

Study Title

Compositional Analyses of Soybean Seed, Soybean Meal, Soybean Oil, Soybean Protein Isolate, and Soybean Lecithin Derived from Stearidonic Acid-Containing Soybeans, MON 87769, Grown in the United States during 2006

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Study Completed On

January 9, 2009

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Laboratory Project ID

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Covance Study No. 6103-722**

The text below applies only to use of the data by the United States Environmental Protection Agency (US 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.

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Monsanto Company

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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 and were not 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 analytes 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.

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1-9-2009

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9 Jan 2009

Date

Quality Assurance Statement

Study Title: Compositional Analyses of Soybean Seed, Soybean Meal, Soybean Oil, Soybean Protein Isolate, and Soybean Lecithin Derived from Stearidonic Acid-Containing Soybeans, MON 87769, Grown in the United States during 2006

Study Number: REG-07-192

Reviews conducted by the Quality Assurance Unit (QAU) confirm that the final report reflects the raw data for the portion of the study conducted by Monsanto Company, Biotechnology Regulatory Sciences.

Reviews which have been conducted by the Covance Laboratories Inc., are enclosed within the Covance sub-report and are specified on their individual QA Statement (see Appendix 1).

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

Dates of Inspection / Audit	Phase	Date Reported To:	
		Study Director	Management
12/02/2008	Raw Data and Draft Report Review	12/11/2008	12/11/2008
12/02/2008	Statistical Data and Draft Report Review	12/11/2008	12/11/2008

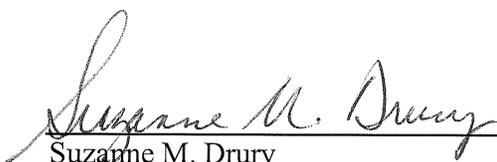
Patricia Thomas
Quality Assurance Specialist
Monsanto Regulatory

01/09/2009
Date

Study Certification

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

Signature of Final Report Approval:



Suzanne M. Drury
Study Director

9 Jan 2009

Date

Study Information (continued)

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Abbreviations

AA	amino acid
ADF	acid detergent fiber
ALA	alpha linolenic acid
DT	defatted and toasted
DW or dw	dry weight
FA	fatty acid
FW or fw	fresh weight
GLA	gamma linolenic acid
g, µg, mg, kg	gram, microgram, milligram, kilogram
LOQ	level of quantitation
NDF	neutral detergent fiber
ppm	parts per million
PRESS	predicted residual sums of squares
RBD	refined, bleached, and deodorized
SDA	stearidonic acid
SOP	standard operating procedure
T/C/R	test/control/reference
TDF	total dietary fiber
U.S.	United States

1.0 Summary

Monsanto Company has developed biotechnology derived soybean MON 87769 that produces stearidonic acid (SDA), an omega-3 fatty acid. Production of SDA in soybean seed was achieved through the introduction of genes encoding the production of *Neurospora crassa* delta-15 desaturase (NcΔ15D) and *Primula juliae* delta-6 desaturase (PjΔ6D). These two genes were driven by seed-specific promoters, resulting in the production of SDA only in soybean seeds.

The purpose of this study was to compare the composition of the SDA producing soybean, MON 87769, to the conventional control, A3525, which has background genetics similar to that of the test substance. Eight different conventional soybean varieties were also included as references to provide data for the development of a 99% tolerance interval for each component analyzed. In this study, compositional analyses were conducted on harvested seed and processed fractions including defatted and toasted (DT) meal; refined, bleached, and deodorized (RBD) oil; protein isolate; and crude lecithin, derived from MON 87769, A3525, and eight conventional reference soybean varieties, where all substances were collected from United States field trials at two sites during the 2006 growing season.

Compositional analyses of the seed samples included proximates (protein, fat, ash, moisture, and carbohydrate by calculation), acid detergent fiber (ADF), neutral detergent fiber (NDF), amino acids, fatty acids (C8-C24), trypsin inhibitors, phytic acid, lectin, isoflavones (daidzein, glycitein, and genistein), vitamin E, raffinose, and stachyose. DT meal was analyzed for proximates, ADF, NDF, amino acids, fatty acids (C8-C24), phytic acid and trypsin inhibitors. RBD oil was analyzed for fatty acids (C8-C24) and vitamin E. Protein isolate was analyzed for amino acids, fatty acids (C8-C24), and moisture. Crude lecithin was analyzed for fatty acids (C8-C24) and phosphatides. This study conformed to OECD recommendations (OECD 2001) for analysis of processed fractions derived from new soybean varieties. Since MON 87769 is altered in fatty acid composition, additional analyses of fatty acids were performed on the processed fractions. All analyses were conducted in duplicate, and values were averaged prior to statistical evaluation. The mean and range of component values across sites for each test material were compared to the control, to the tolerance interval computed for the reference materials, and to the range of established values found in the literature. In all, 255 different analytical components (68 in seed and 187 in the processed fractions) were measured. Of the evaluated components, 29 had more than 50% of the observations below the assay limit of quantitation (LOQ) in the seed and 97 had more than 50% of the observations below the assay LOQ in the processed fractions and, as a result, were excluded from the statistical analysis. Therefore, statistical assessments were provided for 129 components (39 in seed and 90 in the processed fractions).

SDA soybeans and the processed fractions derived from SDA soybeans are expected to be compositionally equivalent to conventional soybeans, except for the intended change in their fatty acid composition brought about by the introduction of the two desaturase enzymes. MON 87769 contains four additional fatty acids not present in the control substance: 18:3 gamma linolenic acid (GLA); 18:3 9c,12c,15t trans-alpha linolenic acid

(trans-ALA); 18:4 stearidonic acid (SDA); and 18:4 6c,9c,12c,15t (trans-SDA), which were evaluated in this study.

The overall data set was examined for evidence of changes biologically meaningful to food and feed safety and nutrition using a mixed model of variance, based on data from a combination of the two field sites. Statistical evaluation of the composition data involved a comparison of the seed and processed fractions from MON 87769 to a conventional control soybean substance. Statistically significant differences were determined at the 5% level of significance ($p < 0.05$). There were 129 statistical comparisons conducted between each test substance and the conventional control (39 comparisons in the seed and 90 comparisons in the processed fractions). Using the data for each component obtained from the reference substances, a 99% tolerance interval was calculated to contain, with 95% confidence, 99% of the values contained in the population of conventional soybean varieties. For those comparisons in which the test was significantly different ($p < 0.05$) from the control, the test range was then compared to the 99% tolerance interval in order to determine if the test range was within the tolerance interval and, therefore, considered to be part of the population of conventional soybean.

Data were generated and statistical analyses performed on the seed and processed fractions from MON 87769, a conventional control, and eight conventional soybean reference substances. There were no biologically meaningful differences noted for proximate, fiber, amino acids, vitamins, isoflavones, and antinutrients when the seed and processed fractions derived from the test substance, MON 87769, were compared to the conventional control soybean substance, A3525. Although, for some of these comparisons, a statistically significant difference ($p < 0.05$) was noted between the test and control substances, in those instances the composition values for the test substance were within the calculated 99% tolerance interval for the population of conventional reference substances produced at the same time and from the same fields as the test substance. Therefore, these statistically significant differences were within the natural variability expected for soybean and are not considered to be biologically meaningful from a food/feed safety and/or nutritional perspective.

Through the introduction of $\Delta 6$ and $\Delta 15$ desaturases, the fatty acid composition of MON 87769 soybean was altered to produce the omega-3 fatty acid, SDA. Given this shift in fatty acid composition, the fatty acid profile in MON 87769 seed and processed fractions were expected to differ significantly from conventional soybean. The statistically significant differences in the level of 18:2 linoleic acid in all processed fractions was expected due to the intended production of 16 – 28% of the total fatty acid content as SDA in MON 87769 seed. Consistent with the production of SDA in MON 87769, three additional fatty acids (GLA, trans-ALA, and trans-SDA) were found in MON 87769 seed and processed fractions. Trans-ALA was also found in RBD oil and protein isolate from the control substance, indicating that it is a fatty acid produced during processing, whose level varies within the various processed fraction.

These data support the conclusion that statistically significant differences ($p < 0.05$) between MON 87769 and the control were either within the natural variability characteristic of soybean or they were expected based upon the introduction of the SDA production trait. Therefore MON 87769 seed and processed fractions were considered to be compositionally equivalent to conventional soybeans except for intended differences of SDA and associated fatty acids.

2.0 Introduction

Monsanto Company has developed biotechnology derived soybean MON 87769 that produces stearidonic acid (SDA), an omega-3 fatty acid. Production of SDA in soybean MON 87769 seed was achieved through the introduction of genes encoding the production of *Neurospora crassa* delta-15 desaturase (NcΔ15D) and *Primula juliae* delta-6 desaturase (PjΔ6D). These two genes were driven by seed-specific promoters, resulting in the production of SDA only in soybean seeds.

3.0 Purpose

The purpose of this study was to compare the composition of the SDA producing soybean, MON 87769, to the conventional control, A3525, which has background genetics similar to that of the test substance. Eight different conventional soybean varieties were also included as references to provide data for the development of a 99% tolerance interval for each component analyzed. In this study, compositional analyses were conducted on harvested seed and processed fractions including defatted and toasted (DT) meal; refined, bleached, and deodorized (RBD) oil; protein isolate; and crude lecithin, derived from MON 87769, A3525, and eight commercial reference soybean varieties, where all substances were collected from United States field trials during the 2006 growing season under Production Plan 06-01-83-14 (Schottel, 2007) and processed by GLP Technologies under Processing Plan 07-PP-83-29 (Colyer, 2007).

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

4.1 Test Substance

The test substance is described below. The seed tissue and processed fractions from the test substance were evaluated in this study.

Description	Starting Seed Lot No.
MON 87769	GLP-0604-17267-S

4.2 Control Substance

The control substance was a conventional soybean variety with genetic background representative of the test substance, MON 87769, and is described below. The seed tissue and processed fractions from the control substance were evaluated in this study.

Description	Starting Seed Lot No.
A3525	GLP-0604-17278-S

4.3 Reference Substances

The reference substances were commercially available soybean varieties grown at the same locations as the test and control substances and are described below. The seed tissue and processed fractions from each reference substance were evaluated in this study.

Description	Starting Seed Lot No.	Field Site
PN93B82	GLP-0604-17260-S	IL-1
NK32Z3	GLP-0605-17389-S	IL-1
Quality Plus 365C	GLP-0605-17390-S	IL-1
Midwest 3444	GLP-0605-17391-S	IL-1
H3395	GLP-0605-17392-S	IL-2
H3802	GLP-0605-17393-S	IL-2
P93B87	GLP-0605-17394-S	IL-2
93B15	GLP-0605-17395-S	IL-2

4.4 T/C/R Substance Characterization

The identities of all processed samples were verified by the Study Director prior to their use in the study by confirming the chain-of-custody documentation. The seed samples from the test, control, and reference substances were further characterized by an event-specific PCR analysis of DNA extracted from the seed to confirm the presence or absence of the event. The presence and absence of the MON 87769 event in test and control samples, respectively, were confirmed. Characterization data, both molecular and chain-of-custody confirmation, were archived in the Monsanto Archives.

5.0 Field Trial Description

Seed of the test, control, and reference substances were collected at two field sites in the United States as detailed in Production Plan 06-01-83-14 (Schottel, 2007). All the samples at the field sites were grown under normal agronomic field conditions for their respective geographic regions. The two U.S. sites were: Site IL-1, Monmouth, IL and

Site IL-2, Carlyle, IL. Seed samples were harvested from all plots and shipped at ambient temperature to Monsanto Company, St. Louis, MO, USA. A subsample for use in compositional analyses was obtained from each bulk sample generated in the field. Each sub-sample was ground, stored in a -20°C freezer located at Monsanto Company (St. Louis, MO), pending shipment to Covance Laboratories Inc. (Madison, WI) for analyses. A bulk sample of each seed sample was shipped from Monsanto Company to GLP Technologies (Navasota, TX) for processing into DT meal, RBD oil, protein isolate and crude lecithin fractions according to Processing Plan 07-PP-83-29 (Colyer, 2007). A subsample for use in compositional analyses was obtained from each processed sample generated at GLP Technologies, and was shipped on frozen ice packs to Monsanto Company. The sample containers were relabeled at Monsanto with the following information: Monsanto study number, processing site, crop, fraction type, sample ID, material name, storage conditions, and contact person, and then shipped along with the ground seed samples to Covance Laboratories Inc. The labels on the seed samples shipped to Covance Laboratories Inc. listed the composition study number, tissue type, material name, storage conditions, and a unique sample ID number.

6.0 Analytical Methods

A total of 129 biochemical components were analyzed by Covance Laboratories Inc. Compositional analyses of the seed samples included proximates (protein, fat, ash, moisture, and carbohydrate by calculation), acid detergent fiber (ADF), neutral detergent fiber (NDF), amino acids, fatty acids (C8-C24), trypsin inhibitors, phytic acid, lectin, isoflavones (daidzein, glycitein, and genistein), vitamin E, raffinose, and stachyose. DT meal was analyzed for proximates, ADF, NDF, amino acids, fatty acids (C8-C24), phytic acid and trypsin inhibitors. RBD oil was analyzed for fatty acids (C8-C24) and vitamin E. Protein isolate was analyzed for amino acids, fatty acids (C8-C24), and moisture. Crude lecithin was analyzed for fatty acids (C8-C24) and phosphatides. All analyses were conducted in duplicate, and values were averaged prior to evaluation. 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 (Covance study number 6103-722) in Appendix 1 of this report. The Study Director approved all methods utilized in this study, prior to the start of the study.

7.0 Control of Bias

To control and/or minimize bias, the samples were analyzed in the order specified by a computer-generated randomized sample 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 compositional analyses were performed at Covance Laboratories Inc., data spreadsheets were forwarded to Monsanto Company. The data were reviewed, formatted,

and sent to Certus International, Inc. for statistical analysis. A statistical sub-report was generated by Certus and sent to Monsanto Company (see Appendix 2). The following formulas were used for re-expression of the data for statistical analysis:

Component	From (X)	To	Formula ¹
Proximates (excluding Moisture), Fiber, Phytic Acid, Raffinose, Stachyose	% FW	% DW	X/d
Isoflavones	µg/g FW	µg/g DW	X/d
Trypsin Inhibitor	TIU/mg FW	TIU/mg DW	X/d
Seed Vitamin E	mg/100g FW	mg/100g DW	X/d
Amino Acids (AA)	mg/g FW	% DW	X/(10*d)
Fatty Acids (FA)	% FW	% Total FA	(100)X _j /ΣX, 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.

