw)						
Acid Detergent Fiber	16.26 (0.63) (15.05 - 17.66)	14.93 (0.71) (13.64 - 16.34)	1.32 (0.81) (0.019 - 3.09)	-1.25, 3.90	0.199	6.95, 23.92 (9.75 - 21.22)

Table 9. Statistical Summary of Site MBNW Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fiber (% dw)						
Neutral Detergent Fiber	19.08 (0.75) (17.16 - 21.36)	17.16 (0.87) (16.68 - 17.45)	1.92 (1.07) (-0.29 - 3.97)	-1.50, 5.33	0.171	10.07, 25.94 (10.93 - 22.75)
Total Dietary Fiber	22.93 (1.65) (19.17 - 27.81)	19.30 (1.87) (15.21 - 22.29)	3.63 (2.10) (-0.29 - 7.36)	-3.05, 10.32	0.181	13.97, 24.85 (12.64 - 26.47)
Amino Acid (% dw)						
Alanine	0.95 (0.026) (0.88 - 1.02)	0.95 (0.030) (0.93 - 0.98)	0.0018 (0.040) (-0.047 - 0.011)	-0.13, 0.13	0.967	0.77, 1.34 (0.87 - 1.27)
Arginine	1.35 (0.042) (1.23 - 1.44)	1.37 (0.049) (1.36 - 1.38)	-0.019 (0.065) (-0.12 - 0.025)	-0.23, 0.19	0.784	1.10, 1.93 (1.23 - 1.96)
Aspartic Acid	1.60 (0.057) (1.44 - 1.72)	1.58 (0.066) (1.55 - 1.64)	0.018 (0.087) (-0.10 - 0.090)	-0.26, 0.30	0.846	1.33, 2.12 (1.42 - 2.23)
Cystine	0.52 (0.020) (0.48 - 0.59)	0.51 (0.023) (0.50 - 0.54)	0.0048 (0.031) (-0.043 - 0.0090)	-0.093, 0.10	0.886	0.38, 0.83 (0.45 - 0.79)

Table 9. Statistical Summary of Site MBNW Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Glutamic Acid	3.68 (0.12) (3.37 - 4.02)	3.71 (0.14) (3.64 - 3.84)	-0.030 (0.19) (-0.27 - 0.043)	-0.64, 0.58	0.886	2.73, 5.89 (3.26 - 5.43)
Glycine	1.09 (0.028) (1.02 - 1.16)	1.09 (0.032) (1.06 - 1.12)	0.0020 (0.043) (-0.046 - 0.014)	-0.13, 0.14	0.965	0.96, 1.47 (1.01 - 1.50)
Histidine	0.59 (0.017) (0.55 - 0.64)	0.58 (0.019) (0.57 - 0.60)	0.0052 (0.026) (-0.023 - 0.0092)	-0.076, 0.087	0.851	0.47, 0.86 (0.54 - 0.80)
Isoleucine	0.87 (0.028) (0.81 - 0.94)	0.86 (0.032) (0.82 - 0.90)	0.010 (0.042) (-0.029 - 0.0069)	-0.12, 0.14	0.820	0.70, 1.22 (0.78 - 1.15)
Leucine	1.51 (0.044) (1.40 - 1.62)	1.51 (0.051) (1.48 - 1.56)	0.00056 (0.067) (-0.082 - 0.026)	-0.21, 0.21	0.993	1.21, 2.18 (1.36 - 2.07)
Lysine	1.31 (0.034) (1.22 - 1.41)	1.28 (0.040) (1.25 - 1.32)	0.033 (0.052) (-0.030 - 0.057)	-0.13, 0.20	0.573	1.02, 1.90 (1.20 - 1.68)

Table 9. Statistical Summary of Site MBNW Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Methionine	0.41 (0.012) (0.40 - 0.45)	0.42 (0.014) (0.40 - 0.44)	-0.0029 (0.019) (-0.038 - 0.0034)	-0.063, 0.057	0.887	0.30, 0.65 (0.36 - 0.57)
Phenylalanine	0.91 (0.025) (0.84 - 0.97)	0.91 (0.029) (0.90 - 0.93)	0.0043 (0.038) (-0.053 - 0.019)	-0.12, 0.12	0.916	0.77, 1.26 (0.84 - 1.25)
Proline	1.27 (0.038) (1.20 - 1.35)	1.24 (0.044) (1.20 - 1.29)	0.029 (0.058) (-0.030 - 0.036)	-0.16, 0.21	0.659	0.90, 2.01 (1.12 - 1.78)
Serine	0.96 (0.029) (0.87 - 1.03)	0.95 (0.033) (0.94 - 0.97)	0.0032 (0.044) (-0.077 - 0.051)	-0.14, 0.14	0.945	0.81, 1.32 (0.88 - 1.30)
Threonine	0.94 (0.022) (0.88 - 0.98)	0.94 (0.025) (0.92 - 0.96)	0.0053 (0.034) (-0.044 - 0.058)	-0.10, 0.11	0.884	0.82, 1.20 (0.84 - 1.22)
Tryptophan	0.21 (0.017) (0.17 - 0.26)	0.21 (0.020) (0.19 - 0.25)	-0.0040 (0.026) (-0.037 - - 0.0025)	-0.088, 0.080	0.889	0.13, 0.35 (0.17 - 0.32)

Table 9. Statistical Summary of Site MBNW Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	95% Confidence Interval	Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Tyrosine	0.64 (0.015) (0.59 - 0.66)	0.63 (0.017) (0.63 - 0.64)	0.0046 (0.022) (-0.037 - 0.016)	-0.066, 0.075	0.850	0.57, 0.81 (0.60 - 0.84)
Valine	1.12 (0.036) (1.04 - 1.21)	1.10 (0.041) (1.05 - 1.15)	0.021 (0.054) (-0.032 - 0.014)	-0.15, 0.19	0.719	0.92, 1.55 (1.01 - 1.46)
Fatty Acid (% Total FA)						
16:0 Palmitic	4.10 (0.029) (4.02 - 4.16)	4.00 (0.033) (3.97 - 4.06)	0.10 (0.044) (0.0047 - 0.18)	-0.039, 0.24	0.105	2.84, 5.26 (3.55 - 4.69)
16:1 Palmitoleic	0.21 (0.0031) (0.20 - 0.21)	0.23 (0.0036) (0.22 - 0.23)	-0.022 (0.0044) (-0.028 - -0.015)	-0.036, -0.0081	0.015	0.17, 0.30 (0.19 - 0.27)
18:0 Stearic	1.73 (0.039) (1.64 - 1.87)	1.97 (0.045) (1.93 - 2.01)	-0.24 (0.060) (-0.35 - -0.059)	-0.43, -0.049	0.028	0.90, 3.05 (1.50 - 2.64)
18:1 Oleic	63.40 (0.19) (62.94 - 64.03)	65.71 (0.22) (65.55 - 65.93)	-2.30 (0.29) (-3.00 - -1.52)	-3.24, -1.37	0.004	56.13, 70.69 (57.86 - 68.53)

Table 9. Statistical Summary of Site MBNW Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fatty Acid (% Total FA)						
18:2 Linoleic	19.27 (0.16) (18.82 - 19.66)	17.89 (0.19) (17.70 - 18.17)	1.38 (0.25) (0.65 - 1.96)	0.59, 2.17	0.011	12.60, 24.49 (14.12 - 22.57)
18:3 Linolenic	9.19 (0.091) (8.88 - 9.42)	8.12 (0.10) (7.98 - 8.25)	1.08 (0.14) (0.76 - 1.43)	0.64, 1.52	0.004	6.96, 11.73 (7.99 - 10.94)
20:0 Arachidic	0.52 (0.010) (0.50 - 0.54)	0.56 (0.012) (0.54 - 0.58)	-0.042 (0.015) (-0.081 - - 0.0032)	-0.091, 0.0064	0.069	0.45, 0.80 (0.53 - 0.71)
20:1 Eicosenoic	1.08 (0.021) (1.06 - 1.15)	1.03 (0.024) (1.00 - 1.08)	0.055 (0.032) (-0.016 - 0.064)	-0.046, 0.16	0.180	0.83, 1.68 (1.04 - 1.56)
22:0 Behenic	0.25 (0.0058) (0.24 - 0.26)	0.26 (0.0067) (0.24 - 0.27)	-0.010 (0.0089) (-0.030 - 0.00017)	-0.038, 0.018	0.337	0.19, 0.43 (0.27 - 0.38)
24:0 Lignoceric	0.15 (0.0053) (0.14 - 0.16)	0.15 (0.0061) (0.15 - 0.15)	0.0020 (0.0081) (-0.0041 - 0.0063)	-0.024, 0.028	0.824	0.033, 0.25 (0.044 - 0.21)

Table 9. Statistical Summary of Site MBNW Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fatty Acid (% Total FA)						
24:1 Nervonic	0.096 (0.027) (0.046 - 0.12)	0.090 (0.031) (0.046 - 0.12)	0.0065 (0.041) (-0.069 - 0.072)	-0.13, 0.14	0.884	0.041, 0.18 (0.044 - 0.20)
Mineral						
Calcium (g/100g dw)	0.48 (0.010) (0.45 - 0.51)	0.44 (0.012) (0.43 - 0.46)	0.038 (0.016) (0.017 - 0.081)	-0.012, 0.089	0.095	0.16, 0.61 (0.25 - 0.53)
Copper (mg/kg dw)	3.72 (0.040) (3.61 - 3.83)	3.41 (0.046) (3.36 - 3.44)	0.32 (0.061) (0.22 - 0.40)	0.12, 0.51	0.013	2.00, 4.43 (2.52 - 4.93)
Iron (mg/kg dw)	42.22 (1.46) (40.55 - 43.60)	46.51 (1.66) (41.65 - 51.30)	-4.30 (1.90) (-8.99 - -1.10)	-10.33, 1.74	0.108	23.39, 86.23 (39.16 - 77.92)
Magnesium (g/100g dw)	0.34 (0.010) (0.31 - 0.35)	0.33 (0.012) (0.31 - 0.35)	0.0078 (0.016) (0.0036 - 0.039)	-0.042, 0.057	0.651	0.32, 0.43 (0.30 - 0.45)
Manganese (mg/kg dw)	39.62 (1.70) (35.28 - 43.84)	39.54 (1.96) (37.35 - 41.11)	0.078 (2.60) (-3.95 - 6.49)	-8.18, 8.34	0.977	14.85, 61.05 (25.00 - 54.11)

Table 9. Statistical Summary of Site MBNW Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Mineral						
Phosphorus (g/100g dw)	0.72 (0.041) (0.60 - 0.78)	0.72 (0.047) (0.61 - 0.79)	0.0064 (0.062) (-0.034 - 0.16)	-0.19, 0.20	0.925	0.38, 1.06 (0.44 - 0.87)
Potassium (g/100g dw)	0.56 (0.0096) (0.54 - 0.57)	0.56 (0.011) (0.54 - 0.58)	-0.0054 (0.015) (-0.0098 - 0.021)	-0.052, 0.041	0.734	0.39, 0.96 (0.50 - 0.92)
Zinc (mg/kg dw)	34.91 (1.09) (32.40 - 37.15)	30.24 (1.26) (28.46 - 32.84)	4.66 (1.66) (-0.44 - 7.72)	-0.63, 9.95	0.067	20.19, 48.23 (22.18 - 47.61)
Vitamin (mg/100g dw)						
Vitamin E (a-tocopherol)	13.06 (0.31) (12.22 - 13.47)	9.36 (0.36) (8.89 - 10.15)	3.70 (0.48) (3.07 - 4.46)	2.17, 5.23	0.004	3.88, 17.28 (2.62 - 14.84)

[1]dw = dry weight; fw = fresh weight; FA = fatty acid.
[2]Test refers to MON 88302 (Herbicide-Treated).
[3]Mean (S.E.) = least-square mean (standard error).
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 10. Statistical Summary of Site MBNW Canola Seed Anti-nutrients for MON 88302 (Herbicide-Treated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Anti-nutrient						
Alkyl Glucosinolate (µmole/g dw)	5.19 (0.28) (4.47 - 5.87)	5.43 (0.31) (4.85 - 6.16)	-0.23 (0.28) (-0.38 - 0.091)	-1.13, 0.67	0.472	0, 29.02 (2.32 - 28.33)
Indolyl Glucosinolate (µmole/g dw)	4.23 (0.57) (2.92 - 5.75)	4.01 (0.65) (2.92 - 5.31)	0.22 (0.86) (-1.32 - 2.83)	-2.53, 2.97	0.817	1.37, 6.62 (1.84 - 7.18)
Phytic Acid (% dw)	2.06 (0.17) (1.73 - 2.46)	2.27 (0.20) (1.77 - 2.56)	-0.21 (0.26) (-0.67 - 0.68)	-1.05, 0.63	0.489	0.70, 3.52 (1.10 - 2.71)
Sinapic Acid (% dw)	1.02 (0.014) (0.99 - 1.06)	0.92 (0.014) (0.92 - 0.94)	0.095 (0.0093) (0.076 - 0.11)	0.066, 0.12	0.001	0.57, 1.13 (0.48 - 0.99)
Total Glucosinolate (µmole/g dw)	9.60 (0.77) (7.60 - 11.42)	9.61 (0.88) (8.44 - 11.56)	-0.014 (1.05) (-1.54 - 2.98)	-3.35, 3.32	0.990	0, 32.20 (5.52 - 31.98)

[1]dw = dry weight.
[2]Test refers to MON 88302 (Herbicide-Treated).
[3]Mean (S.E.) = least-square mean (standard error).
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 11. Statistical Summary of Site MBPL Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Proximate (% dw)						
Ash	4.30 (0.080) (4.21 - 4.38)	4.28 (0.080) (4.17 - 4.38)	0.021 (0.097) (-0.14 - 0.21)	-0.25, 0.29	0.838	3.32, 4.66 (2.98 - 4.52)
Carbohydrates	27.40 (0.56) (26.68 - 28.31)	28.11 (0.56) (26.87 - 28.73)	-0.71 (0.79) (-0.42 - -0.19)	-2.90, 1.48	0.418	23.12, 30.77 (22.53 - 29.96)
Moisture (% fw)	5.46 (0.14) (5.18 - 5.68)	5.24 (0.14) (4.93 - 5.47)	0.21 (0.20) (-0.29 - 0.35)	-0.34, 0.76	0.341	4.33, 6.91 (4.09 - 8.48)
Protein	23.90 (0.30) (23.64 - 24.26)	23.46 (0.30) (23.03 - 24.12)	0.44 (0.42) (0.14 - 0.62)	-0.73, 1.61	0.356	17.20, 30.08 (18.68 - 28.32)
Total Fat	44.35 (0.41) (43.79 - 44.77)	44.20 (0.41) (43.65 - 44.85)	0.15 (0.54) (-0.14 - -0.049)	-1.35, 1.64	0.798	39.65, 51.24 (40.71 - 50.26)
Fiber (% dw)						
Acid Detergent Fiber	16.07 (0.73) (14.98 - 17.18)	14.19 (0.73) (12.59 - 16.16)	1.88 (0.51) (1.01 - 2.39)	0.45, 3.30	0.021	6.95, 23.92 (9.75 - 21.22)

Table 11. Statistical Summary of Site MBPL Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fiber (% dw)						
Neutral Detergent Fiber	18.02 (0.57) (16.98 - 18.87)	16.87 (0.57) (15.44 - 18.06)	1.15 (0.73) (0.81 - 1.53)	-0.87, 3.17	0.188	10.07, 25.94 (10.93 - 22.75)
Total Dietary Fiber	19.61 (1.50) (17.93 - 20.78)	17.91 (1.50) (14.58 - 20.42)	1.70 (2.13) (-2.49 - 6.20)	-4.20, 7.60	0.468	13.97, 24.85 (12.64 - 26.47)
Amino Acid (% dw)						
Alanine	1.07 (0.015) (1.05 - 1.10)	1.04 (0.015) (1.02 - 1.09)	0.024 (0.022) (0.0072 - 0.029)	-0.036, 0.085	0.325	0.77, 1.34 (0.87 - 1.27)
Arginine	1.58 (0.039) (1.53 - 1.62)	1.54 (0.039) (1.48 - 1.65)	0.039 (0.055) (-0.058 - 0.037)	-0.11, 0.19	0.518	1.10, 1.93 (1.23 - 1.96)
Aspartic Acid	1.84 (0.027) (1.80 - 1.90)	1.79 (0.027) (1.73 - 1.85)	0.046 (0.032) (0.017 - 0.047)	-0.043, 0.14	0.222	1.33, 2.12 (1.42 - 2.23)
Cystine	0.55 (0.019) (0.54 - 0.57)	0.57 (0.019) (0.53 - 0.60)	-0.014 (0.026) (-0.031 - 0.017)	-0.088, 0.059	0.618	0.38, 0.83 (0.45 - 0.79)