Across fraction type, analytes with greater than fifty percent of observations below the assay's LOQ were excluded from summaries and analysis. Excluded analytes are presented in Table 3. Otherwise, results below the LOQ were assigned a value equal to half the quantitation limit. The following analytes were assigned a value:

Component	Units	Material	Obs. Below LOQ		Total N	LOQ	Value Assigned
			N	(%)			
Meal Fatty Acid (% Total FA)							
16:0 Palmitic	% FW	MON 87769	2	6.3	32	0.060	0.030
18:1 Oleic (total 18:1 cis)	% FW	MON 87769	2	6.3	32	0.060	0.030
18:3 Linolenic	% FW	MON 87769	2	6.3	32	0.060	0.030
Meal Antinutrient							
Trypsin Inhibitor	TIU/mg FW	A3525, H3395, MON 87769, PN93B82	7	21.9	32	1.00	0.50
RBD Oil Fatty Acid (% Total FA)							
18:2 6c,9c (Isolinoleic Acid)	% FW	Midwest 3444, NK32Z3, PN93B82	5	15.6	32	0.060	0.030
18:3 Other 18:3 Trans	% FW	93B15, H3802, MON 87769, P93B87	7	21.9	32	0.060	0.030
Protein Isolate Fatty Acid (% Total FA)							
17:0 Heptadecanoic	% FW	A3525, H3395, H3802, MON 87769, NK32Z3, PN93B82	14	43.8	32	0.0050	0.0025
18:3 9c,12c,15t (Trans ALA)	% FW	93B15, A3525, H3802, Midwest 3444, NK32Z3, P93B87, PN93B82, Quality Plus 365C	14	43.8	32	0.0050	0.0025
Lecithin Fatty Acid (% Total FA)							
17:0 Heptadecanoic	% FW	93B15, A3525, H3395, H3802, MON 87769, Midwest 3444, P93B87	16	50.0	32	0.060	0.030
20:1 Eicosenoic	% FW	A3525	4	12.5	32	0.060	0.030

For four of the fatty acids excluded from statistical analysis (GLA, trans-ALA, SDA, and trans-SDA), all of values below the LOQ were from the control and commercial

reference materials, but were measured in the test substance. Because of their presence in quantities higher than the LOQ, MON 87769 data for the above four fatty acids were retained for inclusion in the calculation of total fatty acids for use in the fatty acid composition data re-expression formula. These four fatty acids are reported as % dry weight and % total fatty acid in Table 2.

Fatty Acid	Material	(N) Below LOQ	(N) Total	(%) Below LOQ
Seed				
18:3 9c, 12c, 15t (Trans ALA)	MON 87769	0	8	0.0
	Other*	24	24	100.0
18:3 Gamma Linolenic	MON 87769	0	8	0.0
	Other*	24	24	100.0
18:4 Stearidonic	MON 87769	0	8	0.0
	Other*	24	24	100.0
Meal				
18:4 Stearidonic	MON 87769	0	8	0.0
	Other*	24	24	100.0
RBD Oil				
18:3 Gamma Linolenic	MON 87769	0	8	0.0
	Other*	24	24	100.0
18:4 6c,9c,12c,15t (Trans SDA)	MON 87769	0	8	0.0
	Other*	24	24	100.0
18:4 Stearidonic	MON 87769	0	8	0.0
	Other*	24	24	100.0
Protein Isolate				
18:3 Gamma Linolenic	MON 87769	0	8	0.0
	Other*	24	24	100.0
18:4 6c,9c,12c,15t (Trans SDA)	MON 87769	0	8	0.0
	Other*	24	24	100.0
18:4 Stearidonic	MON 87769	0	8	0.0
	Other*	24	24	100.0
Lecithin				
18:3 9c,12c,15t (Trans ALA)	MON 87769	0	8	0.0
	Other*	24	24	100.0
18:3 Gamma Linolenic	MON 87769	0	8	0.0
	Other*	24	24	100.0
18:4 Stearidonic	MON 87769	0	8	0.0
	Other*	24	24	100.0

*Other = control and commercial references

The data were assessed for potential outliers using a studentized PRESS residuals calculation. The following results had PRESS residual values outside of the ± 6 studentized PRESS residual range:

Site ID	Description	Analyte	Sample ID	Value	PRESS Std Residual
Meal Fatty Acid (% Total FA)					
IL-1	MON 87769	16:0 Palmitic	07PP8329-00050	9.5203	-6.4864
IL-1	MON 87769	16:0 Palmitic	07PP8329-00054	14.1962	6.4864
IL-1	MON 87769	18:2 9c,12c Linoleic	07PP8329-00050	30.3557	8.7037
IL-1	MON 87769	18:2 9c,12c Linoleic	07PP8329-00054	22.6635	-8.7037
IL-1	MON 87769	18:3 Linolenic	07PP8329-00050	9.5203	-6.0898
IL-1	MON 87769	18:3 Linolenic	07PP8329-00054	12.7147	6.0898
RBD Oil Fatty Acid (% Total FA)					
IL_2	H3802	16:0 Palmitic	07PP8329-00040	11.7270	7.0297

Of the fatty acids identified in the meal, both 16:0 palmitic acid values and the lower 18:2 9c, 12c linoleic acid value were extreme values and were considered outliers. Because fatty acids are presented as a percent of total fatty acids, all fatty acid results for the two affected samples (07PP8329-00050 and 07PP8329-00054) were additionally removed. The identified RBD oil fatty acid (16:0 palmitic acid) was not an extreme value, thus was not removed from further statistical analyses.

A second run of the outlier screening model on the remaining dataset identified no further possible outliers.

8.2 Statistical Methodology

At the field sites, the test, control, and reference substances were grown in single plots randomly assigned within each of three replication blocks. The compositional components for the test and control substances were statistically analyzed using a mixed model analysis of variance. Combined site analyses used the model:

$$Y_{ijk} = U + T_i + L_j + LT_{ij} + e_{ijk},$$

where Y_{ijk} = unique individual observation, U = overall mean, T_i = substance effect, L_j = random location effect, LT_{ij} = random location by substance interaction effect, and e_{ijk} = residual error.

A range of observed values from the reference substances was determined for each analytical component as presented in component tolerance intervals. Additionally, the reference substances data were used to develop population tolerance intervals. 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 conventional references

(George et al., 2004; Ridley et al., 2002). Each tolerance interval estimate was based upon one observation per unique reference substance. Because negative quantities are not possible, calculated negative lower tolerance bounds were set to zero. SAS[®] programming was used to generate all summary statistics and perform all analyses (SAS Software Release 9.1, 2002-2003). Report tables present p-values from SAS as either <0.001 or the actual value truncated to three decimals.

9.0 Results and Discussion

The composition of seed and processed fractions from the test substance, MON 87769, was analyzed and compared to a conventional control soybean variety, A3525. The compositional profile of each test, control, and reference substance was determined by evaluating 129 different analytes (39 in seed and 90 in processed fractions). A summary of the significant differences ($p < 0.05$) can be found in Table 1. For each component, least-square means and the range of observed values are presented for the test and control substances. In addition, mean differences between the test and control, the range of observed differences, 99% tolerance intervals of the differences and the significance probabilities are presented for each comparison. The overall data set was also examined for evidence of biologically meaningful changes. Each test value that had a significant difference from the control comparator ($p < 0.05$) was compared to the 99% tolerance interval generated from the reference substances in this study.

As a result of the addition of $\Delta 6$ and $\Delta 15$ desaturases, MON 87769 soybean produces stearidonic acid (SDA), an omega-3 fatty acid. In addition to the production of SDA in MON 87769, additional fatty acids (GLA, trans-SDA, and in some cases trans-ALA) were also produced in MON 87769 and were not in the control or references. Since these three fatty acids were not detected in the control substance, statistical analysis between the test and control was not possible, thus the means, standard errors, and the range of values for these fatty acids observed in MON 87769 are presented as % total fatty acid and % dry weight (when available) in Table 2.

9.1 Compositional Comparisons of Seed from MON 87769 and Conventional Control

Statistical analyses for MON 87769 from across sites showed statistically significant differences for ten analytes in the seed (Table 1). Details of the statistical observations are as follows: In the seed of the test substance, alanine, arginine, tryptophan, 16:0 palmitic acid, 18:0 stearic acid, NDF, carbohydrates, fat, daidzein, and genistein were found to be statistically different from the control. The magnitude of differences of the test substance versus the control substance for all of the analyses with the exception of the isoflavone analyses was very small, all less than 15%. The mean and range of values obtained from MON 87769 across sites were all within the 99% tolerance interval for the

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population of conventional reference substances, therefore these differences were not considered to be biologically meaningful from a food/feed safety and/or nutritional perspective.

Stearidonic acid (SDA) was present in the seed of MON 87769 with levels ranging from 16.67 – 28.64% of the total fatty acid content (Table 2). In addition to the presence of SDA in MON 87769, two additional fatty acids were also produced in MON 87769 seed that were not in the control (GLA and trans-ALA). The range of levels of GLA and trans-ALA measured in MON 87769 were 6.22 – 7.38 and 0.39 – 0.45 % of total fatty acids, respectively. Since these three fatty acids were not detected in the control substance, statistical analysis between the test and control was not possible, thus the means, standard errors, and the range of values for these fatty acids observed in MON 87769 are presented as % dry weight and % total fatty acid in Table 2. Given this intended shift in fatty acid metabolism, the fatty acid profile in MON 87769 seed was expected to differ from conventional soybean. Thus, the levels of 18:2 linoleic acid in MON 87769 ranged from 20.66 – 31.36 (mean = 26.00) % total fatty acids, while the control, A3525, had levels that ranged from 55.52 – 56.37 (mean = 55.93) % total fatty acids (Appendix 2, Table 1). Although not detected as a statistical difference in this study, this large change in fatty acid levels was important to highlight. Therefore, these differences were either within the natural variability characteristic of soybeans, or they were expected based upon the trait and were not considered to be biologically meaningful from a food/feed safety and/or nutritional perspective.

9.2 Compositional Comparisons of DT Meal from MON 87769 and Conventional Control

Statistical analyses for MON 87769 from across sites showed statistically significant differences for ten analytes in the defatted and toasted (DT) meal (Table 1). Details of the statistical observations are as follows: In the DT meal of MON 87769, aspartic acid, glutamic acid, histidine, tryptophan, 16:0 palmitic acid, 18:1 oleic acid, 18:2 linoleic acid, 18:3 linolenic acid, ADF, and carbohydrates were found to be statistically different ($p < 0.05$) from the control DT meal. The mean and range of values obtained from MON 87769 across sites were all within the 99% tolerance interval for the population of conventional reference substances except for an expected decrease in 18:2 linoleic acid.

Defatted toasted meal typically has very low levels of oil (<3% in the current study population) after processing. The fatty acid composition of this residual oil in meal was analyzed to determine if changes occurred in the fatty acid composition in the meal. Stearidonic acid was present in the DT meal of MON 87769, with levels ranging from 21.47 - 41.08 % of the total fatty acid content (Table 2). As expected, the levels of 18:2 linoleic acid decreased from a mean of 58.32 (range 57.79 - 58.85) % of total fatty acids in the control to a mean of 34.14 (range 34.57 - 34.66) % of total fatty acids in the test substance (Appendix 2, Table 2). Palmitic, oleic, and linolenic acid also were statistically different between the test and control. The magnitude of change for these three fatty acids was relatively small (<20% mean difference). The range of values for these three fatty acids was also within the tolerance interval of the conventional reference

substances. Therefore, these differences were either within the natural variability characteristic of soybeans, or they were expected based upon the trait and were not considered to be biologically meaningful from a food/feed safety and/or nutritional perspective.

9.3 Compositional Comparisons of RBD Oil from MON 87769 and Conventional Control

Statistical analyses for MON 87769 from across sites showed a statistically significant difference for 16:0 palmitic acid, 18:0 stearic acid, 18:3 9c, 12c, 15t trans-ALA, 24:0 lignoceric acid, and vitamin E in the refined, bleached and deodorized (RBD) oil (Table 1). The mean and range of values obtained from MON 87769 across sites were all within the 99% tolerance interval for the population of conventional reference substances except for an increase in 18:3 9c, 12c, 15t trans-ALA (mean = 0.51% of total fatty acids). As shown in Table 1, trans-ALA was also detected in the control oil indicating that it is a fatty acid produced during processing, whose level varies with the processed fraction.

Stearidonic acid was present in the RBD oil of MON 87769 at levels ranging from 16.88 – 28.35% of the total fatty acid content (Table 2). In addition to the increased levels of SDA in MON 87769, two additional fatty acids were also present in MON 87769 RBD oil that were not in the control (GLA and trans-SDA). The range of levels of GLA and trans-SDA measured in MON 87769 were 6.19 – 7.19, and 0.17 – 0.39% of the total fatty acids, respectively. Since these two fatty acids were not detected in the control substance, statistical analysis between the test and control was not possible, thus the means, standard errors, and the range of values for these fatty acids observed in MON 87769 are presented as % total fatty acid in Table 2. The magnitude of change for these two fatty acids was relatively small. As expected based upon the composition of the MON 87769 seed, the levels of 18:2 linoleic acid in MON 87769 ranged from 20.66 - 30.92 (mean 25.66) % total fatty acids, while the control, A3525, had levels that ranged from 54.82 - 55.87 (mean 55.38) % total fatty acids (Appendix 2, Table 3). Although not detected as a statistical difference in this study, this large change in fatty acid levels was important to highlight. Therefore, these differences were either within the natural variability characteristic of soybeans, or they were expected based upon the trait and were not considered to be biologically meaningful from a food/feed safety and/or nutritional perspective.

9.4 Compositional Comparisons of Protein Isolate from MON 87769 and Conventional Control

Protein isolate is derived from removal of all non-protein substances from defatted soy flour. The protein isolate fraction has very low levels of oil (3.39%) present after processing (http://www.nal.usda.gov/fnic/foodcomp/cgi-bin/list_nut_edit.pl). In addition to the typical analysis of amino acids and moisture, the fatty acid composition of this small amount of residual oil in the protein isolate was analyzed to determine if changes occurred in the fatty acid composition of the protein isolate. Statistical analyses for MON 87769 from across sites showed a statistically significant difference for leucine,

18:2 linoleic acid, 18:3 9c, 12c, 15t trans-ALA, and 18:3 linolenic acid in the protein isolate (Table 1). The mean and range of values obtained from MON 87769 across sites for leucine were within the 99% tolerance interval for the population of conventional reference substances, therefore this difference was not considered to be biologically meaningful from a nutritional perspective.

Stearidonic acid levels in the protein isolate of MON 87769 ranged from 10.44 – 20.28% of the total fatty acid content (Table 2). In addition to the increased levels of SDA in MON 87769 two additional fatty acids were also present in MON 87769 protein isolate that were not in the control (GLA and trans-SDA). The range of levels of GLA and trans-SDA measured in MON 87769 were 4.50 – 6.82 and 0.22 – 0.37% of total fatty acids, respectively. The magnitude of change for these two fatty acids was relatively small. These increases in GLA and trans-SDA as well as the increases in 18:3 9c, 12c, 15t trans-ALA, and 18:3 linolenic acid and a decrease in 18:2 linoleic acid (Table 1) are expected as part of the compensation by the soybean to increases in SDA. Similar compensatory changes were observed in the DT meal and RBD oil. Therefore, these differences were expected based upon the trait and were not considered to be biologically meaningful from a food/feed safety and/or nutritional perspective.

9.5 Compositional Comparisons of Crude Lecithin from MON 87769 and Conventional Control

Statistical analyses for MON 87769 from across sites showed statistically significant differences ($p < 0.05$) for two fatty acids in the crude lecithin, 20:0 arachidic acid and 24:0 lignoceric acid (Table 1). The mean and range of values obtained from MON 87769 across sites were all within the 99% tolerance interval for the population of conventional reference substances. No statistically significant differences were observed in the phosphatide levels in crude lecithin. The level of linoleic acid in MON 87769 ranged from 22.06 – 34.41 (mean = 28.21) % total fatty acids, while the control, A3525, had levels that ranged from 57.3 – 58.67 (mean = 57.98) % total fatty acids (Appendix 2, Table 5). Although not detected as a statistical difference in this study, this large change in fatty acid levels was important to highlight.

Stearidonic acid was found in the crude lecithin of MON 87769, with levels ranging from 12.55 – 22.16% of the total fatty acid content (Table 2). In addition to the increased levels of SDA in MON 87769, two additional fatty acids were also produced in MON 87769 crude lecithin that were not in the control (GLA and trans-ALA). The range of levels of GLA and trans-ALA measured in MON 87769 were 5.37 – 6.45, and 0.46 – 0.64% of total fatty acids, respectively. These fatty acid differences in lecithin are consistent with observations for other processed fractions, are expected based upon the trait and are not considered biologically meaningful from a nutritional perspective.

10.0 Conclusions

In conclusion, data were generated and statistical analyses performed on the seed and processed fractions from MON 87769, a conventional control, and eight conventional

soybean reference substances. There were no biologically meaningful differences noted for proximates, fiber, amino acids, vitamins, isoflavones and antinutrients when the seed and processed fractions derived from the test substance, MON 87769, was compared to the conventional control soybean substance, A3525. Although, for some of these comparisons, a statistically significant difference ($p < 0.05$) was noted, in those instances the composition values for the test substance were within the calculated 99% tolerance interval for the population of conventional reference substances produced at the same time and from the same fields as the test substance. Therefore, these statistically significant differences were within the natural variability expected for soybean and are not considered to be biologically meaningful from a food/feed safety and/or nutritional perspective.

Through the introduction of the $\Delta 6$ and $\Delta 15$ desaturases, the fatty acid composition of MON 87769 has been altered to produce the omega-3 fatty acid, SDA. Given this shift in fatty acid metabolism, the fatty acid profile in MON 87769 seed and processed fractions were expected to differ significantly from conventional soybean. During the processing of soybeans to produce the fractions analyzed, the great majority of the fatty acids, including SDA, are extracted into the RBD oil fraction. A small amount of the fatty acids/oils present in the seed partition into the other non-oil fractions. Thus, in addition to the typical analysis done on DT meal, protein isolate, and lecithin fractions fatty acid analyses were also conducted. Similar changes were seen for the other processed fractions and seed but these were not statistically significant. Consistent with the production of SDA in MON 87769, three additional fatty acids (GLA, trans-ALA, and trans-SDA) were seen in MON 87769 seed and processed fractions. Trans-ALA was also found in RBD oil and protein isolate of the control indicating that it is a fatty acid normally produced during processing of soybeans whose level varies with the processed fraction.

These data support the conclusion that statistically significant differences ($p < 0.05$) between MON 87769 and the control were either within the natural variability characteristic of soybean or they were expected based upon the trait and therefore were not considered to be biologically meaningful from a food/feed safety and/or nutritional perspective. Therefore MON 87769 seed and processed fractions were considered to be compositionally equivalent to conventional soybeans except for intended differences in the fatty acid profile due to the presence of SDA and GLA.

11.0 References

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12.0 Protocol Amendments/Deviations

The following amendments were added to the study protocol and had no impact on the study:

Amendment 1. Fatty acid profile was amended to incorporate additional fatty acids up to C24 when using the FALT method at Covance.

Amendment 2. Analyte list was amended to include carbohydrate calculation which was inadvertently omitted from the original list of analytes.

Table 1. Summary of Differences (p<0.05) for the Comparison of Soybean Component Levels for Test (MON 87769) vs. the Conventional Control (A3525) and Commercial Reference Substances

Component (Units) ¹	MON 87769 Mean	A3525 Mean	Mean Difference (Test minus Control)		Test Range	Commercial Tolerance Interval ²
			Mean Difference (% of A3525)	Signif. (p-Value)		
Seed Amino Acid (% DW)						
Alanine (% DW)	1.77	1.72	2.53	0.008	[1.72 - 1.80]	[1.53, 1.87]
Arginine (% DW)	3.40	3.18	6.93	0.020	[3.13 - 3.72]	[2.32, 3.84]
Tryptophan (% DW)	0.52	0.49	4.78	<0.001	[0.51 - 0.53]	[0.42, 0.56]
Seed Fatty Acid (% Total FA)						
16:0 Palmitic (% Total FA)	12.38	11.68	5.97	0.012	[12.36 - 12.40]	[7.70, 13.58]
18:0 Stearic (% Total FA)	4.29	4.16	3.29	0.008	[4.24 - 4.37]	[3.15, 5.20]
Seed Fiber						
Neutral Detergent Fiber (% DW)	14.53	16.86	-13.81	0.020	[13.44 - 15.96]	[9.49, 22.92]
Seed Proximate						
Carbohydrates (% DW)	35.48	36.88	-3.78	0.019	[34.71 - 35.99]	[31.88, 39.97]
Fat (% DW)	18.19	17.53	3.73	0.048	[16.60 - 19.55]	[12.90, 25.93]
Seed Isoflavone						
Daidzein (µg/g DW)	1023.92	1490.99	-31.33	0.040	[906.80 - 1155.04]	[0, 2040.66]
Genistein (µg/g DW)	621.84	912.76	-31.87	0.047	[545.80 - 694.10]	[184.57, 1380.83]
Meal Amino Acid (% DW)						
Aspartic Acid (% DW)	6.10	6.00	1.68	0.006	[6.05 - 6.13]	[5.21, 6.97]
Glutamic Acid (% DW)	9.79	9.58	2.25	0.002	[9.78 - 9.81]	[8.21, 11.33]

Table 1. Summary of Differences (p<0.05) for the Comparison of Soybean Component Levels for Test (MON 87769) vs. the Conventional Control (A3525) and Commercial Reference Substances (cont.)

Component (Units) ¹	MON 87769 Mean	A3525 Mean	Mean Difference (Test minus Control)		Test Range	Commercial Tolerance Interval ²
			Mean Difference (% of A3525)	Signif. (p-Value)		
Meal Amino Acid (% DW)						
Histidine (% DW)	1.42	1.40	1.46	0.017	[1.41 - 1.43]	[1.28, 1.57]
Tryptophan (% DW)	0.68	0.67	1.75	0.006	[0.66 - 0.70]	[0.57, 0.77]
Meal Fatty Acid (% Total FA)						
16:0 Palmitic (% Total FA)	14.25	12.83	10.99	<0.001	[14.08 - 14.41]	[9.13, 14.71]
18:1 Total 18:1 Cis (% Total FA)	16.85	17.63	-4.46	0.028	[17.17 - 17.25]	[13.11, 25.57]
18:2 9c,12c Linoleic (% Total FA)	34.14	58.32	-41.45	<0.001	[34.57 - 34.66]	[54.41, 63.54]
18:3 Linolenic (% Total FA)	13.14	11.22	17.13	<0.001	[12.19 - 12.20]	[3.82, 15.72]
Meal Fiber						
Acid Detergent Fiber (% DW)	5.18	4.52	14.57	0.014	[4.93 - 5.46]	[1.79, 7.28]
Meal Proximate						
Carbohydrates (% DW)	38.00	40.05	-5.13	0.003	[37.49 - 38.38]	[28.99, 48.21]
RBD Oil Fatty Acid (% Total FA)						
16:0 Palmitic (% Total FA)	12.10	11.48	5.34	<0.001	[11.98 - 12.23]	[7.68, 13.21]
18:0 Stearic (% Total FA)	4.18	4.08	2.41	0.010	[4.13 - 4.20]	[3.00, 5.17]
18:3 9c,12c,15t (Trans ALA) (% Total FA)	0.51	0.14	258.16	0.035	[0.47 - 0.54]	[0, 0.24]
24:0 Lignoceric (% Total FA)	0.093	0.12	-24.19	<0.001	[0.076 - 0.11]	[0, 0.26]

Table 1. Summary of Differences (p<0.05) for the Comparison of Soybean Component Levels for Test (MON 87769) vs. the Conventional Control (A3525) and Commercial Reference Substances (cont.)

Component (Units) ¹	MON 87769 Mean	A3525 Mean	Mean Difference (Test minus Control)		Test Range	Commercial Tolerance Interval ²
			Mean Difference (% of A3525)	Signif. (p-Value)		
RBD Oil Vitamin						
Vitamin E (mg/100g FW)	8.61	7.14	20.71	<0.001	[6.56 - 10.90]	[0, 29.82]
Protein Isolate Amino Acid (% DW)						
Leucine (% DW)	7.28	7.47	-2.54	0.044	[7.13 - 7.37]	[6.62, 8.11]
Protein Isolate Fatty Acid (% Total FA)						
18:2 9c,12c Linoleic (% Total FA)	23.62	48.89	-51.70	0.045	[18.07 - 30.86]	[34.57, 63.34]
18:3 9c,12c,15t (Trans ALA) (% Total FA)	0.62	0.19	223.50	<0.001	[0.51 - 0.72]	[0, 0.37]
18:3 Linolenic (% Total FA)	11.01	7.12	54.64	<0.001	[9.60 - 12.55]	[3.77, 10.13]
Lecithin Fatty Acid (% Total FA)						
20:0 Arachidic (% Total FA)	0.29	0.25	15.71	0.036	[0.28 - 0.31]	[0.19, 0.35]
24:0 Lignoceric (% Total FA)	0.17	0.20	-16.07	0.049	[0.17 - 0.18]	[0.078, 0.35]

¹DW = dry weight; FW = fresh weight; FA = fatty acid.

²With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits were set to zero.

Table 2. Statistical Summary of Combined Site Soybean 18:3 9c,12c,15t (Trans ALA), 18:3 Gamma Linolenic, 18:4 6c,9c,12c,15t (Trans SDA) and 18:4 Stearidonic Fatty Acid Content for Test (MON 87769) where the Majority of Only the Test Samples were Above the Assay's Limit of Quantitation

Analytical Component	(% Total FA ¹)		(% DW)	
	MON 87769 Mean (S.E.)	MON 87769 Range	MON 87769 Mean (S.E.)	MON 87769 Range
Seed				
18:3 9c, 12c, 15t (Trans ALA)	0.41 (0.014)	[0.39 - 0.45]	0.072 (0.0020)	[0.066 - 0.074]
18:3 Gamma Linolenic	6.80 (0.30)	[6.22 - 7.38]	1.19 (0.0085)	[1.17 - 1.20]
18:4 Stearidonic	22.83 (3.30)	[16.67 - 28.64]	3.95 (0.42)	[3.13 - 4.73]
Meal				
18:4 Stearidonic	30.15 (4.97)	[21.47 - 41.08]	0.23 (0.044)	[0.13 - 0.35]
RBD Oil				
18:3 Gamma Linolenic	6.68 (0.26)	[6.19 - 7.19]	--	--
18:4 6c,9c,12c,15t (Trans SDA)	0.26 (0.052)	[0.17 - 0.39]	--	--
18:4 Stearidonic	22.62 (3.08)	[16.88 - 28.35]	--	--
Protein Isolate				
18:3 Gamma Linolenic	5.50 (0.51)	[4.50 - 6.82]	0.19 (0.011)	[0.16 - 0.21]
18:4 6c,9c,12c,15t (Trans SDA)	0.30 (0.034)	[0.22 - 0.37]	0.011 (0.00088)	[0.0089 - 0.013]
18:4 Stearidonic	14.62 (2.39)	[10.44 - 20.28]	0.51 (0.062)	[0.37 - 0.64]
Lecithin				
18:3 9c,12c,15t (Trans ALA)	0.55 (0.049)	[0.46 - 0.64]	--	--
18:3 Gamma Linolenic	5.91 (0.30)	[5.37 - 6.45]	--	--
18:4 Stearidonic	17.44 (2.70)	[12.55 - 22.16]	--	--

¹FA=Fatty Acid; DW = dry weight; S.E. = standard error.