Table 11. Statistical Summary of Site MBPL Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	95% Confidence Interval	Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Glutamic Acid	4.28 (0.097) (4.21 - 4.40)	4.24 (0.097) (4.05 - 4.53)	0.037 (0.14) (-0.13 - 0.16)	-0.34, 0.42	0.799	2.73, 5.89 (3.26 - 5.43)
Glycine	1.24 (0.015) (1.21 - 1.27)	1.21 (0.015) (1.19 - 1.26)	0.023 (0.022) (0.0067 - 0.015)	-0.037, 0.084	0.339	0.96, 1.47 (1.01 - 1.50)
Histidine	0.65 (0.011) (0.64 - 0.67)	0.65 (0.011) (0.62 - 0.68)	0.0095 (0.016) (-0.0063 - 0.019)	-0.035, 0.054	0.582	0.47, 0.86 (0.54 - 0.80)
Isoleucine	0.99 (0.012) (0.97 - 1.00)	0.98 (0.012) (0.96 - 1.00)	0.0075 (0.017) (-0.0073 - - 0.0017)	-0.041, 0.056	0.689	0.70, 1.22 (0.78 - 1.15)
Leucine	1.74 (0.024) (1.71 - 1.78)	1.71 (0.024) (1.66 - 1.78)	0.032 (0.035) (0.0051 - 0.027)	-0.064, 0.13	0.409	1.21, 2.18 (1.36 - 2.07)
Lysine	1.42 (0.022) (1.40 - 1.44)	1.40 (0.022) (1.36 - 1.45)	0.017 (0.031) (-0.0044 - 0.037)	-0.068, 0.10	0.603	1.02, 1.90 (1.20 - 1.68)

Table 11. Statistical Summary of Site MBPL Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Methionine	0.46 (0.0095) (0.46 - 0.47)	0.47 (0.0095) (0.45 - 0.49)	-0.0064 (0.013) (-0.028 - 0.010)	-0.044, 0.031	0.661	0.30, 0.65 (0.36 - 0.57)
Phenylalanine	1.05 (0.013) (1.03 - 1.09)	1.03 (0.013) (1.01 - 1.07)	0.021 (0.018) (0.018 - 0.018)	-0.029, 0.071	0.306	0.77, 1.26 (0.84 - 1.25)
Proline	1.38 (0.038) (1.35 - 1.41)	1.36 (0.038) (1.30 - 1.45)	0.017 (0.054) (-0.068 - 0.11)	-0.13, 0.17	0.766	0.90, 2.01 (1.12 - 1.78)
Serine	1.10 (0.018) (1.07 - 1.14)	1.07 (0.018) (1.04 - 1.12)	0.029 (0.020) (0.018 - 0.044)	-0.027, 0.085	0.223	0.81, 1.32 (0.88 - 1.30)
Threonine	1.06 (0.015) (1.03 - 1.10)	1.02 (0.015) (0.99 - 1.07)	0.034 (0.017) (0.018 - 0.028)	-0.014, 0.082	0.123	0.82, 1.20 (0.84 - 1.22)
Tryptophan	0.24 (0.0087) (0.22 - 0.26)	0.26 (0.0087) (0.25 - 0.27)	-0.016 (0.012) (-0.048 - 0.019)	-0.050, 0.018	0.270	0.13, 0.35 (0.17 - 0.32)

Table 11. Statistical Summary of Site MBPL Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Tyrosine	0.72 (0.0069) (0.71 - 0.75)	0.71 (0.0069) (0.69 - 0.73)	0.019 (0.0058) (0.011 - 0.020)	0.0032, 0.035	0.028	0.57, 0.81 (0.60 - 0.84)
Valine	1.26 (0.016) (1.24 - 1.27)	1.25 (0.016) (1.23 - 1.27)	0.0098 (0.022) (-0.014 - 0.0046)	-0.051, 0.071	0.679	0.92, 1.55 (1.01 - 1.46)
Fatty Acid (% Total FA)						
16:0 Palmitic	4.40 (0.035) (4.37 - 4.43)	4.34 (0.035) (4.23 - 4.41)	0.063 (0.050) (0.014 - 0.18)	-0.076, 0.20	0.276	2.84, 5.26 (3.55 - 4.69)
16:1 Palmitoleic	0.23 (0.0040) (0.23 - 0.24)	0.25 (0.0040) (0.24 - 0.26)	-0.019 (0.0057) (-0.024 - -0.0012)	-0.035, -0.0030	0.029	0.17, 0.30 (0.19 - 0.27)
18:0 Stearic	1.61 (0.026) (1.56 - 1.64)	1.87 (0.026) (1.79 - 1.93)	-0.26 (0.030) (-0.29 - -0.18)	-0.34, -0.17	0.001	0.90, 3.05 (1.50 - 2.64)
18:1 Oleic	61.50 (0.13) (61.34 - 61.68)	64.30 (0.13) (64.19 - 64.56)	-2.79 (0.14) (-2.92 - -2.51)	-3.19, -2.40	<0.001	56.13, 70.69 (57.86 - 68.53)

Table 11. Statistical Summary of Site MBPL Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fatty Acid (% Total FA)						
18:2 Linoleic	20.71 (0.099) (20.61 - 20.81)	19.18 (0.099) (19.01 - 19.26)	1.53 (0.12) (1.41 - 1.51)	1.20, 1.86	<0.001	12.60, 24.49 (14.12 - 22.57)
18:3 Linolenic	9.26 (0.091) (9.15 - 9.44)	7.74 (0.091) (7.52 - 7.92)	1.52 (0.082) (1.44 - 1.48)	1.29, 1.74	<0.001	6.96, 11.73 (7.99 - 10.94)
20:0 Arachidic	0.54 (0.0049) (0.54 - 0.55)	0.60 (0.0049) (0.59 - 0.61)	-0.056 (0.0047) (-0.063 - -0.044)	-0.069, -0.042	<0.001	0.45, 0.80 (0.53 - 0.71)
20:1 Eicosenoic	1.13 (0.0068) (1.13 - 1.14)	1.08 (0.0068) (1.06 - 1.09)	0.053 (0.0096) (0.046 - 0.068)	0.027, 0.080	0.005	0.83, 1.68 (1.04 - 1.56)
22:0 Behenic	0.27 (0.0032) (0.27 - 0.28)	0.30 (0.0032) (0.29 - 0.31)	-0.030 (0.0042) (-0.038 - -0.019)	-0.042, -0.018	0.002	0.19, 0.43 (0.27 - 0.38)
24:0 Lignoceric	0.17 (0.0054) (0.16 - 0.19)	0.19 (0.0054) (0.18 - 0.19)	-0.015 (0.0073) (-0.021 - 0.0053)	-0.035, 0.0054	0.110	0.033, 0.25 (0.044 - 0.21)

Table 11. Statistical Summary of Site MBPL Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	95% Confidence Interval	Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fatty Acid (% Total FA)						
24:1 Nervonic	0.13 (0.0076) (0.11 - 0.15)	0.16 (0.0076) (0.15 - 0.17)	-0.027 (0.011) (-0.057 - 0.0065)	-0.057, 0.0031	0.067	0.041, 0.18 (0.044 - 0.20)
Mineral						
Calcium (g/100g dw)	0.36 (0.0059) (0.35 - 0.37)	0.34 (0.0059) (0.32 - 0.34)	0.027 (0.0083) (0.025 - 0.045)	0.0037, 0.050	0.032	0.16, 0.61 (0.25 - 0.53)
Copper (mg/kg dw)	3.46 (0.094) (3.38 - 3.59)	3.97 (0.094) (3.68 - 4.18)	-0.52 (0.13) (-0.65 - -0.096)	-0.89, -0.15	0.018	2.00, 4.43 (2.52 - 4.93)
Iron (mg/kg dw)	45.24 (0.73) (44.21 - 46.09)	51.01 (0.73) (49.75 - 52.89)	-5.77 (0.98) (-6.81 - -5.54)	-8.48, -3.05	0.004	23.39, 86.23 (39.16 - 77.92)
Magnesium (g/100g dw)	0.42 (0.0081) (0.40 - 0.43)	0.41 (0.0081) (0.40 - 0.42)	0.0066 (0.011) (-0.0012 - 0.013)	-0.025, 0.038	0.596	0.32, 0.43 (0.30 - 0.45)
Manganese (mg/kg dw)	38.99 (1.03) (37.96 - 40.43)	37.78 (1.03) (36.29 - 39.99)	1.21 (1.46) (-1.39 - 0.88)	-2.85, 5.27	0.454	14.85, 61.05 (25.00 - 54.11)

Table 11. Statistical Summary of Site MBPL Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Mineral						
Phosphorus (g/100g dw)	0.82 (0.011) (0.80 - 0.84)	0.81 (0.011) (0.80 - 0.82)	0.0089 (0.015) (-0.0099 - 0.019)	-0.032, 0.050	0.582	0.38, 1.06 (0.44 - 0.87)
Potassium (g/100g dw)	0.73 (0.027) (0.67 - 0.79)	0.77 (0.027) (0.77 - 0.81)	-0.039 (0.022) (-0.065 - 0.0050)	-0.099, 0.021	0.142	0.39, 0.96 (0.50 - 0.92)
Zinc (mg/kg dw)	32.79 (0.56) (32.59 - 33.02)	33.88 (0.56) (32.82 - 35.76)	-1.09 (0.80) (-3.17 - -0.30)	-3.31, 1.13	0.244	20.19, 48.23 (22.18 - 47.61)
Vitamin (mg/100g dw)						
Vitamin E (a-tocopherol)	12.02 (0.27) (11.77 - 12.23)	7.63 (0.27) (7.50 - 7.72)	4.40 (0.39) (4.05 - 4.57)	3.32, 5.47	<0.001	3.88, 17.28 (2.62 - 14.84)

[1]dw = dry weight; fw = fresh weight; FA = fatty acid.
[2]Test refers to MON 88302 (Untreated). These plants were not sprayed with herbicide, but received another conventional treatment as was done for the conventional control.
[3]Mean (S.E.) = least-square mean (standard error).
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 12. Statistical Summary of Site MBPL Canola Seed Anti-nutrients for MON 88302 (Untreated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Anti-nutrient						
Alkyl Glucosinolate (µmole/g dw)	3.43 (0.74) (2.89 - 4.45)	5.03 (0.74) (3.06 - 6.50)	-1.60 (1.04) (-3.61 - 1.39)	-4.50, 1.30	0.200	0, 29.02 (2.32 - 28.33)
Indolyl Glucosinolate (µmole/g dw)	4.64 (0.79) (4.22 - 4.97)	4.29 (0.79) (3.26 - 5.89)	0.35 (1.02) (-1.28 - 1.71)	-2.47, 3.18	0.745	1.37, 6.62 (1.84 - 7.18)
Phytic Acid (% dw)	2.41 (0.076) (2.32 - 2.51)	2.39 (0.076) (2.35 - 2.41)	0.023 (0.11) (-0.092 - - 0.0017)	-0.28, 0.32	0.841	0.70, 3.52 (1.10 - 2.71)
Sinapic Acid (% dw)	0.96 (0.0090) (0.95 - 0.96)	0.86 (0.0090) (0.86 - 0.86)	0.092 (0.011) (0.086 - 0.093)	0.061, 0.12	0.001	0.57, 1.13 (0.48 - 0.99)
Total Glucosinolate (µmole/g dw)	8.25 (1.49) (7.30 - 9.54)	9.40 (1.49) (6.42 - 12.59)	-1.14 (1.98) (-4.98 - 3.12)	-6.64, 4.35	0.594	0, 32.20 (5.52 - 31.98)

[1]dw = dry weight.
[2]Test refers to MON 88302 (Untreated). These plants were not sprayed with herbicide, but received another conventional treatment as was done for the conventional control.
[3]Mean (S.E.) = least-square mean (standard error).
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 13. Statistical Summary of Site MBPL Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	95% Confidence Interval	Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Proximate (% dw)						
Ash	4.15 (0.070) (3.99 - 4.38)	4.28 (0.080) (4.17 - 4.38)	-0.14 (0.089) (-0.21 - 0.020)	-0.38, 0.11	0.201	3.32, 4.66 (2.98 - 4.52)
Carbohydrates	27.51 (0.48) (26.55 - 28.81)	28.11 (0.56) (26.87 - 28.73)	-0.59 (0.74) (-2.18 - 1.94)	-2.64, 1.45	0.466	23.12, 30.77 (22.53 - 29.96)
Moisture (% fw)	5.68 (0.12) (5.45 - 5.93)	5.24 (0.14) (4.93 - 5.47)	0.44 (0.19) (0.12 - 0.67)	-0.078, 0.95	0.077	4.33, 6.91 (4.09 - 8.48)
Protein	23.70 (0.26) (23.17 - 24.33)	23.46 (0.30) (23.03 - 24.12)	0.23 (0.40) (-0.95 - 1.30)	-0.87, 1.33	0.590	17.20, 30.08 (18.68 - 28.32)
Total Fat	44.66 (0.36) (43.96 - 45.72)	44.20 (0.41) (43.65 - 44.85)	0.46 (0.49) (-0.84 - 1.11)	-0.91, 1.83	0.405	39.65, 51.24 (40.71 - 50.26)
Fiber (% dw)						
Acid Detergent Fiber	16.75 (0.70) (15.17 - 18.19)	14.19 (0.73) (12.59 - 16.16)	2.55 (0.46) (2.03 - 3.57)	1.28, 3.83	0.005	6.95, 23.92 (9.75 - 21.22)

Table 13. Statistical Summary of Site MBPL Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fiber (% dw)						
Neutral Detergent Fiber	19.45 (0.50) (18.35 - 20.02)	16.87 (0.57) (15.44 - 18.06)	2.58 (0.66) (1.50 - 4.43)	0.74, 4.43	0.017	10.07, 25.94 (10.93 - 22.75)
Total Dietary Fiber	22.61 (1.30) (18.67 - 24.98)	17.91 (1.50) (14.58 - 20.42)	4.70 (1.99) (3.52 - 9.96)	-0.82, 10.23	0.077	13.97, 24.85 (12.64 - 26.47)
Amino Acid (% dw)						
Alanine	1.06 (0.013) (1.04 - 1.08)	1.04 (0.015) (1.02 - 1.09)	0.017 (0.020) (-0.049 - 0.059)	-0.040, 0.073	0.460	0.77, 1.34 (0.87 - 1.27)
Arginine	1.57 (0.033) (1.51 - 1.64)	1.54 (0.039) (1.48 - 1.65)	0.031 (0.051) (-0.14 - 0.15)	-0.11, 0.17	0.578	1.10, 1.93 (1.23 - 1.96)
Aspartic Acid	1.84 (0.024) (1.81 - 1.89)	1.79 (0.027) (1.73 - 1.85)	0.047 (0.029) (-0.023 - 0.086)	-0.034, 0.13	0.179	1.33, 2.12 (1.42 - 2.23)
Cystine	0.55 (0.016) (0.50 - 0.59)	0.57 (0.019) (0.53 - 0.60)	-0.013 (0.025) (-0.054 - 0.052)	-0.082, 0.056	0.625	0.38, 0.83 (0.45 - 0.79)

Table 13. Statistical Summary of Site MBPL Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	95% Confidence Interval	Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Glutamic Acid	4.26 (0.084) (4.15 - 4.41)	4.24 (0.097) (4.05 - 4.53)	0.017 (0.13) (-0.37 - 0.36)	-0.34, 0.37	0.903	2.73, 5.89 (3.26 - 5.43)
Glycine	1.23 (0.013) (1.21 - 1.24)	1.21 (0.015) (1.19 - 1.26)	0.013 (0.020) (-0.047 - 0.044)	-0.043, 0.070	0.542	0.96, 1.47 (1.01 - 1.50)
Histidine	0.65 (0.0098) (0.63 - 0.67)	0.65 (0.011) (0.62 - 0.68)	0.0039 (0.015) (-0.041 - 0.044)	-0.037, 0.045	0.806	0.47, 0.86 (0.54 - 0.80)
Isoleucine	0.99 (0.011) (0.95 - 1.01)	0.98 (0.012) (0.96 - 1.00)	0.0090 (0.016) (-0.050 - 0.034)	-0.036, 0.054	0.609	0.70, 1.22 (0.78 - 1.15)
Leucine	1.73 (0.021) (1.70 - 1.76)	1.71 (0.024) (1.66 - 1.78)	0.027 (0.032) (-0.076 - 0.086)	-0.063, 0.12	0.448	1.21, 2.18 (1.36 - 2.07)
Lysine	1.41 (0.019) (1.37 - 1.45)	1.40 (0.022) (1.36 - 1.45)	0.0064 (0.029) (-0.067 - 0.086)	-0.073, 0.086	0.833	1.02, 1.90 (1.20 - 1.68)

Table 13. Statistical Summary of Site MBPL Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Methionine	0.46 (0.0083) (0.43 - 0.48)	0.47 (0.0095) (0.45 - 0.49)	-0.0073 (0.013) (-0.024 - 0.030)	-0.042, 0.028	0.593	0.30, 0.65 (0.36 - 0.57)
Phenylalanine	1.05 (0.011) (1.04 - 1.05)	1.03 (0.013) (1.01 - 1.07)	0.014 (0.017) (-0.032 - 0.039)	-0.032, 0.060	0.443	0.77, 1.26 (0.84 - 1.25)
Proline	1.39 (0.033) (1.32 - 1.47)	1.36 (0.038) (1.30 - 1.45)	0.021 (0.050) (-0.12 - 0.17)	-0.12, 0.16	0.696	0.90, 2.01 (1.12 - 1.78)
Serine	1.08 (0.016) (1.05 - 1.09)	1.07 (0.018) (1.04 - 1.12)	0.012 (0.018) (-0.037 - 0.052)	-0.039, 0.063	0.559	0.81, 1.32 (0.88 - 1.30)
Threonine	1.06 (0.013) (1.04 - 1.06)	1.02 (0.015) (0.99 - 1.07)	0.031 (0.016) (-0.0054 - 0.065)	-0.013, 0.075	0.119	0.82, 1.20 (0.84 - 1.22)
Tryptophan	0.25 (0.0075) (0.24 - 0.25)	0.26 (0.0087) (0.25 - 0.27)	-0.011 (0.011) (-0.014 - - 0.0041)	-0.043, 0.021	0.388	0.13, 0.35 (0.17 - 0.32)