Appendix 1. Covance Laboratories Inc. Analytical Sub-report

The following 110 pages are the analytical sub-report
Pages 29 - 138



Final Sub-Report

Study Title	Compositional Analyses of Soybean Seed, Soybean Meal, Soybean Oil, Soybean Protein Isolate, and Soybean Lecithin Derived from Stearidonic Acid-Containing Soybeans, MON 87769, Grown in the United States during 2006
Sponsor	Monsanto Company Biotechnology Regulatory Affairs 800 North Lindbergh Blvd. St. Louis, MO 63167
Study Director	Suzanne M. Drury Monsanto Company
Compositional Analysis Testing Facility	Covance Laboratories Inc. 3301 Kinsman Blvd. Madison, WI 53704
Covance Principal Investigator	Kathleen D. Miller
Monsanto Study Number	REG-07-192
Covance Study Number	6103-722
Sub-Report Issued	12 December, 2008
Page Number	1 of 110

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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		Phase	Date Reported to PI and PI Management	Date Reported to SD and SD Management
From	To			
20 Nov 2007	20 Nov 2007	Analytical Chemistry	20 Nov 2007	03 Dec 2008
15 Feb 2008	19 Feb 2008	Draft Report and Data Review	19 Feb 2008	03 Dec 2008
03 Mar 2008	06 Mar 2008	Revised Draft Report and Data Review	06 Mar 2008	03 Dec 2008
20 Mar 2008	20 Mar 2008	Revised Draft Report Review	20 Mar 2008	03 Dec 2008



Representative
Quality Assurance Unit

12 Dec 08

Date

SIGNATURE

Kathleen D. Miller

Kathleen D. Miller
Principal Investigator
Food and Drug Analysis
Covance Laboratories Inc.

15 Dec 08

Date

STUDY IDENTIFICATION

Test Substance:

MON 87769

Monsanto Study Number:

REG-07-192

Sponsor:

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Study Timetable

Study Initiation Date:	29 October, 2007
Study Completion Date:	12 December, 2008

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Timothy H. Valley
Manager

INTRODUCTION

The purpose of this portion of the study was to compare the composition of the stearidonic acid (SDA) producing soybean, MON 87769, with a conventional control variety, A3525. In this study, compositional analyses were conducted on harvested seed and processed fractions including meal, oil, protein isolate, and lecithin, derived from MON 87769, A3525, and eight commercial reference soybean varieties.

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 (if applicable) were not listed in the protocol but are listed in the sub-report, not characterized according to GLP standards, and no reserve samples were retained from each batch.
2. Storage stability 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)
- PCCalc (result calculation program)
- 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, if applicable)
- 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 87769. The seed tissue and processed fractions were evaluated in this portion of the study. The test substance was identified as follows:

Description	Starting Seed Lot No.
MON 87769	GLP-0604-17267-S

Control Substance

The control substance was a conventional soybean material A3525. The seed tissue and processed fractions from the control substance were evaluated in this portion of the study. The control substance was identified as follows:

Description	Starting Seed Lot No.
A3525	GLP-0604-17278-S

Reference Substances

The reference substances were conventional soybean materials. The seed tissue and processed fractions from each reference substance were evaluated in this portion of the study. The reference substances were identified as follows:

Description	Starting Seed Lot No.	Field Site
PN93B82	GLP-0604-17260-S	IL-1
NK32Z3	GLP-0605-17389-S	IL-1
Quality Plus 365C	GLP-0605-17390-S	IL-1
Midwest 3444	GLP-0605-17391-S	IL-1
H3395	GLP-0605-17392-S	IL-2
H3802	GLP-0605-17393-S	IL-2
P93B87	GLP-0605-17394-S	IL-2
93B15	GLP-0605-17395-S	IL-2

Appropriate analytical reference standards were used in each assay for the analytical procedures and equipment calibrations. See Appendix A for reference standard identification (if applicable).

Characterization of Test, Control, and Reference Substances

Information on the characterization that defined the test/control/reference (T/C/R) seed was the responsibility of the Sponsor.

Storage Retention

Upon receipt the samples were stored in a freezer set to maintain $-20 \pm 10^{\circ}\text{C}$. Reference standards were stored according to vendor specifications.

Disposition

Any remaining prepared dilutions or extractions of the samples (if applicable) will be discarded at Covance. After the samples are analyzed, all excess samples will be retained until notified of final disposition by the Sponsor.

Remaining reference standards may be used for other testing.

Retain Samples

Retain samples of the seed was the responsibility of 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 the Sponsor.

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 seed samples:

Analyte	Method Mnemonic¹
Proximates	
Moisture	M100
Protein	PGEN
Fat	FSOX
Ash	ASHM
Acid detergent fiber	ADF
Neutral detergent fiber	NDFE
Amino acid composition	TAA5
Fatty acid profile (C8-C24)	FALT
Trypsin Inhibitors	TRIP
Phytic acid	PHYT
Lectins	LECT
Isoflavones	ISOF
Vitamin E (alpha-tocopherol)	LCAT
Stachyose	SUGT
Raffinose	SUGT

¹Analytical methods were kept on file at Covance Laboratories Inc. Carbohydrate (CHO) values were estimated by calculation.

The following analyses were performed on meal samples:

Analyte	Method Mnemonic¹
Proximates	
Moisture	M100
Protein	PGEN
Fat	FSOX
Ash	ASHM
Acid detergent fiber	ADF
Neutral detergent fiber	NDFE
Amino Acids	TAA5
Fatty acid profile (C8-C24)	FALT
Phytic acid	PHYT
Trypsin Inhibitor	TRIP

¹Analytical methods were kept on file at Covance Laboratories Inc. Carbohydrate (CHO) values were estimated by calculation.

The following analyses were performed on RBD (refined, bleached, and deodorized) oil samples:

Analyte	Method Mnemonic¹
Fatty Acid Profile (C8-C24)	FALT
Vitamin E (alpha-tocopherol)	LCAT

¹Analytical methods were kept on file at Covance Laboratories Inc.

The following analyses were performed on soybean protein isolate samples:

Analyte	Method Mnemonic¹
Amino Acids	TAA5
Moisture	M100
Fatty Acid Profile (C8-C24)	FALT

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

The following analyses were performed on crude lecithin samples:

Analyte	Method Mnemonic¹
Phosphatides	LPLC
Fatty Acid Profile (C8-C24)	FALT

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

The samples were analyzed in duplicate unless otherwise determined by Covance methods and/or SOPs. A minimum frequency of 10% 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 this portion of the project, including (if applicable) 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 returned to Monsanto Company, upon request by the Sponsor. 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.

The supporting records retained at Covance, but not archived with the study data, include the following items:

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 assay reference standards

RESULTS

The duplicate results for seed, meal, oil, protein isolate, and crude lecithin analyses are presented in Tables 1 through 5, respectively. All of the results were on a fresh-weight basis and were deemed acceptable.

Table 1
Compositional Analyses
of Soybean Seed

Monsanto Sample ID	06018314-00005	06018314-00006	06018314-00007
Lot Number	GLP-0604-17278-S	GLP-0604-17278-S	GLP-0604-17260-S
Material Name	A3525	A3525	PN93B82
Covance LIMS Number	71100196	71100201	71100194
Proximate (%)			
Moisture	7.12	7.92	7.53
Moisture	7.14	7.99	7.56
Protein	37.7	38.8	38.8
Protein	38.2	38.8	37.1
Total Fat	15.5	14.7	17.4
Total Fat	15.5	14.7	17.1
Ash	4.98	4.56	4.72
Ash	4.91	4.61	4.85
Carbohydrates	34.7	34.0	31.6
Carbohydrates	34.3	33.9	33.4
Acid Detergent Fiber (%)	14.5	16.1	13.2
Acid Detergent Fiber (%)	14.9	17.4	13.7
Neutral Detergent Fiber (%)	14.3	14.3	14.3
Neutral Detergent Fiber (%)	14.8	14.5	13.1
Phytic Acid (%)	1.16	0.949	1.13
Phytic Acid (%)	1.20	0.968	1.11
Lectin (H.U./mg)*	1.86	1.41	0.733
Lectin (H.U./mg)*	2.40	0.826	0.706
Raffinose (%)	0.333	0.302	0.384
Raffinose (%)	0.334	0.314	0.398
Stachyose (%)	2.86	2.52	2.47
Stachyose (%)	2.83	2.62	2.54
Trypsin Inhibitor (TIU/mg)**	21.6	19.5	36.5
Trypsin Inhibitor (TIU/mg)**	25.9	18.7	35.5
Vitamin E (mg/100g)	0.802	0.846	0.666
Vitamin E (mg/100g)	0.789	0.839	0.646
Isoflavones (µg/g)			
Daidzein	1360	1290	1090
Daidzein	1620	1300	1010
Glycitein	79.3	70.3	122
Glycitein	170	90.1	76.2
Genistein	864	844	835
Genistein	896	830	848

* H.U. - Hemagglutinating Unit

**TIU - Trypsin Inhibitor Unit

Table 1 (Continued)
Compositional Analyses
of Soybean Seed

Monsanto Sample ID	06018314-00005	06018314-00006	06018314-00007
Lot Number	GLP-0604-17278-S	GLP-0604-17278-S	GLP-0604-17260-S
Material Name	A3525	A3525	PN93B82
Covance LIMS Number	71100196	71100201	71100194
Amino Acids (mg/g)			
Aspartic Acid	43.3	42.9	42.8
Aspartic Acid	42.7	43.0	43.8
Threonine	14.2	14.2	14.2
Threonine	14.2	14.3	14.6
Serine	19.9	20.3	20.7
Serine	19.7	20.4	21.0
Glutamic Acid	69.3	68.9	69.6
Glutamic Acid	68.1	69.0	70.9
Proline	19.0	18.3	18.6
Proline	19.0	18.6	18.8
Glycine	16.4	16.2	16.3
Glycine	16.2	16.2	16.7
Alanine	16.2	16.1	15.9
Alanine	16.1	16.0	16.3
Cystine	5.88	5.61	5.94
Cystine	5.79	5.58	5.85
Valine	18.8	17.9	18.1
Valine	18.4	18.0	18.5
Methionine	5.62	5.46	5.50
Methionine	5.46	5.56	5.43
Isoleucine	17.8	17.0	17.0
Isoleucine	17.4	17.1	17.4
Leucine	29.2	28.8	29.1
Leucine	28.9	29.0	29.6
Tyrosine	13.1	13.1	13.2
Tyrosine	13.0	13.1	13.4
Phenylalanine	19.8	19.6	19.6
Phenylalanine	19.5	19.7	20.1
Lysine	24.8	24.1	24.1
Lysine	24.5	24.3	24.8
Histidine	10.1	9.77	10.0
Histidine	9.98	9.87	10.3
Arginine	30.8	30.7	30.2
Arginine	30.5	30.7	31.1
Tryptophan	4.54	4.56	4.78
Tryptophan	4.41	4.48	4.74

Table 1 (Continued)
Compositional Analyses
of Soybean Seed

Monsanto Sample ID	06018314-00005	06018314-00006	06018314-00007
Lot Number	GLP-0604-17278-S	GLP-0604-17278-S	GLP-0604-17260-S
Material Name	A3525	A3525	PN93B82
Covance LIMS Number	71100196	71100201	71100194
Fatty Acids (%)			
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
16:0 Palmitic	1.76	1.68	1.70
16:0 Palmitic	1.77	1.66	1.71
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
17:0 Heptadecanoic	< 0.0600	< 0.0600	< 0.0600
17:0 Heptadecanoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
18:0 Stearic	0.629	0.595	0.679
18:0 Stearic	0.633	0.590	0.681
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1 Total 18:1 Cis	2.90	2.82	3.72
18:1 Total 18:1 Cis	2.92	2.80	3.73
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 9c, 12c Linoleic	8.42	8.07	9.68
18:2 9c,12c Linoleic	8.45	7.93	9.56
20:0 Arachidic	< 0.0600	< 0.0600	< 0.0600
20:0 Arachidic	< 0.0600	< 0.0600	< 0.0600
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	< 0.0600
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	< 0.0600
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
20:1 Eicosenoic	< 0.0600	< 0.0600	< 0.0600
20:1 Eicosenoic	< 0.0600	< 0.0600	< 0.0600

Table 1 (Continued)
Compositional Analyses
of Soybean Seed

Monsanto Sample ID	06018314-00005	06018314-00006	06018314-00007
Lot Number	GLP-0604-17278-S	GLP-0604-17278-S	GLP-0604-17260-S
Material Name	A3525	A3525	PN93B82
Covance LIMS Number	71100196	71100201	71100194
Fatty Acids (%)			
18:3 Linolenic	1.43	1.35	1.30
18:3 Linolenic	1.43	1.33	1.29
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600

Table 1 (Continued)
Compositional Analyses
of Soybean Seed

Monsanto Sample ID	06018314-00008	06018314-00009	06018314-00010
Lot Number	GLP-0605-17389-S	GLP-0605-17390-S	GLP-0605-17391-S
Material Name	NK32Z3	Quality Plus 365C	Midwest 3444
Covance LIMS Number	71100197	71100202	71100199
Proximate (%)			
Moisture	6.34	7.34	7.50
Moisture	6.38	7.34	7.67
Protein	36.8	37.8	38.2
Protein	36.9	36.7	38.3
Total Fat	18.3	16.6	16.1
Total Fat	18.3	16.6	16.1
Ash	4.70	4.90	4.83
Ash	4.64	4.91	4.86
Carbohydrates	33.9	33.4	33.4
Carbohydrates	33.8	34.5	33.1
Acid Detergent Fiber (%)	13.2	15.0	13.3
Acid Detergent Fiber (%)	13.6	14.8	12.3
Neutral Detergent Fiber (%)	15.2	13.8	15.2
Neutral Detergent Fiber (%)	15.1	13.0	15.1
Phytic Acid (%)	0.960	1.21	1.10
Phytic Acid (%)	0.864	1.27	1.12
Lectin (H.U./mg)*	0.385	1.28	1.23
Lectin (H.U./mg)*	0.746	1.01	0.982
Raffinose (%)	0.329	0.410	0.389
Raffinose (%)	0.368	0.411	0.379
Stachyose (%)	3.00	2.60	2.80
Stachyose (%)	3.34	2.62	2.74
Trypsin Inhibitor (TIU/mg)**	17.8	28.9	20.3
Trypsin Inhibitor (TIU/mg)**	17.6	26.9	20.7
Vitamin E (mg/100g)	0.899	0.945	0.912
Vitamin E (mg/100g)	0.893	0.935	0.920
Isoflavones (µg/g)			
Daidzein	1020	760	926
Daidzein	999	748	848
Glycitein	264	90.9	85.1
Glycitein	207	87.1	61.3
Genistein	758	775	770
Genistein	756	764	746