Table 13. Statistical Summary of Site MBPL Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	95% Confidence Interval	Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Tyrosine	0.72 (0.0065) (0.72 - 0.73)	0.71 (0.0069) (0.69 - 0.73)	0.017 (0.0052) (0.0078 - 0.028)	0.0030, 0.032	0.028	0.57, 0.81 (0.60 - 0.84)
Valine	1.26 (0.014) (1.21 - 1.29)	1.25 (0.016) (1.23 - 1.27)	0.016 (0.021) (-0.058 - 0.054)	-0.041, 0.074	0.474	0.92, 1.55 (1.01 - 1.46)
Fatty Acid (% Total FA)						
16:0 Palmitic	4.25 (0.031) (4.20 - 4.29)	4.34 (0.035) (4.23 - 4.41)	-0.090 (0.047) (-0.22 - 0.030)	-0.22, 0.040	0.126	2.84, 5.26 (3.55 - 4.69)
16:1 Palmitoleic	0.23 (0.0035) (0.22 - 0.23)	0.25 (0.0040) (0.24 - 0.26)	-0.026 (0.0053) (-0.031 - -0.015)	-0.040, -0.011	0.008	0.17, 0.30 (0.19 - 0.27)
18:0 Stearic	1.58 (0.023) (1.55 - 1.59)	1.87 (0.026) (1.79 - 1.93)	-0.29 (0.028) (-0.34 - -0.22)	-0.37, -0.22	<0.001	0.90, 3.05 (1.50 - 2.64)
18:1 Oleic	62.06 (0.11) (61.82 - 62.35)	64.30 (0.13) (64.19 - 64.56)	-2.24 (0.13) (-2.40 - -1.84)	-2.59, -1.88	<0.001	56.13, 70.69 (57.86 - 68.53)

Table 13. Statistical Summary of Site MBPL Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fatty Acid (% Total FA)						
18:2 Linoleic	20.43 (0.088) (20.13 - 20.66)	19.18 (0.099) (19.01 - 19.26)	1.25 (0.11) (0.92 - 1.41)	0.95, 1.55	<0.001	12.60, 24.49 (14.12 - 22.57)
18:3 Linolenic	9.28 (0.085) (9.12 - 9.43)	7.74 (0.091) (7.52 - 7.92)	1.54 (0.073) (1.35 - 1.67)	1.34, 1.74	<0.001	6.96, 11.73 (7.99 - 10.94)
20:0 Arachidic	0.53 (0.0046) (0.52 - 0.54)	0.60 (0.0049) (0.59 - 0.61)	-0.070 (0.0042) (-0.079 - -0.063)	-0.082, -0.059	<0.001	0.45, 0.80 (0.53 - 0.71)
20:1 Eicosenoic	1.09 (0.0059) (1.08 - 1.10)	1.08 (0.0068) (1.06 - 1.09)	0.011 (0.0089) (-0.013 - 0.042)	-0.014, 0.035	0.298	0.83, 1.68 (1.04 - 1.56)
22:0 Behenic	0.27 (0.0027) (0.26 - 0.27)	0.30 (0.0032) (0.29 - 0.31)	-0.040 (0.0039) (-0.047 - -0.030)	-0.050, -0.029	<0.001	0.19, 0.43 (0.27 - 0.38)
24:0 Lignoceric	0.16 (0.0046) (0.16 - 0.17)	0.19 (0.0054) (0.18 - 0.19)	-0.023 (0.0068) (-0.024 - -0.022)	-0.042, -0.0038	0.029	0.033, 0.25 (0.044 - 0.21)

Table 13. Statistical Summary of Site MBPL Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	95% Confidence Interval	Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fatty Acid (% Total FA)						
24:1 Nervonic	0.13 (0.0066) (0.12 - 0.13)	0.16 (0.0076) (0.15 - 0.17)	-0.033 (0.010) (-0.052 - -0.014)	-0.061, -0.0047	0.031	0.041, 0.18 (0.044 - 0.20)
Mineral						
Calcium (g/100g dw)	0.36 (0.0051) (0.35 - 0.37)	0.34 (0.0059) (0.32 - 0.34)	0.021 (0.0078) (0.0015 - 0.035)	-0.00057, 0.043	0.053	0.16, 0.61 (0.25 - 0.53)
Copper (mg/kg dw)	3.47 (0.082) (3.35 - 3.56)	3.97 (0.094) (3.68 - 4.18)	-0.50 (0.12) (-0.83 - -0.23)	-0.84, -0.15	0.016	2.00, 4.43 (2.52 - 4.93)
Iron (mg/kg dw)	44.13 (0.64) (42.80 - 45.09)	51.01 (0.73) (49.75 - 52.89)	-6.87 (0.90) (-9.20 - -4.80)	-9.38, -4.37	0.001	23.39, 86.23 (39.16 - 77.92)
Magnesium (g/100g dw)	0.41 (0.0070) (0.39 - 0.42)	0.41 (0.0081) (0.40 - 0.42)	-0.0029 (0.011) (-0.022 - 0.021)	-0.033, 0.027	0.797	0.32, 0.43 (0.30 - 0.45)
Manganese (mg/kg dw)	39.33 (0.90) (37.24 - 41.46)	37.78 (1.03) (36.29 - 39.99)	1.55 (1.37) (-1.82 - 4.38)	-2.25, 5.34	0.321	14.85, 61.05 (25.00 - 54.11)

Table 13. Statistical Summary of Site MBPL Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	95% Confidence Interval	Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Mineral						
Phosphorus (g/100g dw)	0.78 (0.0092) (0.75 - 0.80)	0.81 (0.011) (0.80 - 0.82)	-0.031 (0.014) (-0.033 - -0.0099)	-0.069, 0.0077	0.090	0.38, 1.06 (0.44 - 0.87)
Potassium (g/100g dw)	0.70 (0.025) (0.63 - 0.76)	0.77 (0.027) (0.77 - 0.81)	-0.068 (0.019) (-0.097 - -0.017)	-0.12, -0.015	0.023	0.39, 0.96 (0.50 - 0.92)
Zinc (mg/kg dw)	31.25 (0.49) (30.45 - 32.05)	33.88 (0.56) (32.82 - 35.76)	-2.63 (0.75) (-4.50 - -1.02)	-4.70, -0.56	0.024	20.19, 48.23 (22.18 - 47.61)
Vitamin (mg/100g dw)						
Vitamin E (a-tocopherol)	11.50 (0.24) (10.70 - 12.20)	7.63 (0.27) (7.50 - 7.72)	3.88 (0.36) (3.20 - 4.23)	2.87, 4.89	<0.001	3.88, 17.28 (2.62 - 14.84)

[1]dw = dry weight; fw = fresh weight; FA = fatty acid.
[2]Test refers to MON 88302 (Herbicide-Treated).
[3]Mean (S.E.) = least-square mean (standard error).
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 14. Statistical Summary of Site MBPL Canola Seed Anti-nutrients for MON 88302 (Herbicide-Treated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Anti-nutrient						
Alkyl Glucosinolate (µmole/g dw)	2.98 (0.64) (1.91 - 4.03)	5.03 (0.74) (3.06 - 6.50)	-2.05 (0.98) (-2.68 - -1.15)	-4.76, 0.66	0.103	0, 29.02 (2.32 - 28.33)
Indolyl Glucosinolate (µmole/g dw)	3.90 (0.69) (1.67 - 5.76)	4.29 (0.79) (3.26 - 5.89)	-0.39 (0.93) (-1.59 - 0.96)	-2.98, 2.20	0.697	1.37, 6.62 (1.84 - 7.18)
Phytic Acid (% dw)	2.36 (0.066) (2.19 - 2.58)	2.39 (0.076) (2.35 - 2.41)	-0.027 (0.10) (-0.15 - 0.17)	-0.31, 0.25	0.803	0.70, 3.52 (1.10 - 2.71)
Sinapic Acid (% dw)	0.97 (0.0080) (0.95 - 0.99)	0.86 (0.0090) (0.86 - 0.86)	0.10 (0.010) (0.085 - 0.12)	0.076, 0.13	<0.001	0.57, 1.13 (0.48 - 0.99)
Total Glucosinolate (µmole/g dw)	7.01 (1.30) (3.66 - 9.77)	9.40 (1.49) (6.42 - 12.59)	-2.39 (1.83) (-2.82 - -0.44)	-7.45, 2.68	0.261	0, 32.20 (5.52 - 31.98)

[1]dw = dry weight.
[2]Test refers to MON 88302 (Herbicide-Treated).
[3]Mean (S.E.) = least-square mean (standard error).
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 15. Statistical Summary of Site MNCA Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Proximate (% dw)						
Ash	4.25 (0.20) (4.14 - 4.33)	4.18 (0.20) (3.76 - 5.10)	0.072 (0.28) (-0.96 - 0.57)	-0.64, 0.78	0.806	3.32, 4.66 (2.98 - 4.52)
Carbohydrates	27.66 (0.30) (27.02 - 28.26)	25.99 (0.30) (25.57 - 26.55)	1.67 (0.43) (1.11 - 2.69)	0.57, 2.77	0.011	23.12, 30.77 (22.53 - 29.96)
Moisture (% fw)	6.54 (0.11) (6.38 - 6.72)	6.69 (0.11) (6.33 - 6.98)	-0.15 (0.15) (-0.60 - 0.39)	-0.55, 0.25	0.375	4.33, 6.91 (4.09 - 8.48)
Protein	22.58 (0.61) (20.83 - 23.98)	23.23 (0.61) (21.50 - 24.27)	-0.65 (0.74) (-2.47 - 0.63)	-2.54, 1.24	0.417	17.20, 30.08 (18.68 - 28.32)
Total Fat	45.52 (0.69) (43.57 - 47.32)	46.59 (0.69) (45.26 - 48.05)	-1.07 (0.41) (-2.05 - 0.21)	-2.12, -0.015	0.047	39.65, 51.24 (40.71 - 50.26)
Fiber (% dw)						
Acid Detergent Fiber	16.48 (0.75) (14.79 - 17.84)	17.66 (0.75) (16.11 - 18.71)	-1.18 (1.07) (-3.35 - 0.99)	-3.92, 1.56	0.319	6.95, 23.92 (9.75 - 21.22)

Table 15. Statistical Summary of Site MNCA Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	95% Confidence Interval	Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fiber (% dw)						
Neutral Detergent Fiber	17.52 (0.71) (15.84 - 19.35)	18.78 (0.71) (17.83 - 19.58)	-1.26 (1.00) (-3.74 - 1.09)	-3.83, 1.31	0.262	10.07, 25.94 (10.93 - 22.75)
Total Dietary Fiber	19.98 (1.35) (17.45 - 23.31)	19.75 (1.35) (17.40 - 23.00)	0.24 (1.90) (-5.55 - 5.90)	-4.66, 5.13	0.906	13.97, 24.85 (12.64 - 26.47)
Amino Acid (% dw)						
Alanine	1.01 (0.023) (0.95 - 1.06)	1.05 (0.023) (0.98 - 1.10)	-0.037 (0.030) (-0.13 - 0.023)	-0.11, 0.039	0.262	0.77, 1.34 (0.87 - 1.27)
Arginine	1.47 (0.048) (1.34 - 1.61)	1.53 (0.048) (1.40 - 1.65)	-0.056 (0.057) (-0.21 - 0.054)	-0.20, 0.091	0.373	1.10, 1.93 (1.23 - 1.96)
Aspartic Acid	1.63 (0.058) (1.50 - 1.77)	1.79 (0.058) (1.61 - 1.97)	-0.15 (0.075) (-0.39 - -0.0098)	-0.35, 0.040	0.097	1.33, 2.12 (1.42 - 2.23)
Cystine	0.59 (0.022) (0.53 - 0.65)	0.55 (0.022) (0.52 - 0.61)	0.037 (0.028) (-0.015 - 0.11)	-0.035, 0.11	0.245	0.38, 0.83 (0.45 - 0.79)

Table 15. Statistical Summary of Site MNCA Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Glutamic Acid	4.08 (0.13) (3.72 - 4.44)	4.25 (0.13) (3.98 - 4.45)	-0.17 (0.16) (-0.61 - 0.15)	-0.57, 0.24	0.330	2.73, 5.89 (3.26 - 5.43)
Glycine	1.16 (0.030) (1.09 - 1.22)	1.22 (0.030) (1.13 - 1.30)	-0.061 (0.040) (-0.19 - -0.0056)	-0.16, 0.043	0.192	0.96, 1.47 (1.01 - 1.50)
Histidine	0.64 (0.016) (0.60 - 0.68)	0.65 (0.016) (0.61 - 0.67)	-0.0082 (0.020) (-0.067 - 0.037)	-0.060, 0.043	0.698	0.47, 0.86 (0.54 - 0.80)
Isoleucine	0.92 (0.024) (0.87 - 0.96)	0.97 (0.024) (0.89 - 1.03)	-0.054 (0.028) (-0.15 - -0.017)	-0.13, 0.019	0.113	0.70, 1.22 (0.78 - 1.15)
Leucine	1.61 (0.045) (1.50 - 1.72)	1.70 (0.045) (1.58 - 1.80)	-0.094 (0.058) (-0.28 - 0.00092)	-0.24, 0.057	0.170	1.21, 2.18 (1.36 - 2.07)
Lysine	1.41 (0.029) (1.34 - 1.49)	1.40 (0.029) (1.35 - 1.44)	0.014 (0.033) (-0.071 - 0.10)	-0.071, 0.098	0.689	1.02, 1.90 (1.20 - 1.68)

Table 15. Statistical Summary of Site MNCA Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Methionine	0.45 (0.017) (0.39 - 0.50)	0.44 (0.017) (0.42 - 0.48)	0.015 (0.022) (-0.039 - 0.070)	-0.041, 0.072	0.521	0.30, 0.65 (0.36 - 0.57)
Phenylalanine	0.96 (0.026) (0.90 - 1.03)	1.02 (0.026) (0.94 - 1.08)	-0.061 (0.033) (-0.16 - -0.0069)	-0.15, 0.024	0.124	0.77, 1.26 (0.84 - 1.25)
Proline	1.39 (0.040) (1.30 - 1.48)	1.40 (0.040) (1.30 - 1.46)	-0.0074 (0.048) (-0.14 - 0.081)	-0.13, 0.12	0.883	0.90, 2.01 (1.12 - 1.78)
Serine	1.03 (0.033) (0.94 - 1.11)	1.08 (0.033) (1.02 - 1.16)	-0.050 (0.046) (-0.19 - 0.043)	-0.17, 0.068	0.323	0.81, 1.32 (0.88 - 1.30)
Threonine	1.00 (0.024) (0.92 - 1.06)	1.02 (0.024) (0.97 - 1.06)	-0.027 (0.028) (-0.098 - 0.028)	-0.10, 0.046	0.386	0.82, 1.20 (0.84 - 1.22)
Tryptophan	0.22 (0.017) (0.17 - 0.27)	0.24 (0.017) (0.22 - 0.27)	-0.018 (0.024) (-0.047 - 0.026)	-0.080, 0.043	0.476	0.13, 0.35 (0.17 - 0.32)

Table 15. Statistical Summary of Site MNCA Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Tyrosine	0.67 (0.017) (0.63 - 0.72)	0.71 (0.017) (0.66 - 0.75)	-0.040 (0.023) (-0.10 - 0.010)	-0.098, 0.018	0.137	0.57, 0.81 (0.60 - 0.84)
Valine	1.18 (0.027) (1.12 - 1.23)	1.24 (0.027) (1.15 - 1.31)	-0.061 (0.032) (-0.17 - -0.016)	-0.14, 0.021	0.115	0.92, 1.55 (1.01 - 1.46)
Fatty Acid (% Total FA)						
16:0 Palmitic	4.21 (0.045) (4.09 - 4.40)	4.14 (0.045) (4.07 - 4.19)	0.064 (0.056) (-0.038 - 0.20)	-0.079, 0.21	0.305	2.84, 5.26 (3.55 - 4.69)
16:1 Palmitoleic	0.21 (0.0026) (0.21 - 0.22)	0.24 (0.0026) (0.23 - 0.25)	-0.025 (0.0036) (-0.039 - -0.016)	-0.034, -0.016	<0.001	0.17, 0.30 (0.19 - 0.27)
18:0 Stearic	1.60 (0.038) (1.53 - 1.75)	1.86 (0.038) (1.78 - 1.92)	-0.25 (0.053) (-0.36 - -0.16)	-0.39, -0.12	0.004	0.90, 3.05 (1.50 - 2.64)
18:1 Oleic	62.62 (0.52) (61.81 - 64.85)	64.86 (0.52) (63.72 - 65.52)	-2.24 (0.63) (-3.62 - -0.43)	-3.87, -0.62	0.016	56.13, 70.69 (57.86 - 68.53)