* H.U. - Hemagglutinating Unit

**TIU - Trypsin Inhibitor Unit

Table 1 (Continued)
Compositional Analyses
of Soybean Seed

Monsanto Sample ID	06018314-00008	06018314-00009	06018314-00010
Lot Number	GLP-0605-17389-S	GLP-0605-17390-S	GLP-0605-17391-S
Material Name	NK32Z3	Quality Plus 365C	Midwest 3444
Covance LIMS Number	71100197	71100202	71100199
Amino Acids (mg/g)			
Aspartic Acid	41.7	41.1	43.6
Aspartic Acid	41.7	41.9	42.7
Threonine	13.8	13.6	14.4
Threonine	13.8	13.8	14.2
Serine	19.2	19.3	20.9
Serine	19.4	19.7	19.9
Glutamic Acid	66.5	66.1	70.6
Glutamic Acid	66.4	67.5	68.5
Proline	18.0	18.0	18.7
Proline	18.2	18.2	18.5
Glycine	15.9	15.6	16.5
Glycine	15.8	15.8	16.2
Alanine	15.7	15.5	16.3
Alanine	15.7	15.7	16.0
Cystine	5.50	5.53	5.52
Cystine	5.31	5.61	5.69
Valine	18.3	17.7	18.3
Valine	18.1	18.0	18.4
Methionine	5.34	5.26	5.27
Methionine	5.17	5.16	5.65
Isoleucine	17.1	16.7	17.1
Isoleucine	17.1	17.0	17.3
Leucine	28.5	27.7	29.5
Leucine	28.5	28.2	28.9
Tyrosine	12.0	11.8	13.3
Tyrosine	12.8	12.6	13.0
Phenylalanine	19.3	19.1	20.0
Phenylalanine	19.3	19.5	19.6
Lysine	24.0	23.6	24.7
Lysine	23.9	24.0	24.4
Histidine	9.84	9.56	10.0
Histidine	9.88	9.72	10.0
Arginine	27.9	29.1	29.4
Arginine	28.6	29.8	29.7
Tryptophan	4.37	4.32	4.35
Tryptophan	4.53	4.52	4.61

Table 1 (Continued)
Compositional Analyses
of Soybean Seed

Monsanto Sample ID	06018314-00008	06018314-00009	06018314-00010
Lot Number	GLP-0605-17389-S	GLP-0605-17390-S	GLP-0605-17391-S
Material Name	NK32Z3	Quality Plus 365C	Midwest 3444
Covance LIMS Number	71100197	71100202	71100199
Fatty Acids (%)			
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
16:0 Palmitic	1.91	1.73	1.67
16:0 Palmitic	1.91	1.75	1.67
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
17:0 Heptadecanoic	< 0.0600	< 0.0600	< 0.0600
17:0 Heptadecanoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
18:0 Stearic	0.734	0.667	0.715
18:0 Stearic	0.737	0.673	0.713
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1 Total 18:1 Cis	3.82	3.45	3.36
18:1 Total 18:1 Cis	3.82	3.49	3.37
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 9c, 12c Linoleic	10.1	8.87	8.74
18:2 9c,12c Linoleic	9.86	8.87	8.52
20:0 Arachidic	< 0.0600	< 0.0600	< 0.0600
20:0 Arachidic	< 0.0600	< 0.0600	< 0.0600
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	< 0.0600
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	< 0.0600
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
20:1 Eicosenoic	< 0.0600	< 0.0600	< 0.0600
20:1 Eicosenoic	< 0.0600	< 0.0600	< 0.0600

Table 1 (Continued)
Compositional Analyses
of Soybean Seed

Monsanto Sample ID	06018314-00008	06018314-00009	06018314-00010
Lot Number	GLP-0605-17389-S	GLP-0605-17390-S	GLP-0605-17391-S
Material Name	NK32Z3	Quality Plus 365C	Midwest 3444
Covance LIMS Number	71100197	71100202	71100199
Fatty Acids (%)			
18:3 Linolenic	1.52	1.43	1.39
18:3 Linolenic	1.48	1.44	1.35
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	0.0607	< 0.0600	< 0.0600
22:0 Behenic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600

Table 1 (Continued)
Compositional Analyses
of Soybean Seed

Monsanto Sample ID	06018314-00011	06018314-00012	06018314-00013
Lot Number	GLP-0604-17267-S	GLP-0604-17267-S	GLP-0604-17278-S
Material Name	MON 87769	MON 87769	A3525
Covance LIMS Number	71100203	71100188	71100198
Proximate (%)			
Moisture	6.64	7.57	6.85
Moisture	6.66	7.62	6.80
Protein	39.5	38.9	36.3
Protein	40.5	38.8	36.0
Total Fat	15.5	15.8	17.2
Total Fat	15.5	15.8	17.1
Ash	4.68	4.87	4.83
Ash	4.60	4.75	4.92
Carbohydrates	33.7	32.9	34.8
Carbohydrates	32.7	33.0	35.2
Acid Detergent Fiber (%)	15.9	13.9	16.8
Acid Detergent Fiber (%)	16.8	12.5	15.6
Neutral Detergent Fiber (%)	12.9	12.2	18.2
Neutral Detergent Fiber (%)	12.2	13.1	18.2
Phytic Acid (%)	1.16	1.20	1.01
Phytic Acid (%)	1.12	1.15	1.04
Lectin (H.U./mg)*	1.02	2.31	0.740
Lectin (H.U./mg)*	1.54	2.58	0.912
Raffinose (%)	0.334	0.316	0.355
Raffinose (%)	0.324	0.346	0.381
Stachyose (%)	2.83	2.76	2.60
Stachyose (%)	2.75	3.09	2.82
Trypsin Inhibitor (TIU/mg)**	24.2	30.2	20.6
Trypsin Inhibitor (TIU/mg)**	23.4	32.5	20.6
Vitamin E (mg/100g)	0.936	1.06	1.74
Vitamin E (mg/100g)	0.953	1.08	1.70
Isoflavones (µg/g)			
Daidzein	839	874	1500
Daidzein	854	879	1410
Glycitein	63.7	89.0	128
Glycitein	70.0	83.5	87.3
Genistein	505	533	878
Genistein	514	520	840

* H.U. - Hemagglutinating Unit

**TIU - Trypsin Inhibitor Unit

Table 1 (Continued)
Compositional Analyses
of Soybean Seed

Monsanto Sample ID	06018314-00011	06018314-00012	06018314-00013
Lot Number	GLP-0604-17267-S	GLP-0604-17267-S	GLP-0604-17278-S
Material Name	MON 87769	MON 87769	A3525
Covance LIMS Number	71100203	71100188	71100198
Amino Acids (mg/g)			
Aspartic Acid	45.8	45.1	42.0
Aspartic Acid	45.6	44.8	41.5
Threonine	15.2	14.6	13.8
Threonine	14.7	14.6	13.8
Serine	21.1	20.2	19.4
Serine	21.3	20.3	19.4
Glutamic Acid	73.5	72.7	66.4
Glutamic Acid	73.7	72.3	65.6
Proline	20.2	19.4	18.2
Proline	20.0	17.9	18.1
Glycine	17.3	17.0	16.2
Glycine	17.1	16.9	15.9
Alanine	16.8	16.7	15.9
Alanine	16.6	16.5	15.6
Cystine	5.32	5.73	5.72
Cystine	5.97	5.95	5.65
Valine	19.3	19.7	18.2
Valine	19.6	19.5	17.8
Methionine	5.02	5.62	5.26
Methionine	5.58	5.61	5.31
Isoleucine	18.3	18.5	17.3
Isoleucine	18.4	18.3	17.0
Leucine	30.6	30.2	28.3
Leucine	30.6	30.0	28.0
Tyrosine	13.8	12.2	13.0
Tyrosine	13.4	11.9	12.8
Phenylalanine	20.9	20.6	19.2
Phenylalanine	20.9	20.4	19.1
Lysine	25.7	25.4	24.0
Lysine	25.7	25.3	23.8
Histidine	10.6	10.4	9.84
Histidine	10.6	10.3	9.75
Arginine	34.9	32.3	28.7
Arginine	34.5	32.2	28.3
Tryptophan	4.71	4.73	4.75
Tryptophan	4.84	4.70	4.51

Table 1 (Continued)
Compositional Analyses
of Soybean Seed

Monsanto Sample ID	06018314-00011	06018314-00012	06018314-00013
Lot Number	GLP-0604-17267-S	GLP-0604-17267-S	GLP-0604-17278-S
Material Name	MON 87769	MON 87769	A3525
Covance LIMS Number	71100203	71100188	71100198
Fatty Acids (%)			
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
16:0 Palmitic	1.87	1.89	1.96
16:0 Palmitic	1.88	1.89	2.02
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
17:0 Heptadecanoic	< 0.0600	< 0.0600	< 0.0600
17:0 Heptadecanoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
18:0 Stearic	0.639	0.655	0.695
18:0 Stearic	0.641	0.654	0.720
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1 Total 18:1 Cis	2.32	2.30	3.25
18:1 Total 18:1 Cis	2.33	2.30	3.36
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 9c, 12c Linoleic	3.07	3.16	9.40
18:2 9c,12c Linoleic	3.17	3.19	9.55
20:0 Arachidic	< 0.0600	< 0.0600	< 0.0600
20:0 Arachidic	< 0.0600	< 0.0600	< 0.0600
18:3 Gamma Linolenic	1.10	1.10	< 0.0600
18:3 Gamma Linolenic	1.13	1.11	< 0.0600
18:3 9c,12c,15t (Trans ALA)	0.0609	0.0671	< 0.0600
18:3 9c,12c,15t (Trans ALA)	0.0616	0.0699	< 0.0600
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
20:1 Eicosenoic	< 0.0600	< 0.0600	< 0.0600
20:1 Eicosenoic	< 0.0600	< 0.0600	< 0.0600

Table 1 (Continued)
Compositional Analyses
of Soybean Seed

Monsanto Sample ID	06018314-00011	06018314-00012	06018314-00013
Lot Number	GLP-0604-17267-S	GLP-0604-17267-S	GLP-0604-17278-S
Material Name	MON 87769	MON 87769	A3525
Covance LIMS Number	71100203	71100188	71100198
Fatty Acids (%)			
18:3 Linolenic	1.65	1.69	1.32
18:3 Linolenic	1.70	1.70	1.34
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	4.23	4.35	< 0.0600
18:4 Stearidonic	4.36	4.39	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600

Table 1 (Continued)
Compositional Analyses
of Soybean Seed

Monsanto Sample ID	06018314-00014	06018314-00015	06018314-00016
Lot Number	GLP-0604-17278-S	GLP-0605-17392-S	GLP-0605-17393-S
Material Name	A3525	H3395	H3802
Covance LIMS Number	71100190	71100192	71100200
Proximate (%)			
Moisture	6.91	6.70	6.62
Moisture	6.90	6.70	6.53
Protein	37.8	36.6	34.8
Protein	36.5	37.0	35.3
Total Fat	17.6	18.5	19.3
Total Fat	17.9	18.6	19.3
Ash	4.70	4.79	4.94
Ash	4.79	4.95	4.98
Carbohydrates	33.0	33.4	34.3
Carbohydrates	33.9	32.8	33.9
Acid Detergent Fiber (%)	14.3	15.1	16.6
Acid Detergent Fiber (%)	13.9	15.1	15.1
Neutral Detergent Fiber (%)	14.9	13.1	15.6
Neutral Detergent Fiber (%)	16.0	14.9	16.2
Phytic Acid (%)	0.953	0.947	1.03
Phytic Acid (%)	0.944	1.02	1.09
Lectin (H.U./mg)*	2.61	4.68	2.11
Lectin (H.U./mg)*	2.96	2.28	2.00
Raffinose (%)	0.409	0.303	0.355
Raffinose (%)	0.440	0.298	0.331
Stachyose (%)	2.83	2.48	2.67
Stachyose (%)	3.02	2.43	2.59
Trypsin Inhibitor (TIU/mg)**	28.5	41.0	18.0
Trypsin Inhibitor (TIU/mg)**	25.9	30.0	19.9
Vitamin E (mg/100g)	2.02	2.34	1.65
Vitamin E (mg/100g)	2.07	2.36	1.52
Isoflavones (µg/g)			
Daidzein	1300	652	826
Daidzein	1290	674	862
Glycitein	115	165	170
Glycitein	98.0	173	188
Genistein	790	722	808
Genistein	834	734	855