Table 15. Statistical Summary of Site MNCA Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fatty Acid (% Total FA)						
18:2 Linoleic	20.01 (0.21) (19.87 - 20.22)	18.35 (0.21) (17.90 - 19.29)	1.65 (0.28) (0.76 - 2.32)	0.94, 2.37	0.001	12.60, 24.49 (14.12 - 22.57)
18:3 Linolenic	9.25 (0.50) (6.83 - 10.20)	8.40 (0.50) (8.16 - 8.64)	0.85 (0.69) (-1.49 - 1.72)	-0.93, 2.63	0.273	6.96, 11.73 (7.99 - 10.94)
20:0 Arachidic	0.53 (0.012) (0.51 - 0.57)	0.57 (0.012) (0.55 - 0.60)	-0.042 (0.016) (-0.092 - 0.0059)	-0.084, -0.00026	0.049	0.45, 0.80 (0.53 - 0.71)
20:1 Eicosenoic	1.12 (0.011) (1.08 - 1.14)	1.07 (0.011) (1.05 - 1.09)	0.056 (0.015) (-0.0059 - 0.085)	0.018, 0.094	0.013	0.83, 1.68 (1.04 - 1.56)
22:0 Behenic	0.27 (0.0049) (0.25 - 0.27)	0.27 (0.0049) (0.26 - 0.29)	-0.0043 (0.0069) (-0.035 - 0.014)	-0.022, 0.013	0.561	0.19, 0.43 (0.27 - 0.38)
24:0 Lignoceric	0.097 (0.029) (0.050 - 0.15)	0.14 (0.029) (0.049 - 0.19)	-0.043 (0.041) (-0.14 - 0.091)	-0.15, 0.062	0.337	0.033, 0.25 (0.044 - 0.21)

Table 15. Statistical Summary of Site MNCA Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fatty Acid (% Total FA)						
24:1 Nervonic	0.088 (0.021) (0.050 - 0.13)	0.099 (0.021) (0.049 - 0.12)	-0.011 (0.030) (-0.070 - 0.073)	-0.088, 0.066	0.723	0.041, 0.18 (0.044 - 0.20)
Mineral						
Calcium (g/100g dw)	0.49 (0.014) (0.46 - 0.53)	0.45 (0.014) (0.42 - 0.49)	0.042 (0.020) (0.00026 - 0.11)	-0.0093, 0.094	0.088	0.16, 0.61 (0.25 - 0.53)
Copper (mg/kg dw)	4.53 (0.064) (4.38 - 4.66)	4.11 (0.064) (4.06 - 4.18)	0.41 (0.085) (0.33 - 0.55)	0.19, 0.63	0.004	2.00, 4.43 (2.52 - 4.93)
Iron (mg/kg dw)	42.88 (1.53) (40.73 - 46.89)	50.64 (1.53) (46.23 - 54.03)	-7.76 (1.70) (-13.30 - -5.32)	-12.13, -3.38	0.006	23.39, 86.23 (39.16 - 77.92)
Magnesium (g/100g dw)	0.38 (0.0067) (0.36 - 0.39)	0.37 (0.0067) (0.36 - 0.38)	0.011 (0.0068) (-0.0049 - 0.024)	-0.0061, 0.029	0.154	0.32, 0.43 (0.30 - 0.45)
Manganese (mg/kg dw)	42.51 (2.32) (37.71 - 49.57)	40.94 (2.32) (33.70 - 46.19)	1.56 (3.28) (-7.27 - 15.86)	-6.86, 9.99	0.653	14.85, 61.05 (25.00 - 54.11)

Table 15. Statistical Summary of Site MNCA Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Mineral						
Phosphorus (g/100g dw)	0.77 (0.034) (0.74 - 0.79)	0.79 (0.034) (0.72 - 0.93)	-0.027 (0.040) (-0.14 - 0.028)	-0.13, 0.075	0.524	0.38, 1.06 (0.44 - 0.87)
Potassium (g/100g dw)	0.62 (0.023) (0.60 - 0.64)	0.64 (0.023) (0.60 - 0.72)	-0.017 (0.033) (-0.088 - 0.037)	-0.10, 0.067	0.628	0.39, 0.96 (0.50 - 0.92)
Zinc (mg/kg dw)	41.81 (2.41) (35.60 - 50.06)	35.29 (2.41) (32.63 - 36.66)	6.53 (2.87) (-1.03 - 14.83)	-0.86, 13.91	0.072	20.19, 48.23 (22.18 - 47.61)
Vitamin (mg/100g dw)						
Vitamin E (a-tocopherol)	14.36 (0.42) (13.70 - 15.54)	10.82 (0.42) (10.15 - 11.77)	3.54 (0.52) (1.93 - 4.91)	2.21, 4.87	0.001	3.88, 17.28 (2.62 - 14.84)

[1]dw = dry weight; fw = fresh weight; FA = fatty acid.
[2]Test refers to MON 88302 (Untreated). These plants were not sprayed with herbicide, but received another conventional treatment as was done for the conventional control.
[3]Mean (S.E.) = least-square mean (standard error).
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 16. Statistical Summary of Site MNCA Canola Seed Anti-nutrients for MON 88302 (Untreated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Anti-nutrient						
Alkyl Glucosinolate (µmole/g dw)	4.61 (0.54) (3.78 - 5.80)	4.88 (0.54) (2.92 - 6.16)	-0.27 (0.73) (-1.89 - 2.03)	-2.15, 1.61	0.726	0, 29.02 (2.32 - 28.33)
Indolyl Glucosinolate (µmole/g dw)	4.58 (0.45) (3.77 - 6.13)	4.35 (0.45) (3.28 - 5.66)	0.23 (0.64) (-1.62 - 2.85)	-1.41, 1.87	0.733	1.37, 6.62 (1.84 - 7.18)
Phytic Acid (% dw)	2.25 (0.10) (2.19 - 2.36)	2.36 (0.10) (2.15 - 2.77)	-0.11 (0.14) (-0.58 - 0.19)	-0.47, 0.25	0.479	0.70, 3.52 (1.10 - 2.71)
Sinapic Acid (% dw)	1.06 (0.014) (1.03 - 1.10)	0.96 (0.014) (0.94 - 0.97)	0.10 (0.014) (0.077 - 0.15)	0.066, 0.14	<0.001	0.57, 1.13 (0.48 - 0.99)
Total Glucosinolate (µmole/g dw)	9.45 (0.61) (8.14 - 10.39)	9.42 (0.61) (7.15 - 10.65)	0.034 (0.74) (-2.33 - 1.79)	-1.86, 1.93	0.965	0, 32.20 (5.52 - 31.98)

[1]dw = dry weight.
[2]Test refers to MON 88302 (Untreated). These plants were not sprayed with herbicide, but received another conventional treatment as was done for the conventional control.
[3]Mean (S.E.) = least-square mean (standard error).
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 17. Statistical Summary of Site MNCA Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Proximate (% dw)						
Ash	4.35 (0.23) (4.20 - 4.45)	4.18 (0.20) (3.76 - 5.10)	0.17 (0.30) (0.33 - 0.64)	-0.60, 0.94	0.591	3.32, 4.66 (2.98 - 4.52)
Carbohydrates	27.31 (0.35) (26.27 - 27.90)	25.99 (0.30) (25.57 - 26.55)	1.32 (0.46) (-0.29 - 1.92)	0.13, 2.51	0.035	23.12, 30.77 (22.53 - 29.96)
Moisture (% fw)	5.52 (0.13) (5.37 - 5.61)	6.69 (0.11) (6.33 - 6.98)	-1.17 (0.17) (-1.53 - -0.72)	-1.60, -0.74	<0.001	4.33, 6.91 (4.09 - 8.48)
Protein	22.00 (0.70) (21.51 - 22.03)	23.23 (0.61) (21.50 - 24.27)	-1.23 (0.81) (-2.29 - 0.53)	-3.30, 0.85	0.189	17.20, 30.08 (18.68 - 28.32)
Total Fat	46.04 (0.72) (45.76 - 47.55)	46.59 (0.69) (45.26 - 48.05)	-0.55 (0.46) (-0.78 - -0.21)	-1.72, 0.62	0.280	39.65, 51.24 (40.71 - 50.26)
Fiber (% dw)						
Acid Detergent Fiber	17.89 (0.87) (15.99 - 20.24)	17.66 (0.75) (16.11 - 18.71)	0.23 (1.15) (-2.71 - 2.09)	-2.73, 3.20	0.847	6.95, 23.92 (9.75 - 21.22)

Table 17. Statistical Summary of Site MNCA Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fiber (% dw)						
Neutral Detergent Fiber	19.55 (0.82) (17.90 - 21.19)	18.78 (0.71) (17.83 - 19.58)	0.76 (1.08) (-1.56 - 3.36)	-2.01, 3.54	0.511	10.07, 25.94 (10.93 - 22.75)
Total Dietary Fiber	20.18 (1.55) (16.91 - 22.24)	19.75 (1.35) (17.40 - 23.00)	0.44 (2.06) (-0.49 - 3.79)	-4.85, 5.72	0.839	13.97, 24.85 (12.64 - 26.47)
Amino Acid (% dw)						
Alanine	0.98 (0.027) (0.97 - 0.98)	1.05 (0.023) (0.98 - 1.10)	-0.070 (0.032) (-0.12 - -0.014)	-0.15, 0.014	0.084	0.77, 1.34 (0.87 - 1.27)
Arginine	1.40 (0.054) (1.38 - 1.39)	1.53 (0.048) (1.40 - 1.65)	-0.13 (0.063) (-0.27 - -0.010)	-0.29, 0.029	0.089	1.10, 1.93 (1.23 - 1.96)
Aspartic Acid	1.59 (0.067) (1.57 - 1.60)	1.79 (0.058) (1.61 - 1.97)	-0.20 (0.082) (-0.37 - -0.045)	-0.41, 0.0098	0.057	1.33, 2.12 (1.42 - 2.23)
Cystine	0.57 (0.025) (0.53 - 0.58)	0.55 (0.022) (0.52 - 0.61)	0.015 (0.031) (0.012 - 0.035)	-0.064, 0.094	0.650	0.38, 0.83 (0.45 - 0.79)

Table 17. Statistical Summary of Site MNCA Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Glutamic Acid	3.89 (0.15) (3.84 - 3.87)	4.25 (0.13) (3.98 - 4.45)	-0.36 (0.17) (-0.59 - -0.11)	-0.80, 0.083	0.091	2.73, 5.89 (3.26 - 5.43)
Glycine	1.12 (0.034) (1.11 - 1.12)	1.22 (0.030) (1.13 - 1.30)	-0.099 (0.044) (-0.18 - -0.0061)	-0.21, 0.014	0.073	0.96, 1.47 (1.01 - 1.50)
Histidine	0.62 (0.018) (0.61 - 0.62)	0.65 (0.016) (0.61 - 0.67)	-0.031 (0.022) (-0.058 - - 0.00063)	-0.087, 0.025	0.214	0.47, 0.86 (0.54 - 0.80)
Isoleucine	0.90 (0.027) (0.88 - 0.90)	0.97 (0.024) (0.89 - 1.03)	-0.076 (0.031) (-0.13 - -0.0068)	-0.16, 0.0044	0.059	0.70, 1.22 (0.78 - 1.15)
Leucine	1.56 (0.052) (1.55 - 1.55)	1.70 (0.045) (1.58 - 1.80)	-0.15 (0.064) (-0.25 - -0.034)	-0.31, 0.015	0.066	1.21, 2.18 (1.36 - 2.07)
Lysine	1.37 (0.032) (1.35 - 1.36)	1.40 (0.029) (1.35 - 1.44)	-0.033 (0.036) (-0.055 - - 0.0095)	-0.13, 0.059	0.397	1.02, 1.90 (1.20 - 1.68)

Table 17. Statistical Summary of Site MNCA Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	95% Confidence Interval	Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Methionine	0.44 (0.020) (0.43 - 0.45)	0.44 (0.017) (0.42 - 0.48)	0.0058 (0.024) (0.011 - 0.019)	-0.056, 0.067	0.819	0.30, 0.65 (0.36 - 0.57)
Phenylalanine	0.93 (0.030) (0.92 - 0.93)	1.02 (0.026) (0.94 - 1.08)	-0.089 (0.036) (-0.17 - -0.011)	-0.18, 0.0043	0.057	0.77, 1.26 (0.84 - 1.25)
Proline	1.36 (0.045) (1.29 - 1.39)	1.40 (0.040) (1.30 - 1.46)	-0.040 (0.053) (-0.16 - 0.076)	-0.18, 0.096	0.479	0.90, 2.01 (1.12 - 1.78)
Serine	0.98 (0.038) (0.98 - 0.99)	1.08 (0.033) (1.02 - 1.16)	-0.095 (0.050) (-0.17 - -0.037)	-0.22, 0.033	0.114	0.81, 1.32 (0.88 - 1.30)
Threonine	0.95 (0.027) (0.94 - 0.94)	1.02 (0.024) (0.97 - 1.06)	-0.073 (0.031) (-0.12 - -0.027)	-0.15, 0.0074	0.067	0.82, 1.20 (0.84 - 1.22)
Tryptophan	0.22 (0.020) (0.18 - 0.24)	0.24 (0.017) (0.22 - 0.27)	-0.022 (0.026) (-0.063 - 0.024)	-0.089, 0.044	0.426	0.13, 0.35 (0.17 - 0.32)

Table 17. Statistical Summary of Site MNCA Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Tyrosine	0.65 (0.019) (0.64 - 0.65)	0.71 (0.017) (0.66 - 0.75)	-0.061 (0.024) (-0.11 - -0.0055)	-0.12, 0.0017	0.054	0.57, 0.81 (0.60 - 0.84)
Valine	1.15 (0.031) (1.13 - 1.15)	1.24 (0.027) (1.15 - 1.31)	-0.091 (0.035) (-0.16 - -0.017)	-0.18, -0.00082	0.048	0.92, 1.55 (1.01 - 1.46)
Fatty Acid (% Total FA)						
16:0 Palmitic	4.27 (0.051) (4.27 - 4.28)	4.14 (0.045) (4.07 - 4.19)	0.13 (0.061) (0.087 - 0.21)	-0.029, 0.28	0.090	2.84, 5.26 (3.55 - 4.69)
16:1 Palmitoleic	0.21 (0.0030) (0.21 - 0.21)	0.24 (0.0026) (0.23 - 0.25)	-0.026 (0.0039) (-0.039 - -0.020)	-0.036, -0.016	0.001	0.17, 0.30 (0.19 - 0.27)
18:0 Stearic	1.67 (0.044) (1.65 - 1.71)	1.86 (0.038) (1.78 - 1.92)	-0.19 (0.057) (-0.26 - -0.074)	-0.33, -0.039	0.022	0.90, 3.05 (1.50 - 2.64)
18:1 Oleic	61.67 (0.59) (61.70 - 61.87)	64.86 (0.52) (63.72 - 65.52)	-3.19 (0.69) (-3.81 - -3.11)	-4.98, -1.41	0.005	56.13, 70.69 (57.86 - 68.53)

Table 17. Statistical Summary of Site MNCA Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fatty Acid (% Total FA)						
18:2 Linoleic	20.20 (0.24) (20.00 - 20.32)	18.35 (0.21) (17.90 - 19.29)	1.85 (0.30) (1.86 - 2.42)	1.07, 2.63	0.001	12.60, 24.49 (14.12 - 22.57)
18:3 Linolenic	9.79 (0.58) (9.76 - 9.79)	8.40 (0.50) (8.16 - 8.64)	1.39 (0.75) (1.31 - 1.60)	-0.54, 3.32	0.122	6.96, 11.73 (7.99 - 10.94)
20:0 Arachidic	0.53 (0.013) (0.52 - 0.54)	0.57 (0.012) (0.55 - 0.60)	-0.042 (0.018) (-0.081 - -0.019)	-0.088, 0.0027	0.060	0.45, 0.80 (0.53 - 0.71)
20:1 Eicosenoic	1.08 (0.012) (1.06 - 1.09)	1.07 (0.011) (1.05 - 1.09)	0.016 (0.016) (-0.024 - 0.041)	-0.025, 0.058	0.354	0.83, 1.68 (1.04 - 1.56)
22:0 Behenic	0.27 (0.0056) (0.27 - 0.28)	0.27 (0.0049) (0.26 - 0.29)	0.0022 (0.0074) (-0.021 - 0.016)	-0.017, 0.021	0.776	0.19, 0.43 (0.27 - 0.38)
24:0 Lignoceric	0.11 (0.033) (0.049 - 0.16)	0.14 (0.029) (0.049 - 0.19)	-0.032 (0.044) (-0.14 - 0.069)	-0.15, 0.081	0.499	0.033, 0.25 (0.044 - 0.21)

Table 17. Statistical Summary of Site MNCA Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fatty Acid (% Total FA)						
24:1 Nervonic	0.10 (0.025) (0.049 - 0.15)	0.099 (0.021) (0.049 - 0.12)	0.0042 (0.032) (-0.072 - 0.062)	-0.079, 0.088	0.902	0.041, 0.18 (0.044 - 0.20)
Mineral						
Calcium (g/100g dw)	0.47 (0.016) (0.46 - 0.47)	0.45 (0.014) (0.42 - 0.49)	0.018 (0.022) (-0.0037 - 0.053)	-0.038, 0.074	0.438	0.16, 0.61 (0.25 - 0.53)
Copper (mg/kg dw)	4.40 (0.074) (4.16 - 4.57)	4.11 (0.064) (4.06 - 4.18)	0.28 (0.093) (0.056 - 0.39)	0.046, 0.52	0.027	2.00, 4.43 (2.52 - 4.93)
Iron (mg/kg dw)	42.57 (1.72) (40.56 - 44.18)	50.64 (1.53) (46.23 - 54.03)	-8.07 (1.87) (-12.92 - -4.82)	-12.89, -3.25	0.007	23.39, 86.23 (39.16 - 77.92)
Magnesium (g/100g dw)	0.38 (0.0074) (0.36 - 0.40)	0.37 (0.0067) (0.36 - 0.38)	0.014 (0.0076) (0.0074 - 0.018)	-0.0049, 0.034	0.113	0.32, 0.43 (0.30 - 0.45)
Manganese (mg/kg dw)	38.70 (2.68) (37.83 - 39.93)	40.94 (2.32) (33.70 - 46.19)	-2.24 (3.54) (-8.36 - -2.11)	-11.34, 6.86	0.554	14.85, 61.05 (25.00 - 54.11)