* H.U. - Hemagglutinating Unit

**TIU - Trypsin Inhibitor Unit

Table 1 (Continued)
Compositional Analyses
of Soybean Seed

Monsanto Sample ID	06018314-00014	06018314-00015	06018314-00016
Lot Number	GLP-0604-17278-S	GLP-0605-17392-S	GLP-0605-17393-S
Material Name	A3525	H3395	H3802
Covance LIMS Number	71100190	71100192	71100200
Amino Acids (mg/g)			
Aspartic Acid	42.6	42.7	40.1
Aspartic Acid	42.1	42.7	40.1
Threonine	14.1	14.0	13.4
Threonine	13.9	14.1	13.4
Serine	19.5	19.7	18.8
Serine	19.1	20.2	18.2
Glutamic Acid	67.8	67.6	62.9
Glutamic Acid	67.0	67.4	62.8
Proline	18.2	18.2	16.7
Proline	16.6	17.7	16.4
Glycine	16.4	16.1	15.7
Glycine	16.2	16.0	15.6
Alanine	16.0	15.7	15.3
Alanine	15.9	15.8	15.4
Cystine	5.62	5.82	5.09
Cystine	5.69	5.57	4.97
Valine	18.7	18.3	17.8
Valine	18.6	17.8	18.1
Methionine	5.50	5.45	4.86
Methionine	5.41	5.35	5.01
Isoleucine	17.8	17.6	16.6
Isoleucine	17.7	17.1	16.8
Leucine	28.9	28.8	27.5
Leucine	28.5	28.7	27.5
Tyrosine	12.1	12.9	11.8
Tyrosine	11.5	13.1	11.7
Phenylalanine	19.7	19.8	18.8
Phenylalanine	19.4	19.7	18.7
Lysine	24.3	24.0	22.8
Lysine	24.2	23.9	22.7
Histidine	9.91	9.86	9.52
Histidine	9.79	9.76	9.52
Arginine	28.4	28.7	26.1
Arginine	27.8	28.6	26.3
Tryptophan	4.71	4.71	4.42
Tryptophan	4.75	4.68	4.45

Table 1 (Continued)
Compositional Analyses
of Soybean Seed

Monsanto Sample ID	06018314-00014	06018314-00015	06018314-00016
Lot Number	GLP-0604-17278-S	GLP-0605-17392-S	GLP-0605-17393-S
Material Name	A3525	H3395	H3802
Covance LIMS Number	71100190	71100192	71100200
Fatty Acids (%)			
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
16:0 Palmitic	2.03	1.92	2.26
16:0 Palmitic	2.04	1.92	2.27
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
17:0 Heptadecanoic	< 0.0600	< 0.0600	< 0.0600
17:0 Heptadecanoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
18:0 Stearic	0.720	0.722	0.849
18:0 Stearic	0.722	0.723	0.849
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1 Total 18:1 Cis	3.55	3.65	4.01
18:1 Total 18:1 Cis	3.55	3.66	4.01
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 9c, 12c Linoleic	9.85	10.2	10.5
18:2 9c,12c Linoleic	9.75	10.1	10.5
20:0 Arachidic	< 0.0600	< 0.0600	0.0641
20:0 Arachidic	< 0.0600	< 0.0600	0.0634
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	< 0.0600
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	< 0.0600
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
20:1 Eicosenoic	< 0.0600	< 0.0600	< 0.0600
20:1 Eicosenoic	< 0.0600	< 0.0600	< 0.0600

Table 1 (Continued)
Compositional Analyses
of Soybean Seed

Monsanto Sample ID	06018314-00014	06018314-00015	06018314-00016
Lot Number	GLP-0604-17278-S	GLP-0605-17392-S	GLP-0605-17393-S
Material Name	A3525	H3395	H3802
Covance LIMS Number	71100190	71100192	71100200
Fatty Acids (%)			
18:3 Linolenic	1.33	1.34	1.34
18:3 Linolenic	1.32	1.32	1.35
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	< 0.0600	< 0.0600	0.0601
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600

Table 1 (Continued)
Compositional Analyses
of Soybean Seed

Monsanto Sample ID	06018314-00017	06018314-00018	06018314-00019
Lot Number	GLP-0605-17394-S	GLP-0605-17395-S	GLP-0604-17267-S
Material Name	P93B87	93B15	MON 87769
Covance LIMS Number	71100193	71100195	71100189
Proximate (%)			
Moisture	6.80	7.26	6.89
Moisture	6.81	7.25	6.97
Protein	36.3	34.2	36.6
Protein	36.6	36.0	36.5
Total Fat	19.8	18.5	18.2
Total Fat	19.8	18.6	18.1
Ash	4.74	4.74	4.90
Ash	4.65	4.71	4.85
Carbohydrates	32.4	35.3	33.4
Carbohydrates	32.1	33.4	33.6
Acid Detergent Fiber (%)	14.7	16.2	16.5
Acid Detergent Fiber (%)	15.7	17.6	14.5
Neutral Detergent Fiber (%)	17.2	18.0	15.1
Neutral Detergent Fiber (%)	15.4	15.9	14.6
Phytic Acid (%)	0.894	1.05	1.09
Phytic Acid (%)	0.899	1.06	1.11
Lectin (H.U./mg)*	1.18	3.82	4.48
Lectin (H.U./mg)*	1.22	2.04	1.97
Raffinose (%)	0.304	0.369	0.385
Raffinose (%)	0.285	0.349	0.388
Stachyose (%)	2.82	2.62	2.68
Stachyose (%)	2.71	2.48	2.70
Trypsin Inhibitor (TIU/mg)**	29.9	25.1	30.4
Trypsin Inhibitor (TIU/mg)**	26.8	46.0	28.6
Vitamin E (mg/100g)	2.69	3.51	2.11
Vitamin E (mg/100g)	2.79	3.52	2.08
Isoflavones (µg/g)			
Daidzein	720	355	1090
Daidzein	791	309	1060
Glycitein	123	253	99.8
Glycitein	149	177	90.3
Genistein	631	487	640
Genistein	655	500	652

* H.U. - Hemagglutinating Unit

**TIU - Trypsin Inhibitor Unit

Table 1 (Continued)
Compositional Analyses
of Soybean Seed

Monsanto Sample ID	06018314-00017	06018314-00018	06018314-00019
Lot Number	GLP-0605-17394-S	GLP-0605-17395-S	GLP-0604-17267-S
Material Name	P93B87	93B15	MON 87769
Covance LIMS Number	71100193	71100195	71100189
Amino Acids (mg/g)			
Aspartic Acid	42.4	42.6	42.6
Aspartic Acid	41.9	42.2	42.9
Threonine	14.1	13.7	14.1
Threonine	13.9	13.7	14.2
Serine	20.4	20.5	19.5
Serine	20.4	20.0	19.6
Glutamic Acid	67.8	68.2	67.5
Glutamic Acid	67.0	67.6	68.0
Proline	18.3	17.4	18.2
Proline	18.1	17.1	18.5
Glycine	16.2	16.2	16.4
Glycine	16.2	16.1	16.5
Alanine	15.8	16.2	16.0
Alanine	15.8	15.8	16.0
Cystine	5.62	5.14	5.63
Cystine	5.64	5.31	5.61
Valine	18.0	18.0	18.5
Valine	17.9	18.1	18.7
Methionine	5.12	4.71	5.40
Methionine	5.19	4.97	5.23
Isoleucine	17.2	17.3	17.6
Isoleucine	17.1	17.4	17.7
Leucine	28.8	28.8	28.6
Leucine	28.6	28.6	28.8
Tyrosine	13.2	11.9	13.0
Tyrosine	12.4	11.8	13.0
Phenylalanine	19.5	19.8	19.5
Phenylalanine	19.3	19.5	19.7
Lysine	24.3	24.4	24.2
Lysine	24.2	24.2	24.4
Histidine	10.0	9.85	9.94
Histidine	9.80	9.78	10.0
Arginine	28.6	28.1	29.1
Arginine	27.9	27.7	29.2
Tryptophan	4.54	4.59	4.98
Tryptophan	4.54	4.52	4.83

Table 1 (Continued)
Compositional Analyses
of Soybean Seed

Monsanto Sample ID	06018314-00017	06018314-00018	06018314-00019
Lot Number	GLP-0605-17394-S	GLP-0605-17395-S	GLP-0604-17267-S
Material Name	P93B87	93B15	MON 87769
Covance LIMS Number	71100193	71100195	71100189
Fatty Acids (%)			
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
16:0 Palmitic	1.97	1.85	2.19
16:0 Palmitic	1.98	1.84	2.19
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
17:0 Heptadecanoic	< 0.0600	< 0.0600	< 0.0600
17:0 Heptadecanoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
18:0 Stearic	0.780	0.731	0.760
18:0 Stearic	0.779	0.731	0.753
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1 Total 18:1 Cis	4.51	4.16	3.09
18:1 Total 18:1 Cis	4.43	4.15	3.06
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 9c, 12c Linoleic	10.8	9.88	5.56
18:2 9c,12c Linoleic	10.7	10.4	5.47
20:0 Arachidic	0.0646	< 0.0600	0.0632
20:0 Arachidic	0.0605	0.0616	0.0614
18:3 Gamma Linolenic	< 0.0600	< 0.0600	1.13
18:3 Gamma Linolenic	< 0.0600	< 0.0600	1.11
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	0.0698
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	0.0680
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
20:1 Eicosenoic	< 0.0600	< 0.0600	< 0.0600
20:1 Eicosenoic	< 0.0600	< 0.0600	< 0.0600

Table 1 (Continued)
Compositional Analyses
of Soybean Seed

Monsanto Sample ID	06018314-00017	06018314-00018	06018314-00019
Lot Number	GLP-0605-17394-S	GLP-0605-17395-S	GLP-0604-17267-S
Material Name	P93B87	93B15	MON 87769
Covance LIMS Number	71100193	71100195	71100189
Fatty Acids (%)			
18:3 Linolenic	1.28	1.20	1.87
18:3 Linolenic	1.41	1.26	1.83
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	3.14
18:4 Stearidonic	< 0.0600	< 0.0600	3.08
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	0.0649	< 0.0600	< 0.0600
22:0 Behenic	0.0603	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600

Table 1 (Continued)
Compositional Analyses
of Soybean Seed

Monsanto Sample ID	06018314-00020
Lot Number	GLP-0604-17267-S
Material Name	MON 87769
Covance LIMS Number	71100191
Proximate (%)	
Moisture	6.86
Moisture	6.92
Protein	37.7
Protein	37.6
Total Fat	18.3
Total Fat	18.1
Ash	4.89
Ash	4.99
Carbohydrates	32.3
Carbohydrates	32.4
Acid Detergent Fiber (%)	13.3
Acid Detergent Fiber (%)	11.7
Neutral Detergent Fiber (%)	14.8
Neutral Detergent Fiber (%)	13.2
Phytic Acid (%)	1.15
Phytic Acid (%)	1.16
Lectin (H.U./mg)*	2.31
Lectin (H.U./mg)*	2.32
Raffinose (%)	0.415
Raffinose (%)	0.403
Stachyose (%)	2.66
Stachyose (%)	2.68
Trypsin Inhibitor (TIU/mg)**	24.7
Trypsin Inhibitor (TIU/mg)**	29.1
Vitamin E (mg/100g)	2.32
Vitamin E (mg/100g)	2.35
Isoflavones (µg/g)	
Daidzein	971
Daidzein	1050
Glycitein	84.5
Glycitein	99.4
Genistein	620
Genistein	642

* H.U. - Hemagglutinating Unit

**TIU - Trypsin Inhibitor Unit

Table 1 (Continued)
Compositional Analyses
of Soybean Seed

Monsanto Sample ID	06018314-00020
Lot Number	GLP-0604-17267-S
Material Name	MON 87769
Covance LIMS Number	71100191
Amino Acids (mg/g)	
Aspartic Acid	43.6
Aspartic Acid	43.8
Threonine	14.2
Threonine	14.2
Serine	19.7
Serine	19.8
Glutamic Acid	69.3
Glutamic Acid	69.8
Proline	18.5
Proline	18.6
Glycine	16.9
Glycine	16.8
Alanine	16.4
Alanine	16.3
Cystine	5.58
Cystine	5.60
Valine	19.2
Valine	19.3
Methionine	5.23
Methionine	5.22
Isoleucine	18.2
Isoleucine	18.2
Leucine	29.4
Leucine	29.5
Tyrosine	13.3
Tyrosine	13.2
Phenylalanine	20.1
Phenylalanine	20.2
Lysine	24.6
Lysine	24.7
Histidine	10.1
Histidine	10.2
Arginine	30.3
Arginine	30.3
Tryptophan	4.86
Tryptophan	4.89

Table 1 (Continued)
Compositional Analyses
of Soybean Seed

Monsanto Sample ID	06018314-00020
Lot Number	GLP-0604-17267-S
Material Name	MON 87769
Covance LIMS Number	71100191
Fatty Acids (%)	
08:0 Caprylic	< 0.0600
08:0 Caprylic	< 0.0600
10:0 Capric	< 0.0600
10:0 Capric	< 0.0600
12:0 Lauric	< 0.0600
12:0 Lauric	< 0.0600
14:0 Myristic	< 0.0600
14:0 Myristic	< 0.0600
14:1 Myristoleic	< 0.0600
14:1 Myristoleic	< 0.0600
15:0 Pentadecanoic	< 0.0600
15:0 Pentadecanoic	< 0.0600
15:1 Pentadecenoic	< 0.0600
15:1 Pentadecenoic	< 0.0600
16:0 Palmitic	2.17
16:0 Palmitic	2.15
16:1 Palmitoleic	< 0.0600
16:1 Palmitoleic	< 0.0600
17:0 Heptadecanoic	< 0.0600
17:0 Heptadecanoic	< 0.0600
17:1 Heptadecenoic	< 0.0600
17:1 Heptadecenoic	< 0.0600
18:0 Stearic	0.766
18:0 Stearic	0.760
18:1T Total 18:1 Trans	< 0.0600
18:1T Total 18:1 Trans	< 0.0600
18:1 Total 18:1 Cis	3.18
18:1 Total 18:1 Cis	3.16
18:2T Total 18:2 Trans	< 0.0600
18:2T Total 18:2 Trans	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600
18:2 9c, 12c Linoleic	5.42
18:2 9c,12c Linoleic	5.53
20:0 Arachidic	0.0622
20:0 Arachidic	0.0620
18:3 Gamma Linolenic	1.07
18:3 Gamma Linolenic	1.10
18:3 9c,12c,15t (Trans ALA)	0.0664
18:3 9c,12c,15t (Trans ALA)	0.0685
18:3 Other 18:3 Trans	< 0.0600
18:3 Other 18:3 Trans	< 0.0600
20:1 Eicosenoic	< 0.0600
20:1 Eicosenoic	< 0.0600