Table 17. Statistical Summary of Site MNCA Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Mineral						
Phosphorus (g/100g dw)	0.81 (0.039) (0.74 - 0.87)	0.79 (0.034) (0.72 - 0.93)	0.022 (0.044) (-0.011 - 0.098)	-0.090, 0.13	0.633	0.38, 1.06 (0.44 - 0.87)
Potassium (g/100g dw)	0.65 (0.027) (0.58 - 0.70)	0.64 (0.023) (0.60 - 0.72)	0.012 (0.035) (-0.020 - 0.098)	-0.079, 0.10	0.746	0.39, 0.96 (0.50 - 0.92)
Zinc (mg/kg dw)	39.18 (2.73) (35.19 - 45.56)	35.29 (2.41) (32.63 - 36.66)	3.90 (3.15) (-1.44 - 10.33)	-4.21, 12.00	0.271	20.19, 48.23 (22.18 - 47.61)
Vitamin (mg/100g dw)						
Vitamin E (a-tocopherol)	13.39 (0.48) (12.58 - 14.62)	10.82 (0.42) (10.15 - 11.77)	2.57 (0.57) (2.18 - 3.99)	1.11, 4.03	0.006	3.88, 17.28 (2.62 - 14.84)

[1]dw = dry weight; fw = fresh weight; FA = fatty acid.
[2]Test refers to MON 88302 (Herbicide-Treated).
[3]Mean (S.E.) = least-square mean (standard error).
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 18. Statistical Summary of Site MNCA Canola Seed Anti-nutrients for MON 88302 (Herbicide-Treated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Anti-nutrient						
Alkyl Glucosinolate (µmole/g dw)	4.64 (0.62) (4.35 - 4.88)	4.88 (0.54) (2.92 - 6.16)	-0.24 (0.79) (-1.48 - 1.43)	-2.28, 1.80	0.775	0, 29.02 (2.32 - 28.33)
Indolyl Glucosinolate (µmole/g dw)	4.17 (0.52) (3.79 - 4.47)	4.35 (0.45) (3.28 - 5.66)	-0.19 (0.69) (-1.42 - 0.13)	-1.96, 1.59	0.798	1.37, 6.62 (1.84 - 7.18)
Phytic Acid (% dw)	2.28 (0.12) (2.14 - 2.47)	2.36 (0.10) (2.15 - 2.77)	-0.078 (0.15) (-0.011 - 0.12)	-0.47, 0.31	0.630	0.70, 3.52 (1.10 - 2.71)
Sinapic Acid (% dw)	1.06 (0.015) (1.02 - 1.08)	0.96 (0.014) (0.94 - 0.97)	0.10 (0.015) (0.082 - 0.12)	0.063, 0.14	0.001	0.57, 1.13 (0.48 - 0.99)
Total Glucosinolate (µmole/g dw)	9.08 (0.69) (8.35 - 9.36)	9.42 (0.61) (7.15 - 10.65)	-0.33 (0.81) (-1.29 - 1.19)	-2.41, 1.74	0.696	0, 32.20 (5.52 - 31.98)

[1]dw = dry weight.
[2]Test refers to MON 88302 (Herbicide-Treated).
[3]Mean (S.E.) = least-square mean (standard error).
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 19. Statistical Summary of Site NDVA Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Proximate (% dw)						
Ash	3.41 (0.22) (2.93 - 4.28)	3.25 (0.26) (3.20 - 3.35)	0.17 (0.34) (-0.27 - 1.08)	-0.91, 1.24	0.654	3.32, 4.66 (2.98 - 4.52)
Carbohydrates	26.44 (0.67) (26.05 - 26.88)	25.49 (0.78) (24.69 - 26.01)	0.95 (1.02) (0.30 - 1.35)	-2.31, 4.21	0.422	23.12, 30.77 (22.53 - 29.96)
Moisture (% fw)	5.91 (0.18) (5.51 - 6.11)	5.61 (0.20) (5.24 - 6.18)	0.30 (0.19) (-0.070 - 0.70)	-0.29, 0.89	0.204	4.33, 6.91 (4.09 - 8.48)
Protein	24.60 (0.53) (23.75 - 25.44)	26.12 (0.61) (25.33 - 27.02)	-1.51 (0.80) (-2.26 - 0.12)	-4.07, 1.05	0.156	17.20, 30.08 (18.68 - 28.32)
Total Fat	45.57 (0.31) (45.14 - 45.93)	45.17 (0.36) (44.77 - 45.78)	0.40 (0.47) (-0.64 - 0.93)	-1.11, 1.91	0.462	39.65, 51.24 (40.71 - 50.26)
Fiber (% dw)						
Acid Detergent Fiber	14.27 (0.27) (13.71 - 14.92)	15.22 (0.31) (14.88 - 15.35)	-0.95 (0.33) (-1.17 - -1.00)	-2.00, 0.089	0.061	6.95, 23.92 (9.75 - 21.22)

Table 19. Statistical Summary of Site NDVA Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fiber (% dw)						
Neutral Detergent Fiber	16.79 (0.58) (15.86 - 17.89)	17.74 (0.66) (17.16 - 18.65)	-0.95 (0.88) (-2.79 - 0.094)	-3.75, 1.85	0.358	10.07, 25.94 (10.93 - 22.75)
Total Dietary Fiber	18.65 (1.00) (16.93 - 19.91)	17.17 (1.15) (14.88 - 19.61)	1.48 (1.38) (-0.65 - 3.94)	-2.89, 5.86	0.359	13.97, 24.85 (12.64 - 26.47)
Amino Acid (% dw)						
Alanine	1.06 (0.030) (0.99 - 1.10)	1.14 (0.034) (1.11 - 1.19)	-0.083 (0.045) (-0.13 - -0.016)	-0.23, 0.061	0.165	0.77, 1.34 (0.87 - 1.27)
Arginine	1.57 (0.054) (1.43 - 1.68)	1.72 (0.062) (1.68 - 1.77)	-0.15 (0.082) (-0.27 - -0.0029)	-0.41, 0.11	0.165	1.10, 1.93 (1.23 - 1.96)
Aspartic Acid	1.79 (0.047) (1.73 - 1.86)	1.83 (0.054) (1.79 - 1.89)	-0.037 (0.072) (-0.087 - 0.072)	-0.27, 0.19	0.640	1.33, 2.12 (1.42 - 2.23)
Cystine	0.65 (0.029) (0.59 - 0.70)	0.71 (0.033) (0.66 - 0.79)	-0.069 (0.038) (-0.10 - -0.0023)	-0.19, 0.053	0.170	0.38, 0.83 (0.45 - 0.79)

Table 19. Statistical Summary of Site NDVA Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Glutamic Acid	4.45 (0.18) (3.94 - 4.67)	5.04 (0.20) (4.92 - 5.26)	-0.59 (0.27) (-0.98 - -0.26)	-1.45, 0.27	0.116	2.73, 5.89 (3.26 - 5.43)
Glycine	1.21 (0.034) (1.12 - 1.25)	1.33 (0.039) (1.30 - 1.38)	-0.13 (0.052) (-0.19 - -0.058)	-0.29, 0.040	0.094	0.96, 1.47 (1.01 - 1.50)
Histidine	0.69 (0.024) (0.62 - 0.72)	0.75 (0.027) (0.73 - 0.78)	-0.062 (0.036) (-0.12 - -0.014)	-0.18, 0.053	0.184	0.47, 0.86 (0.54 - 0.80)
Isoleucine	0.99 (0.029) (0.92 - 1.04)	1.07 (0.034) (1.04 - 1.12)	-0.088 (0.045) (-0.15 - - 0.00057)	-0.23, 0.054	0.143	0.70, 1.22 (0.78 - 1.15)
Leucine	1.72 (0.051) (1.60 - 1.79)	1.88 (0.059) (1.83 - 1.95)	-0.15 (0.078) (-0.25 - -0.045)	-0.40, 0.097	0.147	1.21, 2.18 (1.36 - 2.07)
Lysine	1.50 (0.047) (1.34 - 1.58)	1.60 (0.054) (1.58 - 1.65)	-0.10 (0.071) (-0.24 - -0.0034)	-0.33, 0.13	0.254	1.02, 1.90 (1.20 - 1.68)

Table 19. Statistical Summary of Site NDVA Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Methionine	0.49 (0.014) (0.47 - 0.53)	0.53 (0.016) (0.50 - 0.56)	-0.036 (0.016) (-0.062 - -0.013)	-0.088, 0.016	0.117	0.30, 0.65 (0.36 - 0.57)
Phenylalanine	1.03 (0.027) (0.97 - 1.06)	1.11 (0.031) (1.08 - 1.15)	-0.081 (0.041) (-0.11 - -0.030)	-0.21, 0.050	0.144	0.77, 1.26 (0.84 - 1.25)
Proline	1.53 (0.046) (1.45 - 1.61)	1.68 (0.053) (1.62 - 1.73)	-0.14 (0.070) (-0.22 - -0.014)	-0.36, 0.080	0.134	0.90, 2.01 (1.12 - 1.78)
Serine	1.10 (0.025) (1.02 - 1.15)	1.16 (0.029) (1.13 - 1.18)	-0.061 (0.039) (-0.11 - -0.034)	-0.18, 0.062	0.213	0.81, 1.32 (0.88 - 1.30)
Threonine	1.03 (0.025) (0.97 - 1.07)	1.09 (0.029) (1.06 - 1.12)	-0.055 (0.038) (-0.12 - 0.0049)	-0.18, 0.066	0.245	0.82, 1.20 (0.84 - 1.22)
Tryptophan	0.26 (0.017) (0.23 - 0.27)	0.26 (0.019) (0.21 - 0.31)	0.0015 (0.021) (-0.039 - 0.050)	-0.066, 0.069	0.946	0.13, 0.35 (0.17 - 0.32)

Table 19. Statistical Summary of Site NDVA Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Tyrosine	0.70 (0.016) (0.67 - 0.73)	0.74 (0.019) (0.72 - 0.77)	-0.038 (0.025) (-0.054 - 0.00015)	-0.12, 0.041	0.224	0.57, 0.81 (0.60 - 0.84)
Valine	1.27 (0.035) (1.18 - 1.33)	1.36 (0.041) (1.32 - 1.41)	-0.094 (0.054) (-0.17 - 0.0061)	-0.27, 0.077	0.178	0.92, 1.55 (1.01 - 1.46)
Fatty Acid (% Total FA)						
16:0 Palmitic	4.08 (0.046) (3.91 - 4.20)	3.95 (0.053) (3.94 - 3.96)	0.13 (0.070) (-0.030 - 0.24)	-0.091, 0.36	0.156	2.84, 5.26 (3.55 - 4.69)
16:1 Palmitoleic	0.22 (0.0040) (0.21 - 0.23)	0.22 (0.0046) (0.22 - 0.23)	-0.0078 (0.0057) (-0.021 - 0.0036)	-0.026, 0.010	0.265	0.17, 0.30 (0.19 - 0.27)
18:0 Stearic	1.81 (0.023) (1.76 - 1.86)	2.11 (0.027) (2.10 - 2.12)	-0.30 (0.036) (-0.35 - -0.29)	-0.41, -0.19	0.003	0.90, 3.05 (1.50 - 2.64)
18:1 Oleic	64.63 (0.26) (63.67 - 65.18)	68.38 (0.29) (68.11 - 68.44)	-3.75 (0.31) (-4.44 - -3.26)	-4.74, -2.75	0.001	56.13, 70.69 (57.86 - 68.53)

Table 19. Statistical Summary of Site NDVA Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fatty Acid (% Total FA)						
18:2 Linoleic	18.16 (0.22) (17.63 - 18.98)	15.71 (0.25) (15.72 - 15.77)	2.45 (0.30) (2.03 - 3.22)	1.49, 3.41	0.003	12.60, 24.49 (14.12 - 22.57)
18:3 Linolenic	8.90 (0.050) (8.83 - 8.95)	7.31 (0.057) (7.19 - 7.40)	1.59 (0.076) (1.43 - 1.77)	1.34, 1.83	<0.001	6.96, 11.73 (7.99 - 10.94)
20:0 Arachidic	0.57 (0.0045) (0.56 - 0.58)	0.65 (0.0046) (0.64 - 0.65)	-0.079 (0.0019) (-0.081 - -0.077)	-0.085, -0.073	<0.001	0.45, 0.80 (0.53 - 0.71)
20:1 Eicosenoic	1.16 (0.0076) (1.14 - 1.16)	1.16 (0.0088) (1.15 - 1.18)	-0.0052 (0.012) (-0.011 - 0.0049)	-0.042, 0.032	0.686	0.83, 1.68 (1.04 - 1.56)
22:0 Behenic	0.28 (0.0025) (0.27 - 0.29)	0.30 (0.0029) (0.30 - 0.30)	-0.021 (0.0037) (-0.029 - -0.014)	-0.033, -0.0092	0.010	0.19, 0.43 (0.27 - 0.38)
24:0 Lignoceric	0.11 (0.037) (0.049 - 0.18)	0.16 (0.043) (0.049 - 0.22)	-0.045 (0.057) (-0.15 - 0.13)	-0.23, 0.14	0.488	0.033, 0.25 (0.044 - 0.21)

Table 19. Statistical Summary of Site NDVA Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fatty Acid (% Total FA)						
24:1 Nervonic	0.088 (0.020) (0.049 - 0.15)	0.090 (0.023) (0.049 - 0.12)	-0.0021 (0.031) (-0.053 - 0.057)	-0.10, 0.096	0.950	0.041, 0.18 (0.044 - 0.20)
Mineral						
Calcium (g/100g dw)	0.35 (0.034) (0.26 - 0.47)	0.31 (0.040) (0.28 - 0.34)	0.038 (0.053) (-0.048 - 0.12)	-0.13, 0.21	0.526	0.16, 0.61 (0.25 - 0.53)
Copper (mg/kg dw)	3.78 (0.066) (3.65 - 3.91)	3.53 (0.076) (3.33 - 3.67)	0.25 (0.095) (0.091 - 0.45)	-0.052, 0.55	0.078	2.00, 4.43 (2.52 - 4.93)
Iron (mg/kg dw)	55.86 (3.31) (45.59 - 63.71)	63.44 (3.82) (60.79 - 67.18)	-7.58 (5.06) (-16.77 - -0.19)	-23.67, 8.51	0.230	23.39, 86.23 (39.16 - 77.92)
Magnesium (g/100g dw)	0.36 (0.0086) (0.35 - 0.38)	0.35 (0.0099) (0.33 - 0.37)	0.014 (0.013) (-0.0079 - 0.031)	-0.028, 0.055	0.378	0.32, 0.43 (0.30 - 0.45)
Manganese (mg/kg dw)	46.37 (4.76) (26.41 - 53.76)	50.07 (5.45) (47.11 - 50.97)	-3.70 (6.32) (-20.70 - 2.50)	-23.82, 16.42	0.599	14.85, 61.05 (25.00 - 54.11)

Table 19. Statistical Summary of Site NDVA Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Mineral						
Phosphorus (g/100g dw)	0.59 (0.055) (0.45 - 0.80)	0.57 (0.063) (0.56 - 0.58)	0.022 (0.079) (-0.11 - 0.22)	-0.23, 0.27	0.794	0.38, 1.06 (0.44 - 0.87)
Potassium (g/100g dw)	0.52 (0.026) (0.46 - 0.63)	0.54 (0.030) (0.53 - 0.54)	-0.017 (0.040) (-0.073 - 0.097)	-0.14, 0.11	0.695	0.39, 0.96 (0.50 - 0.92)
Zinc (mg/kg dw)	33.50 (1.24) (30.30 - 35.77)	32.41 (1.43) (28.89 - 34.23)	1.10 (1.72) (-3.47 - 3.81)	-4.39, 6.58	0.570	20.19, 48.23 (22.18 - 47.61)
Vitamin (mg/100g dw)						
Vitamin E (a-tocopherol)	16.85 (0.63) (15.24 - 18.71)	9.43 (0.72) (8.46 - 10.20)	7.41 (0.96) (7.16 - 9.07)	4.37, 10.45	0.004	3.88, 17.28 (2.62 - 14.84)

[1]dw = dry weight; fw = fresh weight; FA = fatty acid.
[2]Test refers to MON 88302 (Untreated). These plants were not sprayed with herbicide, but received another conventional treatment as was done for the conventional control.
[3]Mean (S.E.) = least-square mean (standard error).
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 20. Statistical Summary of Site NDVA Canola Seed Anti-nutrients for MON 88302 (Untreated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Anti-nutrient						
Alkyl Glucosinolate (µmole/g dw)	3.79 (0.47) (3.15 - 4.28)	4.22 (0.54) (2.45 - 5.22)	-0.43 (0.63) (-1.41 - 0.70)	-2.45, 1.58	0.543	0, 29.02 (2.32 - 28.33)
Indolyl Glucosinolate (µmole/g dw)	4.41 (0.43) (3.64 - 5.21)	3.40 (0.49) (1.83 - 4.23)	1.01 (0.49) (0.019 - 1.81)	-0.55, 2.56	0.130	1.37, 6.62 (1.84 - 7.18)
Phytic Acid (% dw)	1.33 (0.081) (1.13 - 1.58)	1.59 (0.088) (1.46 - 1.68)	-0.26 (0.069) (-0.36 - -0.094)	-0.48, -0.037	0.033	0.70, 3.52 (1.10 - 2.71)
Sinapic Acid (% dw)	1.01 (0.024) (0.95 - 1.07)	0.83 (0.025) (0.83 - 0.88)	0.18 (0.015) (0.15 - 0.21)	0.14, 0.23	0.001	0.57, 1.13 (0.48 - 0.99)
Total Glucosinolate (µmole/g dw)	8.42 (0.88) (7.08 - 9.65)	7.72 (1.00) (4.38 - 9.61)	0.69 (1.11) (-0.90 - 2.70)	-2.85, 4.23	0.576	0, 32.20 (5.52 - 31.98)