Table 1 (Continued)
Compositional Analyses
of Soybean Seed

Monsanto Sample ID	06018314-00020
Lot Number	GLP-0604-17267-S
Material Name	MON 87769
Covance LIMS Number	71100191
Fatty Acids (%)	
18:3 Linolenic	1.81
18:3 Linolenic	1.85
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600
18:4 Stearidonic	2.88
18:4 Stearidonic	2.94
20:2 Eicosadienoic	< 0.0600
20:2 Eicosadienoic	< 0.0600
22:0 Behenic	< 0.0600
22:0 Behenic	< 0.0600
22:1 Erucic	< 0.0600
22:1 Erucic	< 0.0600
20:3 Eicosatrienoic	< 0.0600
20:3 Eicosatrienoic	< 0.0600
20:4 Arachidonic	< 0.0600
20:4 Arachidonic	< 0.0600
20:5 Eicosapentaenoic	< 0.0600
20:5 Eicosapentaenoic	< 0.0600
24:0 Lignoceric	< 0.0600
24:0 Lignoceric	< 0.0600
22:5 Docosapentaenoic	< 0.0600
22:5 Docosapentaenoic	< 0.0600
22:6 Docosahexaenoic	< 0.0600
22:6 Docosahexaenoic	< 0.0600

Table 2
Compositional Analyses
of Soybean Meal

Monsanto Sample ID	07PP8329-00002	07PP8329-00006	07PP8329-00010
Lot Number	GLP-0604-17278-S	GLP-0604-17278-S	GLP-0604-17278-S
Material Name	A3525	A3525	A3525
Covance LIMS Number	71100217	71100204	71100215
Proximate (%)			
Moisture	4.11	1.72	1.92
Moisture	4.12	1.79	1.89
Protein	51.0	50.8	51.6
Protein	51.0	51.6	51.6
Fat	0.637	0.779	1.11
Fat	0.540	1.04	1.11
Ash	6.00	5.86	6.68
Ash	6.19	5.85	6.71
Carbohydrates	38.3	40.8	38.7
Carbohydrates	38.2	39.7	38.7
Acid Detergent Fiber (%)	3.99	5.19	4.56
Acid Detergent Fiber (%)	4.11	4.56	4.14
Neutral Detergent Fiber (%)	5.25	5.67	5.74
Neutral Detergent Fiber (%)	5.03	5.26	5.68
Phytic Acid (%)	1.20	1.27	1.35
Phytic Acid (%)	1.29	1.30	1.31
Trypsin Inhibitor (TIU/mg)**	2.75	10.7	< 1.00
Trypsin Inhibitor (TIU/mg)**	1.99	7.18	4.03

**TIU - Trypsin Inhibitor Unit

Table 2 (Continued)
Compositional Analyses
of Soybean Meal

Monsanto Sample ID	07PP8329-00002	07PP8329-00006	07PP8329-00010
Lot Number	GLP-0604-17278-S	GLP-0604-17278-S	GLP-0604-17278-S
Material Name	A3525	A3525	A3525
Covance LIMS Number	71100217	71100204	71100215
Amino Acids (mg/g)			
Aspartic Acid	57.1	58.7	58.6
Aspartic Acid	56.9	59.4	58.8
Threonine	19.2	18.5	19.4
Threonine	19.4	19.1	19.6
Serine	26.7	25.2	26.3
Serine	26.5	25.5	26.8
Glutamic Acid	91.5	94.7	93.0
Glutamic Acid	90.7	95.5	93.6
Proline	25.2	26.3	24.0
Proline	25.2	27.0	25.1
Glycine	21.3	22.3	22.4
Glycine	21.5	22.5	22.3
Alanine	21.3	22.3	22.4
Alanine	21.7	22.4	22.4
Cystine	7.38	7.29	7.69
Cystine	7.42	7.38	7.77
Valine	24.1	26.5	25.9
Valine	23.8	26.7	25.8
Methionine	7.26	7.31	7.50
Methionine	7.28	7.33	7.51
Isoleucine	22.9	25.0	24.7
Isoleucine	22.7	25.2	24.6
Leucine	38.6	40.1	39.8
Leucine	38.3	40.5	40.0
Tyrosine	17.5	16.1	18.1
Tyrosine	17.4	17.9	17.1
Phenylalanine	25.9	26.9	26.6
Phenylalanine	25.7	27.2	26.8
Lysine	31.3	32.5	32.4
Lysine	31.2	32.8	32.5
Histidine	13.3	13.6	13.8
Histidine	13.2	13.8	13.8
Arginine	40.6	41.5	40.0
Arginine	40.3	43.2	39.7
Tryptophan	6.23	6.34	6.79
Tryptophan	6.34	6.35	6.80

Table 2 (Continued)
Compositional Analyses
of Soybean Meal

Monsanto Sample ID	07PP8329-00002	07PP8329-00006	07PP8329-00010
Lot Number	GLP-0604-17278-S	GLP-0604-17278-S	GLP-0604-17278-S
Material Name	A3525	A3525	A3525
Covance LIMS Number	71100217	71100204	71100215
Fatty Acids (%)			
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
16:0 Palmitic	0.0661	0.105	0.118
16:0 Palmitic	0.0657	0.106	0.116
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
17:0 Heptadecanoic	< 0.0600	< 0.0600	< 0.0600
17:0 Heptadecanoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
18:0 Stearic	< 0.0600	< 0.0600	< 0.0600
18:0 Stearic	< 0.0600	< 0.0600	< 0.0600
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1 Total 18:1 Cis	0.0863	0.146	0.166
18:1 Total 18:1 Cis	0.0873	0.146	0.158
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 9c,12c Linoleic	0.292	0.484	0.535
18:2 9c,12c Linoleic	0.299	0.481	0.523
20:0 Arachidic	< 0.0600	< 0.0600	< 0.0600
20:0 Arachidic	< 0.0600	< 0.0600	< 0.0600
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	< 0.0600
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	< 0.0600

Table 2 (Continued)
Compositional Analyses
of Soybean Meal

Monsanto Sample ID	07PP8329-00002	07PP8329-00006	07PP8329-00010
Lot Number	GLP-0604-17278-S	GLP-0604-17278-S	GLP-0604-17278-S
Material Name	A3525	A3525	A3525
Covance LIMS Number	71100217	71100204	71100215
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
20:1 Eicosenoic	< 0.0600	< 0.0600	< 0.0600
20:1 Eicosenoic	< 0.0600	< 0.0600	< 0.0600
18:3 Linolenic	0.0613	0.101	0.0938
18:3 Linolenic	0.0632	0.101	0.0932
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600

Table 2 (Continued)
Compositional Analyses
of Soybean Meal

Monsanto Sample ID	07PP8329-00014	07PP8329-00018	07PP8329-00022
Lot Number	GLP-0604-17278-S	GLP-0604-17260-S	GLP-0605-17389-S
Material Name	A3525	PN93B82	NK32Z3
Covance LIMS Number	71100209	71100216	71100214
Proximate (%)			
Moisture	1.97	4.33	2.95
Moisture	2.11	4.42	3.03
Protein	51.2	52.2	50.6
Protein	52.0	52.7	50.4
Fat	0.673	0.821	0.872
Fat	0.713	0.859	0.834
Ash	6.41	6.38	6.18
Ash	6.68	6.37	6.18
Carbohydrates	39.7	36.3	39.4
Carbohydrates	38.5	35.7	39.6
Acid Detergent Fiber (%)	4.32	5.15	4.84
Acid Detergent Fiber (%)	4.40	5.68	4.66
Neutral Detergent Fiber (%)	5.54	5.92	5.63
Neutral Detergent Fiber (%)	5.42	5.75	5.79
Phytic Acid (%)	1.32	1.24	1.18
Phytic Acid (%)	1.35	1.22	1.19
Trypsin Inhibitor (TIU/mg)**	3.86	< 1.00	6.07
Trypsin Inhibitor (TIU/mg)**	6.69	1.16	5.65

**TIU - Trypsin Inhibitor Unit

Table 2 (Continued)
Compositional Analyses
of Soybean Meal

Monsanto Sample ID	07PP8329-00014	07PP8329-00018	07PP8329-00022
Lot Number	GLP-0604-17278-S	GLP-0604-17260-S	GLP-0605-17389-S
Material Name	A3525	PN93B82	NK32Z3
Covance LIMS Number	71100209	71100216	71100214
Amino Acids (mg/g)			
Aspartic Acid	59.4	58.6	57.4
Aspartic Acid	59.0	58.6	56.8
Threonine	19.3	20.1	19.1
Threonine	19.5	19.2	18.5
Serine	26.1	27.0	25.9
Serine	26.1	27.4	25.9
Glutamic Acid	94.9	94.5	91.9
Glutamic Acid	93.5	95.9	91.3
Proline	25.7	26.5	24.9
Proline	26.2	26.0	26.0
Glycine	22.7	22.2	21.7
Glycine	22.7	22.4	21.6
Alanine	22.6	21.8	21.7
Alanine	22.6	22.0	21.5
Cystine	7.61	7.64	7.05
Cystine	7.56	7.61	7.22
Valine	26.7	25.0	25.5
Valine	26.4	25.6	25.4
Methionine	7.75	7.54	7.09
Methionine	7.58	7.69	7.18
Isoleucine	25.4	23.5	24.0
Isoleucine	25.3	24.1	23.9
Leucine	40.7	39.7	39.3
Leucine	40.6	40.1	39.1
Tyrosine	16.4	18.2	17.6
Tyrosine	18.3	16.5	17.6
Phenylalanine	27.3	26.6	26.2
Phenylalanine	27.2	26.7	26.1
Lysine	33.0	32.1	32.0
Lysine	32.9	32.3	31.9
Histidine	13.9	13.8	13.6
Histidine	13.9	13.9	13.5
Arginine	39.6	41.6	39.5
Arginine	40.7	41.0	39.2
Tryptophan	6.80	6.38	6.28
Tryptophan	6.65	6.49	6.29

Table 2 (Continued)
Compositional Analyses
of Soybean Meal

Monsanto Sample ID	07PP8329-00014	07PP8329-00018	07PP8329-00022
Lot Number	GLP-0604-17278-S	GLP-0604-17260-S	GLP-0605-17389-S
Material Name	A3525	PN93B82	NK32Z3
Covance LIMS Number	71100209	71100216	71100214
Fatty Acids (%)			
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
16:0 Palmitic	0.0777	0.0824	0.0850
16:0 Palmitic	0.0781	0.0797	0.0853
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
17:0 Heptadecanoic	< 0.0600	< 0.0600	< 0.0600
17:0 Heptadecanoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
18:0 Stearic	< 0.0600	< 0.0600	< 0.0600
18:0 Stearic	< 0.0600	< 0.0600	< 0.0600
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1 Total 18:1 Cis	0.109	0.137	0.125
18:1 Total 18:1 Cis	0.110	0.132	0.127
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 9c,12c Linoleic	0.355	0.423	0.401
18:2 9c,12c Linoleic	0.357	0.406	0.405
20:0 Arachidic	< 0.0600	< 0.0600	< 0.0600
20:0 Arachidic	< 0.0600	< 0.0600	< 0.0600
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	< 0.0600
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	< 0.0600

Table 2 (Continued)
Compositional Analyses
of Soybean Meal

Monsanto Sample ID	07PP8329-00014	07PP8329-00018	07PP8329-00022
Lot Number	GLP-0604-17278-S	GLP-0604-17260-S	GLP-0605-17389-S
Material Name	A3525	PN93B82	NK32Z3
Covance LIMS Number	71100209	71100216	71100214
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
20:1 Eicosenoic	< 0.0600	< 0.0600	< 0.0600
20:1 Eicosenoic	< 0.0600	< 0.0600	< 0.0600
18:3 Linolenic	0.0617	0.0749	0.0753
18:3 Linolenic	0.0614	0.0719	0.0754
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600

Table 2 (Continued)
Compositional Analyses
of Soybean Meal

Monsanto Sample ID	07PP8329-00026	07PP8329-00030	07PP8329-00034
Lot Number	GLP-0605-17390-S	GLP-0605-17391-S	GLP-0605-17392-S
Material Name	Quality Plus 365C	Midwest 3444	H3395
Covance LIMS Number	71100219	71100211	71100206
Proximate (%)			
Moisture	2.69	4.39	4.10
Moisture	2.83	4.40	4.44
Protein	50.9	50.7	52.3
Protein	51.5	51.3	52.7
Fat	0.937	1.12	0.757
Fat	0.804	1.09	0.806
Ash	6.42	6.31	6.73
Ash	6.57	6.31	6.80
Carbohydrates	39.1	37.5	36.1
Carbohydrates	38.3	36.9	35.3
Acid Detergent Fiber (%)	3.83	3.97	4.58
Acid Detergent Fiber (%)	3.95	4.02	4.63
Neutral Detergent Fiber (%)	4.22	5.01	4.54
Neutral Detergent Fiber (%)	4.36	4.89	4.77
Phytic Acid (%)	1.40	1.39	1.41
Phytic Acid (%)	1.43	1.34	1.32
Trypsin Inhibitor (TIU/mg)**	1.21	5.78	< 1.00
Trypsin Inhibitor (TIU/mg)**	1.74	6.13	< 1.00

**TIU - Trypsin Inhibitor Unit

Table 2 (Continued)
Compositional Analyses
of Soybean Meal

Monsanto Sample ID	07PP8329-00026	07PP8329-00030	07PP8329-00034
Lot Number	GLP-0605-17390-S	GLP-0605-17391-S	GLP-0605-17392-S
Material Name	Quality Plus 365C	Midwest 3444	H3395
Covance LIMS Number	71100219	71100211	71100206
Amino Acids (mg/g)			
Aspartic Acid	58.1	58.6	60.2
Aspartic Acid	58.2	58.8	60.5
Threonine	19.1	19.3	19.3
Threonine	18.9	20.1	19.5
Serine	27.1	26.2	26.2
Serine	27.2	27.3	26.5
Glutamic Acid	94.5	94.9	96.2
Glutamic Acid	94.3	94.5	96.2
Proline	24.9	25.2	26.7
Proline	24.0	26.2	25.7
Glycine	21.8	22.4	22.7
Glycine	22.0	22.3	22.4
Alanine	22.1	22.5	23.0
Alanine	22.4	22.5	22.7
Cystine	7.50	7.56	7.58
Cystine	7.56	7.53	7.57
Valine	25.5	26.1	26.8
Valine	25.3	24.8	26.7
Methionine	7.36	7.78	7.61
Methionine	7.37	7.94	7.55
Isoleucine	24.1	24.4	25.7
Isoleucine	23.9	23.3	25.7
Leucine	39.5	40.0	41.0
Leucine	39.4	39.7	41.2
Tyrosine	17.8	16.1	18.4
Tyrosine	17.5	18.1	18.4
Phenylalanine	26.9	26.7	27.8
Phenylalanine	26.8	26.8	27.8
Lysine	32.3	32.4	32.6
Lysine	32.1	32.2	32.7
Histidine	13.6	13.8	13.8
Histidine	13.5	13.5	13.9
Arginine	41.2	39.8	40.4
Arginine	41.2	39.9	40.5
Tryptophan	6.40	6.17	6.52
Tryptophan	6.49	6.30	6.63