[1]dw = dry weight.
[2]Test refers to MON 88302 (Untreated). These plants were not sprayed with herbicide, but received another conventional treatment as was done for the conventional control.
[3]Mean (S.E.) = least-square mean (standard error).
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 21. Statistical Summary of Site NDVA Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Proximate (% dw)						
Ash	3.31 (0.31) (3.31 - 3.31)	3.25 (0.26) (3.20 - 3.35)	0.063 (0.40) (0.11 - 0.11)	-1.22, 1.35	0.886	3.32, 4.66 (2.98 - 4.52)
Carbohydrates	24.01 (0.95) (21.83 - 26.20)	25.49 (0.78) (24.69 - 26.01)	-1.48 (1.22) (-4.18 - 0.45)	-5.37, 2.42	0.314	23.12, 30.77 (22.53 - 29.96)
Moisture (% fw)	5.72 (0.23) (5.72 - 6.08)	5.61 (0.20) (5.24 - 6.18)	0.12 (0.22) (-0.10 - 0.090)	-0.58, 0.82	0.633	4.33, 6.91 (4.09 - 8.48)
Protein	24.66 (0.74) (23.33 - 25.98)	26.12 (0.61) (25.33 - 27.02)	-1.46 (0.96) (-1.99 - -0.028)	-4.52, 1.60	0.226	17.20, 30.08 (18.68 - 28.32)
Total Fat	48.04 (0.44) (47.20 - 48.87)	45.17 (0.36) (44.77 - 45.78)	2.87 (0.57) (1.42 - 4.10)	1.07, 4.67	0.014	39.65, 51.24 (40.71 - 50.26)
Fiber (% dw)						
Acid Detergent Fiber	15.20 (0.37) (14.53 - 15.86)	15.22 (0.31) (14.88 - 15.35)	-0.016 (0.39) (-0.62 - 0.52)	-1.26, 1.23	0.969	6.95, 23.92 (9.75 - 21.22)

Table 21. Statistical Summary of Site NDVA Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fiber (% dw)						
Neutral Detergent Fiber	17.32 (0.81) (15.91 - 18.74)	17.74 (0.66) (17.16 - 18.65)	-0.42 (1.05) (-2.74 - 1.58)	-3.76, 2.93	0.718	10.07, 25.94 (10.93 - 22.75)
Total Dietary Fiber	18.71 (1.39) (17.08 - 21.08)	17.17 (1.15) (14.88 - 19.61)	1.54 (1.65) (-0.30 - 1.47)	-3.70, 6.79	0.418	13.97, 24.85 (12.64 - 26.47)
Amino Acid (% dw)						
Alanine	1.08 (0.042) (1.01 - 1.15)	1.14 (0.034) (1.11 - 1.19)	-0.061 (0.054) (-0.10 - 0.031)	-0.23, 0.11	0.344	0.77, 1.34 (0.87 - 1.27)
Arginine	1.60 (0.076) (1.47 - 1.72)	1.72 (0.062) (1.68 - 1.77)	-0.12 (0.098) (-0.21 - 0.030)	-0.43, 0.19	0.316	1.10, 1.93 (1.23 - 1.96)
Aspartic Acid	1.79 (0.067) (1.65 - 1.93)	1.83 (0.054) (1.79 - 1.89)	-0.040 (0.086) (-0.14 - 0.12)	-0.31, 0.23	0.675	1.33, 2.12 (1.42 - 2.23)
Cystine	0.70 (0.040) (0.64 - 0.73)	0.71 (0.033) (0.66 - 0.79)	-0.018 (0.046) (-0.028 - 0.037)	-0.16, 0.13	0.715	0.38, 0.83 (0.45 - 0.79)

Table 21. Statistical Summary of Site NDVA Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	95% Confidence Interval	Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Glutamic Acid	4.66 (0.25) (4.25 - 5.06)	5.04 (0.20) (4.92 - 5.26)	-0.38 (0.32) (-0.68 - 0.13)	-1.41, 0.64	0.319	2.73, 5.89 (3.26 - 5.43)
Glycine	1.24 (0.048) (1.16 - 1.32)	1.33 (0.039) (1.30 - 1.38)	-0.094 (0.062) (-0.15 - 0.0093)	-0.29, 0.10	0.229	0.96, 1.47 (1.01 - 1.50)
Histidine	0.72 (0.034) (0.67 - 0.77)	0.75 (0.027) (0.73 - 0.78)	-0.032 (0.043) (-0.065 - 0.032)	-0.17, 0.11	0.509	0.47, 0.86 (0.54 - 0.80)
Isoleucine	1.01 (0.041) (0.94 - 1.08)	1.07 (0.034) (1.04 - 1.12)	-0.067 (0.053) (-0.099 - 0.0095)	-0.24, 0.10	0.299	0.70, 1.22 (0.78 - 1.15)
Leucine	1.77 (0.073) (1.64 - 1.90)	1.88 (0.059) (1.83 - 1.95)	-0.11 (0.094) (-0.19 - 0.051)	-0.40, 0.19	0.336	1.21, 2.18 (1.36 - 2.07)
Lysine	1.55 (0.066) (1.46 - 1.63)	1.60 (0.054) (1.58 - 1.65)	-0.054 (0.085) (-0.12 - 0.052)	-0.32, 0.22	0.566	1.02, 1.90 (1.20 - 1.68)

Table 21. Statistical Summary of Site NDVA Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	95% Confidence Interval	Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Methionine	0.52 (0.019) (0.49 - 0.54)	0.53 (0.016) (0.50 - 0.56)	-0.0059 (0.020) (-0.013 - 0.0079)	-0.068, 0.056	0.782	0.30, 0.65 (0.36 - 0.57)
Phenylalanine	1.04 (0.038) (0.97 - 1.11)	1.11 (0.031) (1.08 - 1.15)	-0.066 (0.049) (-0.12 - 0.031)	-0.22, 0.091	0.272	0.77, 1.26 (0.84 - 1.25)
Proline	1.59 (0.065) (1.46 - 1.71)	1.68 (0.053) (1.62 - 1.73)	-0.086 (0.083) (-0.16 - 0.041)	-0.35, 0.18	0.377	0.90, 2.01 (1.12 - 1.78)
Serine	1.09 (0.036) (1.05 - 1.14)	1.16 (0.029) (1.13 - 1.18)	-0.064 (0.046) (-0.12 - 0.0094)	-0.21, 0.083	0.258	0.81, 1.32 (0.88 - 1.30)
Threonine	1.05 (0.035) (0.99 - 1.11)	1.09 (0.029) (1.06 - 1.12)	-0.037 (0.045) (-0.065 - 0.020)	-0.18, 0.11	0.470	0.82, 1.20 (0.84 - 1.22)
Tryptophan	0.26 (0.023) (0.25 - 0.26)	0.26 (0.019) (0.21 - 0.31)	0.0021 (0.025) (0.0061 - 0.036)	-0.079, 0.083	0.938	0.13, 0.35 (0.17 - 0.32)

Table 21. Statistical Summary of Site NDVA Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	95% Confidence Interval	Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Tyrosine	0.71 (0.023) (0.67 - 0.75)	0.74 (0.019) (0.72 - 0.77)	-0.031 (0.029) (-0.060 - 0.025)	-0.13, 0.062	0.364	0.57, 0.81 (0.60 - 0.84)
Valine	1.29 (0.050) (1.21 - 1.37)	1.36 (0.041) (1.32 - 1.41)	-0.073 (0.064) (-0.12 - 0.020)	-0.28, 0.13	0.340	0.92, 1.55 (1.01 - 1.46)
Fatty Acid (% Total FA)						
16:0 Palmitic	3.98 (0.065) (3.95 - 4.02)	3.95 (0.053) (3.94 - 3.96)	0.036 (0.084) (-0.016 - 0.083)	-0.23, 0.30	0.699	2.84, 5.26 (3.55 - 4.69)
16:1 Palmitoleic	0.20 (0.0057) (0.20 - 0.20)	0.22 (0.0046) (0.22 - 0.23)	-0.025 (0.0068) (-0.029 - -0.023)	-0.047, -0.0031	0.036	0.17, 0.30 (0.19 - 0.27)
18:0 Stearic	1.77 (0.033) (1.71 - 1.84)	2.11 (0.027) (2.10 - 2.12)	-0.34 (0.042) (-0.41 - -0.28)	-0.47, -0.20	0.004	0.90, 3.05 (1.50 - 2.64)
18:1 Oleic	65.14 (0.35) (64.90 - 65.20)	68.38 (0.29) (68.11 - 68.44)	-3.24 (0.37) (-3.24 - -3.21)	-4.43, -2.05	0.003	56.13, 70.69 (57.86 - 68.53)

Table 21. Statistical Summary of Site NDVA Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fatty Acid (% Total FA)						
18:2 Linoleic	17.86 (0.31) (17.78 - 18.02)	15.71 (0.25) (15.72 - 15.77)	2.15 (0.36) (2.06 - 2.26)	1.00, 3.29	0.009	12.60, 24.49 (14.12 - 22.57)
18:3 Linolenic	8.82 (0.070) (8.71 - 8.94)	7.31 (0.057) (7.19 - 7.40)	1.51 (0.091) (1.35 - 1.54)	1.22, 1.80	<0.001	6.96, 11.73 (7.99 - 10.94)
20:0 Arachidic	0.57 (0.0047) (0.56 - 0.57)	0.65 (0.0046) (0.64 - 0.65)	-0.082 (0.0023) (-0.085 - -0.077)	-0.089, -0.074	<0.001	0.45, 0.80 (0.53 - 0.71)
20:1 Eicosenoic	1.15 (0.011) (1.13 - 1.17)	1.16 (0.0088) (1.15 - 1.18)	-0.0098 (0.014) (-0.042 - 0.020)	-0.054, 0.035	0.531	0.83, 1.68 (1.04 - 1.56)
22:0 Behenic	0.27 (0.0036) (0.27 - 0.27)	0.30 (0.0029) (0.30 - 0.30)	-0.029 (0.0044) (-0.031 - -0.027)	-0.043, -0.015	0.007	0.19, 0.43 (0.27 - 0.38)
24:0 Lignoceric	0.17 (0.053) (0.16 - 0.18)	0.16 (0.043) (0.049 - 0.22)	0.012 (0.068) (-0.045 - 0.11)	-0.20, 0.23	0.873	0.033, 0.25 (0.044 - 0.21)

Table 21. Statistical Summary of Site NDVA Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	95% Confidence Interval	Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fatty Acid (% Total FA)						
24:1 Nervonic	0.12 (0.028) (0.11 - 0.13)	0.090 (0.023) (0.049 - 0.12)	0.031 (0.037) (-0.0061 - 0.081)	-0.086, 0.15	0.460	0.041, 0.18 (0.044 - 0.20)
Mineral						
Calcium (g/100g dw)	0.34 (0.049) (0.30 - 0.37)	0.31 (0.040) (0.28 - 0.34)	0.030 (0.063) (-0.038 - 0.068)	-0.17, 0.23	0.663	0.16, 0.61 (0.25 - 0.53)
Copper (mg/kg dw)	3.80 (0.092) (3.72 - 3.89)	3.53 (0.076) (3.33 - 3.67)	0.28 (0.11) (0.16 - 0.22)	-0.084, 0.64	0.092	2.00, 4.43 (2.52 - 4.93)
Iron (mg/kg dw)	51.55 (4.68) (46.78 - 56.32)	63.44 (3.82) (60.79 - 67.18)	-11.89 (6.04) (-20.41 - -6.03)	-31.12, 7.34	0.143	23.39, 86.23 (39.16 - 77.92)
Magnesium (g/100g dw)	0.36 (0.012) (0.34 - 0.37)	0.35 (0.0099) (0.33 - 0.37)	0.0074 (0.016) (-0.012 - 0.043)	-0.043, 0.058	0.668	0.32, 0.43 (0.30 - 0.45)
Manganese (mg/kg dw)	50.88 (6.56) (46.85 - 51.55)	50.07 (5.45) (47.11 - 50.97)	0.81 (7.57) (-0.26 - 0.58)	-23.29, 24.90	0.921	14.85, 61.05 (25.00 - 54.11)

Table 21. Statistical Summary of Site NDVA Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	95% Confidence Interval	Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Mineral						
Phosphorus (g/100g dw)	0.57 (0.077) (0.56 - 0.59)	0.57 (0.063) (0.56 - 0.58)	0.0026 (0.094) (0.0027 - 0.014)	-0.30, 0.30	0.979	0.38, 1.06 (0.44 - 0.87)
Potassium (g/100g dw)	0.48 (0.037) (0.48 - 0.49)	0.54 (0.030) (0.53 - 0.54)	-0.053 (0.048) (-0.053 - -0.048)	-0.20, 0.099	0.346	0.39, 0.96 (0.50 - 0.92)
Zinc (mg/kg dw)	30.46 (1.73) (29.81 - 31.08)	32.41 (1.43) (28.89 - 34.23)	-1.94 (2.07) (-3.15 - 0.93)	-8.52, 4.63	0.416	20.19, 48.23 (22.18 - 47.61)
Vitamin (mg/100g dw)						
Vitamin E (a-tocopherol)	15.89 (0.88) (15.23 - 16.55)	9.43 (0.72) (8.46 - 10.20)	6.45 (1.14) (5.03 - 8.09)	2.82, 10.08	0.010	3.88, 17.28 (2.62 - 14.84)

[1]dw = dry weight; fw = fresh weight; FA = fatty acid.
[2]Test refers to MON 88302 (Herbicide-Treated).
[3]Mean (S.E.) = least-square mean (standard error).
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 22. Statistical Summary of Site NDVA Canola Seed Anti-nutrients for MON 88302 (Herbicide-Treated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Anti-nutrient						
Alkyl Glucosinolate (µmole/g dw)	3.90 (0.65) (3.74 - 3.88)	4.22 (0.54) (2.45 - 5.22)	-0.32 (0.76) (-1.34 - 1.29)	-2.73, 2.10	0.705	0, 29.02 (2.32 - 28.33)
Indolyl Glucosinolate (µmole/g dw)	4.51 (0.57) (3.99 - 4.48)	3.40 (0.49) (1.83 - 4.23)	1.11 (0.58) (0.25 - 2.16)	-0.74, 2.96	0.152	1.37, 6.62 (1.84 - 7.18)
Phytic Acid (% dw)	1.58 (0.097) (1.41 - 1.57)	1.59 (0.088) (1.46 - 1.68)	-0.0050 (0.082) (-0.052 - -0.012)	-0.27, 0.26	0.954	0.70, 3.52 (1.10 - 2.71)
Sinapic Acid (% dw)	1.02 (0.027) (1.00 - 1.04)	0.83 (0.025) (0.83 - 0.88)	0.19 (0.018) (0.18 - 0.21)	0.14, 0.25	0.001	0.57, 1.13 (0.48 - 0.99)
Total Glucosinolate (µmole/g dw)	8.59 (1.20) (7.96 - 8.57)	7.72 (1.00) (4.38 - 9.61)	0.87 (1.33) (-1.04 - 3.58)	-3.37, 5.10	0.560	0, 32.20 (5.52 - 31.98)

[1]dw = dry weight.
[2]Test refers to MON 88302 (Herbicide-Treated).
[3]Mean (S.E.) = least-square mean (standard error).
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 23. Statistical Summary of Site SKSA Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Proximate (% dw)						
Ash	4.03 (0.18) (3.67 - 4.63)	4.01 (0.17) (3.70 - 4.33)	0.024 (0.10) (-0.13 - 0.30)	-0.26, 0.30	0.824	3.32, 4.66 (2.98 - 4.52)
Carbohydrates	24.40 (0.51) (23.82 - 24.80)	25.05 (0.44) (23.91 - 26.81)	-0.65 (0.59) (-0.77 - 0.89)	-2.30, 0.99	0.333	23.12, 30.77 (22.53 - 29.96)
Moisture (% fw)	4.34 (0.21) (3.85 - 4.73)	4.69 (0.18) (4.41 - 4.88)	-0.34 (0.28) (-0.96 - 0.32)	-1.13, 0.44	0.290	4.33, 6.91 (4.09 - 8.48)
Protein	22.71 (0.55) (22.36 - 23.19)	22.14 (0.50) (21.03 - 24.16)	0.58 (0.55) (-0.97 - 1.33)	-0.96, 2.11	0.355	17.20, 30.08 (18.68 - 28.32)
Total Fat	48.73 (0.65) (48.36 - 49.65)	48.81 (0.59) (46.96 - 50.24)	-0.078 (0.64) (-1.68 - 1.40)	-1.86, 1.70	0.909	39.65, 51.24 (40.71 - 50.26)
Fiber (% dw)						
Acid Detergent Fiber	8.36 (0.63) (7.06 - 9.89)	9.85 (0.61) (8.94 - 10.78)	-1.49 (0.35) (-2.31 - -0.89)	-2.46, -0.52	0.012	6.95, 23.92 (9.75 - 21.22)

Table 23. Statistical Summary of Site SKSA Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fiber (% dw)						
Neutral Detergent Fiber	10.15 (0.73) (8.82 - 11.23)	12.59 (0.67) (11.56 - 13.91)	-2.44 (0.63) (-2.82 - -1.87)	-4.19, -0.69	0.017	10.07, 25.94 (10.93 - 22.75)
Total Dietary Fiber	15.59 (0.54) (14.87 - 16.90)	17.21 (0.48) (16.57 - 17.89)	-1.62 (0.56) (-2.78 - -0.99)	-3.17, -0.070	0.044	13.97, 24.85 (12.64 - 26.47)
Amino Acid (% dw)						
Alanine	1.05 (0.033) (1.00 - 1.10)	1.01 (0.028) (0.93 - 1.10)	0.044 (0.043) (-0.10 - 0.13)	-0.077, 0.16	0.370	0.77, 1.34 (0.87 - 1.27)
Arginine	1.36 (0.052) (1.29 - 1.44)	1.39 (0.045) (1.29 - 1.55)	-0.031 (0.069) (-0.27 - 0.081)	-0.22, 0.16	0.677	1.10, 1.93 (1.23 - 1.96)
Aspartic Acid	1.47 (0.037) (1.44 - 1.52)	1.53 (0.032) (1.46 - 1.65)	-0.067 (0.049) (-0.21 - 0.028)	-0.20, 0.069	0.241	1.33, 2.12 (1.42 - 2.23)
Cystine	0.57 (0.022) (0.56 - 0.58)	0.55 (0.019) (0.49 - 0.62)	0.020 (0.025) (-0.035 - 0.054)	-0.050, 0.089	0.475	0.38, 0.83 (0.45 - 0.79)

Table 23. Statistical Summary of Site SKSA Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Glutamic Acid	3.83 (0.14) (3.65 - 3.95)	3.98 (0.12) (3.65 - 4.39)	-0.14 (0.18) (-0.74 - 0.30)	-0.64, 0.36	0.471	2.73, 5.89 (3.26 - 5.43)
Glycine	1.04 (0.023) (1.02 - 1.06)	1.08 (0.020) (1.01 - 1.15)	-0.036 (0.030) (-0.13 - 0.030)	-0.12, 0.048	0.302	0.96, 1.47 (1.01 - 1.50)
Histidine	0.59 (0.015) (0.58 - 0.60)	0.61 (0.013) (0.57 - 0.65)	-0.012 (0.019) (-0.076 - 0.031)	-0.066, 0.042	0.568	0.47, 0.86 (0.54 - 0.80)
Isoleucine	0.90 (0.021) (0.88 - 0.91)	0.90 (0.018) (0.84 - 0.96)	-0.0035 (0.028) (-0.081 - 0.059)	-0.081, 0.074	0.905	0.70, 1.22 (0.78 - 1.15)
Leucine	1.60 (0.045) (1.55 - 1.64)	1.58 (0.039) (1.46 - 1.71)	0.019 (0.059) (-0.16 - 0.15)	-0.15, 0.18	0.767	1.21, 2.18 (1.36 - 2.07)
Lysine	1.38 (0.037) (1.33 - 1.42)	1.37 (0.032) (1.30 - 1.48)	0.014 (0.050) (-0.15 - 0.099)	-0.12, 0.15	0.787	1.02, 1.90 (1.20 - 1.68)

Table 23. Statistical Summary of Site SKSA Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Methionine	0.46 (0.015) (0.46 - 0.48)	0.44 (0.013) (0.40 - 0.49)	0.022 (0.016) (-0.028 - 0.038)	-0.024, 0.067	0.260	0.30, 0.65 (0.36 - 0.57)
Phenylalanine	0.95 (0.023) (0.93 - 0.98)	0.94 (0.020) (0.87 - 1.01)	0.017 (0.031) (-0.075 - 0.077)	-0.068, 0.10	0.604	0.77, 1.26 (0.84 - 1.25)
Proline	1.37 (0.035) (1.31 - 1.42)	1.44 (0.030) (1.35 - 1.52)	-0.064 (0.046) (-0.21 - 0.068)	-0.19, 0.063	0.234	0.90, 2.01 (1.12 - 1.78)
Serine	0.98 (0.025) (0.93 - 1.02)	0.99 (0.022) (0.94 - 1.06)	-0.0059 (0.033) (-0.13 - 0.059)	-0.098, 0.086	0.866	0.81, 1.32 (0.88 - 1.30)
Threonine	0.90 (0.022) (0.87 - 0.93)	0.93 (0.019) (0.88 - 0.99)	-0.025 (0.029) (-0.12 - 0.022)	-0.11, 0.056	0.435	0.82, 1.20 (0.84 - 1.22)
Tryptophan	0.21 (0.0091) (0.19 - 0.24)	0.22 (0.0082) (0.21 - 0.24)	-0.0076 (0.0093) (-0.029 - 0.0028)	-0.033, 0.018	0.462	0.13, 0.35 (0.17 - 0.32)

Table 23. Statistical Summary of Site SKSA Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Tyrosine	0.64 (0.014) (0.62 - 0.65)	0.64 (0.012) (0.61 - 0.68)	-0.0071 (0.018) (-0.058 - 0.041)	-0.058, 0.044	0.719	0.57, 0.81 (0.60 - 0.84)
Valine	1.15 (0.025) (1.13 - 1.16)	1.15 (0.022) (1.08 - 1.23)	-0.0051 (0.034) (-0.095 - 0.067)	-0.099, 0.089	0.887	0.92, 1.55 (1.01 - 1.46)
Fatty Acid (% Total FA)						
16:0 Palmitic	4.42 (0.047) (4.28 - 4.57)	4.07 (0.042) (4.05 - 4.10)	0.35 (0.049) (0.23 - 0.47)	0.21, 0.49	0.002	2.84, 5.26 (3.55 - 4.69)
16:1 Palmitoleic	0.26 (0.0047) (0.24 - 0.27)	0.25 (0.0043) (0.24 - 0.25)	0.0064 (0.0044) (-0.0010 - 0.017)	-0.0059, 0.019	0.220	0.17, 0.30 (0.19 - 0.27)
18:0 Stearic	1.75 (0.055) (1.70 - 1.76)	2.08 (0.049) (1.91 - 2.19)	-0.34 (0.057) (-0.40 - -0.18)	-0.49, -0.18	0.004	0.90, 3.05 (1.50 - 2.64)
18:1 Oleic	62.18 (0.55) (61.50 - 63.36)	65.69 (0.51) (64.73 - 66.86)	-3.51 (0.47) (-4.46 - -3.23)	-4.81, -2.21	0.001	56.13, 70.69 (57.86 - 68.53)

Table 23. Statistical Summary of Site SKSA Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	95% Confidence Interval	Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fatty Acid (% Total FA)						
18:2 Linoleic	18.67 (0.37) (17.92 - 19.21)	17.22 (0.34) (16.64 - 18.01)	1.45 (0.34) (1.29 - 1.97)	0.52, 2.39	0.012	12.60, 24.49 (14.12 - 22.57)
18:3 Linolenic	10.30 (0.23) (10.06 - 10.70)	8.38 (0.20) (7.94 - 8.99)	1.92 (0.25) (1.29 - 2.42)	1.24, 2.61	0.001	6.96, 11.73 (7.99 - 10.94)
20:0 Arachidic	0.55 (0.0079) (0.55 - 0.55)	0.62 (0.0069) (0.59 - 0.63)	-0.065 (0.0090) (-0.078 - -0.041)	-0.090, -0.040	0.001	0.45, 0.80 (0.53 - 0.71)
20:1 Eicosenoic	1.21 (0.015) (1.20 - 1.22)	1.13 (0.013) (1.10 - 1.17)	0.078 (0.020) (0.029 - 0.10)	0.021, 0.13	0.018	0.83, 1.68 (1.04 - 1.56)
22:0 Behenic	0.29 (0.0031) (0.28 - 0.29)	0.29 (0.0027) (0.28 - 0.30)	-0.0067 (0.0037) (-0.011 - - 0.0089)	-0.017, 0.0035	0.140	0.19, 0.43 (0.27 - 0.38)
24:0 Lignoceric	0.21 (0.029) (0.18 - 0.22)	0.15 (0.026) (0.045 - 0.22)	0.058 (0.030) (0.0051 - 0.13)	-0.024, 0.14	0.122	0.033, 0.25 (0.044 - 0.21)

Table 23. Statistical Summary of Site SKSA Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	95% Confidence Interval	Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fatty Acid (% Total FA)						
24:1 Nervonic	0.18 (0.020) (0.16 - 0.19)	0.12 (0.018) (0.045 - 0.16)	0.061 (0.021) (0.014 - 0.11)	0.0041, 0.12	0.040	0.041, 0.18 (0.044 - 0.20)
Mineral						
Calcium (g/100g dw)	0.45 (0.015) (0.42 - 0.47)	0.44 (0.013) (0.40 - 0.47)	0.0093 (0.020) (-0.040 - 0.054)	-0.046, 0.065	0.664	0.16, 0.61 (0.25 - 0.53)
Copper (mg/kg dw)	3.67 (0.16) (3.45 - 4.09)	3.23 (0.15) (2.96 - 3.48)	0.44 (0.18) (-0.024 - 0.64)	-0.053, 0.93	0.068	2.00, 4.43 (2.52 - 4.93)
Iron (mg/kg dw)	71.70 (8.79) (55.64 - 98.17)	59.66 (7.61) (50.11 - 77.74)	12.05 (11.63) (-22.10 - 43.42)	-20.23, 44.33	0.358	23.39, 86.23 (39.16 - 77.92)
Magnesium (g/100g dw)	0.33 (0.017) (0.30 - 0.37)	0.36 (0.016) (0.34 - 0.39)	-0.033 (0.014) (-0.056 - -0.021)	-0.071, 0.0044	0.070	0.32, 0.43 (0.30 - 0.45)
Manganese (mg/kg dw)	39.23 (2.44) (32.87 - 44.17)	34.73 (2.12) (33.12 - 37.61)	4.50 (3.03) (-4.74 - 9.56)	-3.91, 12.91	0.211	14.85, 61.05 (25.00 - 54.11)

Table 23. Statistical Summary of Site SKSA Canola Seed Nutrients for MON 88302 (Untreated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Mineral						
Phosphorus (g/100g dw)	0.68 (0.051) (0.56 - 0.83)	0.74 (0.048) (0.67 - 0.78)	-0.058 (0.043) (-0.11 - 0.069)	-0.18, 0.062	0.250	0.38, 1.06 (0.44 - 0.87)
Potassium (g/100g dw)	0.79 (0.030) (0.76 - 0.87)	0.71 (0.030) (0.67 - 0.80)	0.081 (0.012) (0.066 - 0.098)	0.049, 0.11	0.002	0.39, 0.96 (0.50 - 0.92)
Zinc (mg/kg dw)	35.93 (2.06) (34.54 - 38.79)	33.10 (1.90) (29.75 - 40.66)	2.83 (1.84) (-1.86 - 6.08)	-2.29, 7.95	0.199	20.19, 48.23 (22.18 - 47.61)
Vitamin (mg/100g dw)						
Vitamin E (a-tocopherol)	2.23 (1.08) (1.27 - 3.87)	6.91 (0.94) (3.33 - 9.22)	-4.69 (1.43) (-7.67 - 0.54)	-8.67, -0.71	0.030	3.88, 17.28 (2.62 - 14.84)

[1]dw = dry weight; fw = fresh weight; FA = fatty acid.
[2]Test refers to MON 88302 (Untreated). These plants were not sprayed with herbicide, but received another conventional treatment as was done for the conventional control.
[3]Mean (S.E.) = least-square mean (standard error).
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 24. Statistical Summary of Site SKSA Canola Seed Anti-nutrients for MON 88302 (Untreated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Anti-nutrient						
Alkyl Glucosinolate (µmole/g dw)	3.50 (0.71) (1.97 - 3.86)	5.82 (0.63) (4.87 - 8.28)	-2.33 (0.78) (-3.11 - -1.04)	-4.48, -0.17	0.039	0, 29.02 (2.32 - 28.33)
Indolyl Glucosinolate (µmole/g dw)	1.83 (0.34) (1.06 - 1.98)	3.30 (0.32) (2.68 - 4.35)	-1.47 (0.29) (-1.62 - -0.74)	-2.27, -0.66	0.007	1.37, 6.62 (1.84 - 7.18)
Phytic Acid (% dw)	1.61 (0.20) (1.11 - 2.08)	1.95 (0.18) (1.69 - 2.20)	-0.34 (0.24) (-0.71 - 0.39)	-1.00, 0.32	0.223	0.70, 3.52 (1.10 - 2.71)
Sinapic Acid (% dw)	0.37 (0.059) (0.29 - 0.47)	0.81 (0.051) (0.65 - 0.95)	-0.45 (0.075) (-0.66 - -0.32)	-0.66, -0.24	0.003	0.57, 1.13 (0.48 - 0.99)
Total Glucosinolate (µmole/g dw)	5.45 (1.02) (3.11 - 5.96)	9.22 (0.93) (7.85 - 12.72)	-3.76 (1.02) (-4.74 - -1.96)	-6.59, -0.94	0.020	0, 32.20 (5.52 - 31.98)

[1]dw = dry weight.
[2]Test refers to MON 88302 (Untreated). These plants were not sprayed with herbicide, but received another conventional treatment as was done for the conventional control.
[3]Mean (S.E.) = least-square mean (standard error).
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 25. Statistical Summary of Site SKSA Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Proximate (% dw)						
Ash	3.95 (0.18) (3.68 - 4.44)	4.01 (0.17) (3.70 - 4.33)	-0.058 (0.10) (-0.20 - 0.12)	-0.34, 0.22	0.594	3.32, 4.66 (2.98 - 4.52)
Carbohydrates	23.46 (0.51) (23.11 - 23.84)	25.05 (0.44) (23.91 - 26.81)	-1.59 (0.59) (-2.97 - -0.39)	-3.23, 0.056	0.055	23.12, 30.77 (22.53 - 29.96)
Moisture (% fw)	4.36 (0.21) (3.90 - 4.82)	4.69 (0.18) (4.41 - 4.88)	-0.33 (0.28) (-0.75 - 0.010)	-1.12, 0.45	0.306	4.33, 6.91 (4.09 - 8.48)
Protein	23.82 (0.55) (23.62 - 24.58)	22.14 (0.50) (21.03 - 24.16)	1.68 (0.55) (0.42 - 2.50)	0.15, 3.21	0.038	17.20, 30.08 (18.68 - 28.32)
Total Fat	48.83 (0.65) (47.91 - 49.22)	48.81 (0.59) (46.96 - 50.24)	0.022 (0.64) (-1.02 - 0.95)	-1.76, 1.80	0.974	39.65, 51.24 (40.71 - 50.26)
Fiber (% dw)						
Acid Detergent Fiber	10.40 (0.63) (9.19 - 11.50)	9.85 (0.61) (8.94 - 10.78)	0.54 (0.35) (-0.011 - 1.18)	-0.42, 1.51	0.193	6.95, 23.92 (9.75 - 21.22)

Table 25. Statistical Summary of Site SKSA Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fiber (% dw)						
Neutral Detergent Fiber	11.61 (0.73) (9.48 - 12.75)	12.59 (0.67) (11.56 - 13.91)	-0.98 (0.63) (-2.08 - 0.013)	-2.72, 0.77	0.194	10.07, 25.94 (10.93 - 22.75)
Total Dietary Fiber	18.68 (0.54) (17.17 - 19.24)	17.21 (0.48) (16.57 - 17.89)	1.48 (0.56) (0.60 - 2.52)	-0.075, 3.03	0.057	13.97, 24.85 (12.64 - 26.47)
Amino Acid (% dw)						
Alanine	1.05 (0.033) (1.02 - 1.07)	1.01 (0.028) (0.93 - 1.10)	0.040 (0.043) (-0.031 - 0.069)	-0.080, 0.16	0.405	0.77, 1.34 (0.87 - 1.27)
Arginine	1.33 (0.052) (1.27 - 1.38)	1.39 (0.045) (1.29 - 1.55)	-0.062 (0.069) (-0.18 - -0.018)	-0.26, 0.13	0.420	1.10, 1.93 (1.23 - 1.96)
Aspartic Acid	1.45 (0.037) (1.40 - 1.50)	1.53 (0.032) (1.46 - 1.65)	-0.085 (0.049) (-0.15 - -0.084)	-0.22, 0.052	0.159	1.33, 2.12 (1.42 - 2.23)
Cystine	0.55 (0.022) (0.53 - 0.57)	0.55 (0.019) (0.49 - 0.62)	-0.0025 (0.025) (-0.050 - 0.053)	-0.072, 0.067	0.923	0.38, 0.83 (0.45 - 0.79)

Table 25. Statistical Summary of Site SKSA Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	95% Confidence Interval	Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Glutamic Acid	3.84 (0.14) (3.66 - 3.97)	3.98 (0.12) (3.65 - 4.39)	-0.14 (0.18) (-0.50 - 0.094)	-0.64, 0.36	0.493	2.73, 5.89 (3.26 - 5.43)
Glycine	1.05 (0.023) (1.02 - 1.07)	1.08 (0.020) (1.01 - 1.15)	-0.026 (0.030) (-0.084 - -0.016)	-0.11, 0.058	0.436	0.96, 1.47 (1.01 - 1.50)
Histidine	0.59 (0.015) (0.57 - 0.60)	0.61 (0.013) (0.57 - 0.65)	-0.016 (0.019) (-0.058 - 0.0030)	-0.070, 0.037	0.443	0.47, 0.86 (0.54 - 0.80)
Isoleucine	0.91 (0.021) (0.89 - 0.93)	0.90 (0.018) (0.84 - 0.96)	0.011 (0.028) (-0.049 - 0.041)	-0.067, 0.088	0.716	0.70, 1.22 (0.78 - 1.15)
Leucine	1.61 (0.045) (1.55 - 1.65)	1.58 (0.039) (1.46 - 1.71)	0.029 (0.059) (-0.073 - 0.085)	-0.13, 0.19	0.644	1.21, 2.18 (1.36 - 2.07)
Lysine	1.33 (0.037) (1.27 - 1.37)	1.37 (0.032) (1.30 - 1.48)	-0.034 (0.050) (-0.12 - 0.024)	-0.17, 0.10	0.527	1.02, 1.90 (1.20 - 1.68)

Table 25. Statistical Summary of Site SKSA Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	95% Confidence Interval	Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Methionine	0.45 (0.015) (0.44 - 0.47)	0.44 (0.013) (0.40 - 0.49)	0.0082 (0.016) (-0.022 - 0.034)	-0.037, 0.054	0.643	0.30, 0.65 (0.36 - 0.57)
Phenylalanine	0.96 (0.023) (0.93 - 0.98)	0.94 (0.020) (0.87 - 1.01)	0.026 (0.031) (-0.028 - 0.044)	-0.059, 0.11	0.443	0.77, 1.26 (0.84 - 1.25)
Proline	1.39 (0.035) (1.34 - 1.42)	1.44 (0.030) (1.35 - 1.52)	-0.050 (0.046) (-0.13 - 0.0026)	-0.18, 0.077	0.335	0.90, 2.01 (1.12 - 1.78)
Serine	0.97 (0.025) (0.93 - 0.99)	0.99 (0.022) (0.94 - 1.06)	-0.022 (0.033) (-0.067 - -0.0013)	-0.11, 0.070	0.546	0.81, 1.32 (0.88 - 1.30)
Threonine	0.89 (0.022) (0.86 - 0.92)	0.93 (0.019) (0.88 - 0.99)	-0.038 (0.029) (-0.072 - -0.031)	-0.12, 0.043	0.263	0.82, 1.20 (0.84 - 1.22)
Tryptophan	0.20 (0.0091) (0.19 - 0.22)	0.22 (0.0082) (0.21 - 0.24)	-0.018 (0.0093) (-0.035 - 0.0041)	-0.043, 0.0084	0.134	0.13, 0.35 (0.17 - 0.32)

Table 25. Statistical Summary of Site SKSA Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Amino Acid (% dw)						
Tyrosine	0.64 (0.014) (0.61 - 0.65)	0.64 (0.012) (0.61 - 0.68)	-0.0084 (0.018) (-0.037 - 0.0079)	-0.060, 0.043	0.672	0.57, 0.81 (0.60 - 0.84)
Valine	1.16 (0.025) (1.13 - 1.19)	1.15 (0.022) (1.08 - 1.23)	0.0090 (0.034) (-0.073 - 0.046)	-0.085, 0.10	0.801	0.92, 1.55 (1.01 - 1.46)
Fatty Acid (% Total FA)						
16:0 Palmitic	4.51 (0.047) (4.46 - 4.57)	4.07 (0.042) (4.05 - 4.10)	0.44 (0.049) (0.41 - 0.48)	0.31, 0.58	<0.001	2.84, 5.26 (3.55 - 4.69)
16:1 Palmitoleic	0.26 (0.0047) (0.25 - 0.26)	0.25 (0.0043) (0.24 - 0.25)	0.0062 (0.0044) (0.0043 - 0.0074)	-0.0061, 0.019	0.235	0.17, 0.30 (0.19 - 0.27)
18:0 Stearic	1.66 (0.055) (1.54 - 1.72)	2.08 (0.049) (1.91 - 2.19)	-0.42 (0.057) (-0.48 - -0.35)	-0.58, -0.26	0.001	0.90, 3.05 (1.50 - 2.64)
18:1 Oleic	61.91 (0.55) (60.51 - 62.29)	65.69 (0.51) (64.73 - 66.86)	-3.78 (0.47) (-4.30 - -2.59)	-5.08, -2.48	0.001	56.13, 70.69 (57.86 - 68.53)

Table 25. Statistical Summary of Site SKSA Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fatty Acid (% Total FA)						
18:2 Linoleic	18.49 (0.37) (18.08 - 19.48)	17.22 (0.34) (16.64 - 18.01)	1.27 (0.34) (0.40 - 1.90)	0.33, 2.20	0.019	12.60, 24.49 (14.12 - 22.57)
18:3 Linolenic	10.78 (0.23) (10.39 - 11.23)	8.38 (0.20) (7.94 - 8.99)	2.40 (0.25) (2.08 - 2.64)	1.72, 3.09	<0.001	6.96, 11.73 (7.99 - 10.94)
20:0 Arachidic	0.54 (0.0079) (0.52 - 0.55)	0.62 (0.0069) (0.59 - 0.63)	-0.082 (0.0090) (-0.091 - -0.070)	-0.11, -0.057	<0.001	0.45, 0.80 (0.53 - 0.71)
20:1 Eicosenoic	1.24 (0.015) (1.22 - 1.26)	1.13 (0.013) (1.10 - 1.17)	0.11 (0.020) (0.050 - 0.14)	0.052, 0.16	0.005	0.83, 1.68 (1.04 - 1.56)
22:0 Behenic	0.28 (0.0031) (0.28 - 0.29)	0.29 (0.0027) (0.28 - 0.30)	-0.0088 (0.0037) (-0.014 - 0.0025)	-0.019, 0.0014	0.073	0.19, 0.43 (0.27 - 0.38)
24:0 Lignoceric	0.20 (0.029) (0.20 - 0.23)	0.15 (0.026) (0.045 - 0.22)	0.050 (0.030) (-0.016 - 0.062)	-0.032, 0.13	0.163	0.033, 0.25 (0.044 - 0.21)

Table 25. Statistical Summary of Site SKSA Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	95% Confidence Interval	Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Fatty Acid (% Total FA)						
24:1 Nervonic	0.17 (0.020) (0.16 - 0.20)	0.12 (0.018) (0.045 - 0.16)	0.055 (0.021) (0.034 - 0.055)	-0.0021, 0.11	0.055	0.041, 0.18 (0.044 - 0.20)
Mineral						
Calcium (g/100g dw)	0.41 (0.015) (0.40 - 0.42)	0.44 (0.013) (0.40 - 0.47)	-0.031 (0.020) (-0.068 - 0.0021)	-0.086, 0.025	0.199	0.16, 0.61 (0.25 - 0.53)
Copper (mg/kg dw)	3.52 (0.16) (3.27 - 3.85)	3.23 (0.15) (2.96 - 3.48)	0.29 (0.18) (-0.21 - 0.57)	-0.21, 0.78	0.181	2.00, 4.43 (2.52 - 4.93)
Iron (mg/kg dw)	63.21 (8.79) (55.62 - 69.61)	59.66 (7.61) (50.11 - 77.74)	3.56 (11.63) (-13.33 - 14.87)	-28.72, 35.84	0.774	23.39, 86.23 (39.16 - 77.92)
Magnesium (g/100g dw)	0.36 (0.017) (0.31 - 0.39)	0.36 (0.016) (0.34 - 0.39)	-0.0044 (0.014) (-0.032 - 0.026)	-0.042, 0.033	0.764	0.32, 0.43 (0.30 - 0.45)
Manganese (mg/kg dw)	41.77 (2.44) (38.56 - 47.24)	34.73 (2.12) (33.12 - 37.61)	7.04 (3.03) (0.95 - 12.63)	-1.37, 15.45	0.080	14.85, 61.05 (25.00 - 54.11)

Table 25. Statistical Summary of Site SKSA Canola Seed Nutrients for MON 88302 (Herbicide-Treated) vs. Ebony (cont.)

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	95% Confidence Interval	Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Mineral						
Phosphorus (g/100g dw)	0.68 (0.051) (0.57 - 0.80)	0.74 (0.048) (0.67 - 0.78)	-0.057 (0.043) (-0.095 - 0.040)	-0.18, 0.062	0.254	0.38, 1.06 (0.44 - 0.87)
Potassium (g/100g dw)	0.82 (0.030) (0.77 - 0.90)	0.71 (0.030) (0.67 - 0.80)	0.11 (0.012) (0.084 - 0.14)	0.077, 0.14	<0.001	0.39, 0.96 (0.50 - 0.92)
Zinc (mg/kg dw)	41.58 (2.06) (39.33 - 45.49)	33.10 (1.90) (29.75 - 40.66)	8.48 (1.84) (4.84 - 11.44)	3.36, 13.60	0.010	20.19, 48.23 (22.18 - 47.61)
Vitamin (mg/100g dw)						
Vitamin E (a-tocopherol)	1.49 (1.08) (1.30 - 1.66)	6.91 (0.94) (3.33 - 9.22)	-5.43 (1.43) (-6.92 - -1.67)	-9.40, -1.45	0.019	3.88, 17.28 (2.62 - 14.84)

[1]dw = dry weight; fw = fresh weight; FA = fatty acid.
[2]Test refers to MON 88302 (Herbicide-Treated).
[3]Mean (S.E.) = least-square mean (standard error).
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Table 26. Statistical Summary of Site SKSA Canola Seed Anti-nutrients for MON 88302 (Herbicide-Treated) vs. Ebony

Analytical Component (Units)[1]	Test[2] Mean (S.E.)[3] (Range)	Control[4] Mean (S.E.) (Range)	Difference (Test minus Control) Mean (S.E.) (Range)	Difference (Test minus Control) 95% Confidence Interval	Difference (Test minus Control) Significance (p-Value)	Conventional Tolerance Interval[5] (Range)
Anti-nutrient						
Alkyl Glucosinolate (µmole/g dw)	1.61 (0.71) (1.19 - 2.17)	5.82 (0.63) (4.87 - 8.28)	-4.21 (0.78) (-6.11 - -3.28)	-6.36, -2.06	0.005	0, 29.02 (2.32 - 28.33)
Indolyl Glucosinolate (µmole/g dw)	0.86 (0.34) (0.49 - 1.31)	3.30 (0.32) (2.68 - 4.35)	-2.44 (0.29) (-3.05 - -2.19)	-3.24, -1.64	0.001	1.37, 6.62 (1.84 - 7.18)
Phytic Acid (% dw)	1.58 (0.20) (1.20 - 1.91)	1.95 (0.18) (1.69 - 2.20)	-0.37 (0.24) (-0.62 - 0.22)	-1.03, 0.29	0.191	0.70, 3.52 (1.10 - 2.71)
Sinapic Acid (% dw)	0.22 (0.059) (0.16 - 0.28)	0.81 (0.051) (0.65 - 0.95)	-0.60 (0.075) (-0.76 - -0.49)	-0.80, -0.39	0.001	0.57, 1.13 (0.48 - 0.99)
Total Glucosinolate (µmole/g dw)	2.53 (1.02) (1.73 - 3.51)	9.22 (0.93) (7.85 - 12.72)	-6.69 (1.02) (-9.21 - -5.78)	-9.51, -3.86	0.002	0, 32.20 (5.52 - 31.98)

[1]dw = dry weight.
[2]Test refers to MON 88302 (Herbicide-Treated).
[3]Mean (S.E.) = least-square mean (standard error).
[4]Control refers to the non-biotechnology derived, conventional control (Ebony).
[5]With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits set to zero.

Listing 1. Components Excluded from Summary and Analysis Due to Excessive Observations Below the Assay's Limit of Quantitation

Tissue	Category	Component	(N) Below LOQ	(N) Total	(%)
Seed	Fatty Acid	10:0 Capric	123	123	100.0
		12:0 Lauric	123	123	100.0
		14:0 Myristic	123	123	100.0
		14:1 Myristoleic	123	123	100.0
		15:0 Pentadecanoic	123	123	100.0
		15:1 Pentadecenoic	123	123	100.0
		17:0 Heptadecanoic	123	123	100.0
		17:1 Heptadecenoic	123	123	100.0
		18:3 gamma-Linolenic	123	123	100.0
		18:4 Octadecatetraenoic	123	123	100.0
		20:2 Eicosadienoic	119	123	96.7
		20:3 Eicosatrienoic	123	123	100.0

Listing 1. Components Excluded from Summary and Analysis Due to Excessive Observations Below the Assay's Limit of Quantitation (cont.)

Tissue	Category	Component	(N) Below LOQ	(N) Total	(%)
Seed	Fatty Acid	20:4 Arachidonic	123	123	100.0
		20:5 Eicosapentaenoic	123	123	100.0
		22:1 Erucic	82	123	66.7
		22:5 Docosapentaenoic	123	123	100.0
		22:6 Docosahexaenoic	123	123	100.0
		8:0 Caprylic	123	123	100.0
	Mineral	Sodium	118	123	95.9

Listing 2. Components with Observations Below the Assay's Limit of Quantitation Not Excluded from Summaries and Analysis

Tissue	Category	Component	Substance	Site	Rep	Original Value	Value Assigned
Seed	Fatty Acid	24:0 Lignoceric	Croplan 601	SKSA	4	< 0.0400	0.020
			DSV Ability	MBNW	4	< 0.0400	0.020
			Ebony	MNCA	2	< 0.0400	0.020
				NDVA	2	< 0.0400	0.020
				SKSA	2	< 0.0400	0.020
			Hyola 401	MBPL	3	< 0.0400	0.020
				SKSA	1	< 0.0400	0.020
			MON 88302 (Herbicide-Treated)	MNCA	3	< 0.0400	0.020
			MON 88302 (Untreated)	MNCA	3	< 0.0400	0.020
				MNCA	4	< 0.0400	0.020
				NDVA	1	< 0.0400	0.020
				NDVA	3	< 0.0400	0.020
			Q2	MBNW	3	< 0.0400	0.020
				MBNW	4	< 0.0400	0.020
				MNCA	4	< 0.0400	0.020
				NDVA	3	< 0.0400	0.020
				SKSA	3	< 0.0400	0.020

Listing 2. Components with Observations Below the Assay's Limit of Quantitation Not Excluded from Summaries and Analysis (cont.)

Tissue	Category	Component	Substance	Site	Rep	Original Value	Value Assigned
Seed	Fatty Acid	24:0 Lignoceric	Q2	SKSA	4	< 0.0400	0.020
			SP Armada	MBPL	2	< 0.0400	0.020
				MBPL	4	< 0.0400	0.020
				SKSA	2	< 0.0400	0.020
				SKSA	4	< 0.0400	0.020
			SValof Senator	MBNW	4	< 0.0400	0.020
			SValof Sponsor	MNCA	3	< 0.0400	0.020
		24:1 Nervonic	Croplan 601	NDVA	1	< 0.0400	0.020
				SKSA	4	< 0.0400	0.020
			DSV Ability	MBNW	4	< 0.0400	0.020
			Ebony	MBNW	4	< 0.0400	0.020
				MNCA	2	< 0.0400	0.020
				NDVA	2	< 0.0400	0.020
				SKSA	2	< 0.0400	0.020
			Hyola 401	MBPL	3	< 0.0400	0.020
				NDVA	1	< 0.0400	0.020
				NDVA	2	< 0.0400	0.020

Listing 2. Components with Observations Below the Assay's Limit of Quantitation Not Excluded from Summaries and Analysis (cont.)

Tissue	Category	Component	Substance	Site	Rep	Original Value	Value Assigned
Seed	Fatty Acid	24:1 Nervonic	Hyola 401	SKSA	1	< 0.0400	0.020
				SKSA	3	< 0.0400	0.020
			MON 88302 (Herbicide-Treated)	MBNW	1	< 0.0400	0.020
				MNCA	3	< 0.0400	0.020
			MON 88302 (Untreated)	MBNW	4	< 0.0400	0.020
				MNCA	3	< 0.0400	0.020
				MNCA	4	< 0.0400	0.020
				NDVA	1	< 0.0400	0.020
				NDVA	3	< 0.0400	0.020
			Q2	MBNW	3	< 0.0400	0.020
				MBNW	4	< 0.0400	0.020
				MNCA	4	< 0.0400	0.020
				NDVA	3	< 0.0400	0.020
				SKSA	3	< 0.0400	0.020
				SKSA	4	< 0.0400	0.020
			SP Armada	MBPL	2	< 0.0400	0.020
				MBPL	4	< 0.0400	0.020

Listing 2. Components with Observations Below the Assay's Limit of Quantitation Not Excluded from Summaries and Analysis (cont.)

Tissue	Category	Component	Substance	Site	Rep	Original Value	Value Assigned
Seed	Fatty Acid	24:1 Nervonic	SP Armada	SKSA	2	< 0.0400	0.020
				SKSA	4	< 0.0400	0.020
			SValof Senator	MBNW	4	< 0.0400	0.020
				MNCA	3	< 0.0400	0.020
			SValof Sponsor	MBNW	1	< 0.0400	0.020
				MNCA	3	< 0.0400	0.020
				MNCA	4	< 0.0400	0.020