Table 2 (Continued)
Compositional Analyses
of Soybean Meal

Monsanto Sample ID	07PP8329-00026	07PP8329-00030	07PP8329-00034
Lot Number	GLP-0605-17390-S	GLP-0605-17391-S	GLP-0605-17392-S
Material Name	Quality Plus 365C	Midwest 3444	H3395
Covance LIMS Number	71100219	71100211	71100206
Fatty Acids (%)			
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
16:0 Palmitic	0.0878	0.110	0.0816
16:0 Palmitic	0.0889	0.111	0.0785
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
17:0 Heptadecanoic	< 0.0600	< 0.0600	< 0.0600
17:0 Heptadecanoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
18:0 Stearic	< 0.0600	< 0.0600	< 0.0600
18:0 Stearic	< 0.0600	< 0.0600	< 0.0600
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1 Total 18:1 Cis	0.133	0.178	0.121
18:1 Total 18:1 Cis	0.136	0.182	0.115
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 9c,12c Linoleic	0.420	0.539	0.405
18:2 9c,12c Linoleic	0.421	0.558	0.396
20:0 Arachidic	< 0.0600	< 0.0600	< 0.0600
20:0 Arachidic	< 0.0600	< 0.0600	< 0.0600
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	< 0.0600
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	< 0.0600

Table 2 (Continued)
Compositional Analyses
of Soybean Meal

Monsanto Sample ID	07PP8329-00026	07PP8329-00030	07PP8329-00034
Lot Number	GLP-0605-17390-S	GLP-0605-17391-S	GLP-0605-17392-S
Material Name	Quality Plus 365C	Midwest 3444	H3395
Covance LIMS Number	71100219	71100211	71100206
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
20:1 Eicosenoic	< 0.0600	< 0.0600	< 0.0600
20:1 Eicosenoic	< 0.0600	< 0.0600	< 0.0600
18:3 Linolenic	0.0806	0.100	0.0625
18:3 Linolenic	0.0804	0.104	0.0613
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600

Table 2 (Continued)
Compositional Analyses
of Soybean Meal

Monsanto Sample ID	07PP8329-00038	07PP8329-00042	07PP8329-00046
Lot Number	GLP-0605-17393-S	GLP-0605-17394-S	GLP-0605-17395-S
Material Name	H3802	P93B87	93B15
Covance LIMS Number	71100205	71100212	71100207
Proximate (%)			
Moisture	2.40	3.04	3.16
Moisture	2.32	3.06	3.16
Protein	49.0	53.3	52.3
Protein	48.7	53.8	52.3
Fat	1.47	1.37	2.22
Fat	1.44	1.55	2.38
Ash	6.60	6.75	6.69
Ash	6.81	6.82	6.70
Carbohydrates	40.5	35.5	35.6
Carbohydrates	40.7	34.8	35.5
Acid Detergent Fiber (%)	4.19	4.17	4.19
Acid Detergent Fiber (%)	4.03	3.87	4.28
Neutral Detergent Fiber (%)	6.33	4.99	4.60
Neutral Detergent Fiber (%)	4.67	4.75	5.03
Phytic Acid (%)	1.43	1.21	1.38
Phytic Acid (%)	1.51	1.26	1.39
Trypsin Inhibitor (TIU/mg)**	5.78	5.30	8.32
Trypsin Inhibitor (TIU/mg)**	2.92	5.01	4.53

**TIU - Trypsin Inhibitor Unit

Table 2 (Continued)
Compositional Analyses
of Soybean Meal

Monsanto Sample ID	07PP8329-00038	07PP8329-00042	07PP8329-00046
Lot Number	GLP-0605-17393-S	GLP-0605-17394-S	GLP-0605-17395-S
Material Name	H3802	P93B87	93B15
Covance LIMS Number	71100205	71100212	71100207
Amino Acids (mg/g)			
Aspartic Acid	56.7	60.2	60.7
Aspartic Acid	56.6	60.4	60.1
Threonine	19.0	19.9	19.6
Threonine	18.7	20.1	19.4
Serine	24.6	27.6	26.9
Serine	24.8	27.5	26.8
Glutamic Acid	89.3	96.9	96.8
Glutamic Acid	89.4	96.8	95.9
Proline	25.2	26.8	24.3
Proline	23.7	26.6	26.2
Glycine	22.1	22.9	22.5
Glycine	22.1	22.9	22.3
Alanine	22.2	22.8	22.7
Alanine	22.2	22.8	22.7
Cystine	6.86	7.59	7.56
Cystine	6.97	7.95	7.47
Valine	26.3	26.7	26.5
Valine	26.2	26.7	26.5
Methionine	7.26	7.19	7.45
Methionine	7.15	7.38	7.25
Isoleucine	24.5	25.4	25.7
Isoleucine	24.5	25.4	25.6
Leucine	39.4	41.3	41.3
Leucine	39.4	41.3	41.2
Tyrosine	16.1	18.7	18.8
Tyrosine	16.1	18.8	16.7
Phenylalanine	26.5	27.5	27.8
Phenylalanine	26.4	27.6	27.6
Lysine	31.3	33.7	33.6
Lysine	31.2	33.9	33.4
Histidine	13.6	14.2	14.0
Histidine	13.5	14.2	14.0
Arginine	37.0	41.0	41.2
Arginine	37.2	41.1	39.6
Tryptophan	6.43	6.85	6.60
Tryptophan	6.50	6.88	6.55

Table 2 (Continued)
Compositional Analyses
of Soybean Meal

Monsanto Sample ID	07PP8329-00038	07PP8329-00042	07PP8329-00046
Lot Number	GLP-0605-17393-S	GLP-0605-17394-S	GLP-0605-17395-S
Material Name	H3802	P93B87	93B15
Covance LIMS Number	71100205	71100212	71100207
Fatty Acids (%)			
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
16:0 Palmitic	0.163	0.143	0.217
16:0 Palmitic	0.170	0.140	0.218
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
17:0 Heptadecanoic	< 0.0600	< 0.0600	< 0.0600
17:0 Heptadecanoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
18:0 Stearic	< 0.0600	< 0.0600	0.0807
18:0 Stearic	< 0.0600	< 0.0600	0.0814
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1 Total 18:1 Cis	0.249	0.273	0.401
18:1 Total 18:1 Cis	0.258	0.263	0.400
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 9c,12c Linoleic	0.746	0.731	1.19
18:2 9c,12c Linoleic	0.787	0.699	1.20
20:0 Arachidic	< 0.0600	< 0.0600	< 0.0600
20:0 Arachidic	< 0.0600	< 0.0600	< 0.0600
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	< 0.0600
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	< 0.0600

Table 2 (Continued)
Compositional Analyses
of Soybean Meal

Monsanto Sample ID	07PP8329-00038	07PP8329-00042	07PP8329-00046
Lot Number	GLP-0605-17393-S	GLP-0605-17394-S	GLP-0605-17395-S
Material Name	H3802	P93B87	93B15
Covance LIMS Number	71100205	71100212	71100207
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
20:1 Eicosenoic	< 0.0600	< 0.0600	< 0.0600
20:1 Eicosenoic	< 0.0600	< 0.0600	< 0.0600
18:3 Linolenic	0.113	0.100	0.170
18:3 Linolenic	0.118	0.0954	0.171
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600

Table 2 (Continued)
Compositional Analyses
of Soybean Meal

Monsanto Sample ID	07PP8329-00050	07PP8329-00054	07PP8329-00058
Lot Number	GLP-0604-17267-S	GLP-0604-17267-S	GLP-0604-17267-S
Material Name	MON 87769	MON 87769	MON 87769
Covance LIMS Number	71100218	71100208	71100210
Proximate (%)			
Moisture	3.70	2.46	1.67
Moisture	3.68	2.48	1.68
Protein	53.5	52.9	52.8
Protein	53.4	53.1	52.9
Fat	0.471	0.726	2.01
Fat	0.488	0.714	1.92
Ash	5.90	6.45	6.73
Ash	6.03	6.43	6.57
Carbohydrates	36.4	37.5	36.8
Carbohydrates	36.4	37.3	36.9
Acid Detergent Fiber (%)	4.65	5.08	5.77
Acid Detergent Fiber (%)	4.85	5.15	4.97
Neutral Detergent Fiber (%)	6.02	6.47	6.03
Neutral Detergent Fiber (%)	6.40	6.32	6.15
Phytic Acid (%)	1.15	1.45	1.27
Phytic Acid (%)	1.14	1.52	1.36
Trypsin Inhibitor (TIU/mg)**	< 1.00	2.83	3.39
Trypsin Inhibitor (TIU/mg)**	< 1.00	2.82	3.61

**TIU - Trypsin Inhibitor Unit

Table 2 (Continued)
Compositional Analyses
of Soybean Meal

Monsanto Sample ID	07PP8329-00050	07PP8329-00054	07PP8329-00058
Lot Number	GLP-0604-17267-S	GLP-0604-17267-S	GLP-0604-17267-S
Material Name	MON 87769	MON 87769	MON 87769
Covance LIMS Number	71100218	71100208	71100210
Amino Acids (mg/g)			
Aspartic Acid	58.3	58.7	59.9
Aspartic Acid	58.2	59.7	60.7
Threonine	19.8	19.5	19.6
Threonine	18.4	19.2	19.8
Serine	26.7	26.7	26.3
Serine	27.3	26.1	26.9
Glutamic Acid	93.5	94.1	95.6
Glutamic Acid	95.2	96.7	96.8
Proline	25.9	26.1	25.8
Proline	25.2	25.8	26.1
Glycine	22.0	22.3	22.9
Glycine	21.9	22.7	23.1
Alanine	21.5	21.9	22.8
Alanine	21.6	22.3	22.9
Cystine	7.53	7.46	7.79
Cystine	7.28	7.63	7.64
Valine	24.6	25.5	26.8
Valine	25.3	26.5	27.1
Methionine	7.43	7.49	7.76
Methionine	7.30	7.56	7.61
Isoleucine	23.4	24.1	25.5
Isoleucine	23.9	24.9	25.7
Leucine	39.0	39.7	40.9
Leucine	39.4	40.4	41.4
Tyrosine	17.8	18.2	17.0
Tyrosine	16.4	17.1	19.0
Phenylalanine	26.3	26.7	27.4
Phenylalanine	26.6	27.1	27.8
Lysine	31.5	32.3	33.0
Lysine	31.9	32.8	33.4
Histidine	13.5	13.8	14.0
Histidine	13.6	13.9	14.2
Arginine	43.8	43.8	40.3
Arginine	43.1	43.6	41.9
Tryptophan	6.41	6.53	6.85
Tryptophan	6.31	6.38	6.96

Table 2 (Continued)
Compositional Analyses
of Soybean Meal

Monsanto Sample ID	07PP8329-00050	07PP8329-00054	07PP8329-00058
Lot Number	GLP-0604-17267-S	GLP-0604-17267-S	GLP-0604-17267-S
Material Name	MON 87769	MON 87769	MON 87769
Covance LIMS Number	71100218	71100208	71100210
Fatty Acids (%)			
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
16:0 Palmitic	< 0.0600	0.0827	0.220
16:0 Palmitic	< 0.0600	0.0818	0.220
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
17:0 Heptadecanoic	< 0.0600	< 0.0600	< 0.0600
17:0 Heptadecanoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
18:0 Stearic	< 0.0600	< 0.0600	0.0720
18:0 Stearic	< 0.0600	< 0.0600	0.0720
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1 Total 18:1 Cis	< 0.0600	0.0846	0.268
18:1 Total 18:1 Cis	< 0.0600	0.0821	0.269
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 9c,12c Linoleic	0.0962	0.132	0.544
18:2 9c,12c Linoleic	0.0951	0.130	0.538
20:0 Arachidic	< 0.0600	< 0.0600	< 0.0600
20:0 Arachidic	< 0.0600	< 0.0600	< 0.0600
18:3 Gamma Linolenic	< 0.0600	< 0.0600	0.122
18:3 Gamma Linolenic	< 0.0600	< 0.0600	0.121
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	< 0.0600
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	< 0.0600

Table 2 (Continued)
Compositional Analyses
of Soybean Meal

Monsanto Sample ID	07PP8329-00050	07PP8329-00054	07PP8329-00058
Lot Number	GLP-0604-17267-S	GLP-0604-17267-S	GLP-0604-17267-S
Material Name	MON 87769	MON 87769	MON 87769
Covance LIMS Number	71100218	71100208	71100210
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
20:1 Eicosenoic	< 0.0600	< 0.0600	< 0.0600
20:1 Eicosenoic	< 0.0600	< 0.0600	< 0.0600
18:3 Linolenic	< 0.0600	0.0737	0.192
18:3 Linolenic	< 0.0600	0.0736	0.190
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	0.130	0.208	0.345
18:4 Stearidonic	0.129	0.209	0.343
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600

Table 2 (Continued)
Compositional Analyses
of Soybean Meal

Monsanto Sample ID	07PP8329-00062
Lot Number	GLP-0604-17267-S
Material Name	MON 87769
Covance LIMS Number	71100213
Proximate (%)	
Moisture	2.65
Moisture	2.71
Protein	51.8
Protein	51.9
Fat	1.43
Fat	1.36
Ash	6.72
Ash	6.73
Carbohydrates	37.4
Carbohydrates	37.3
Acid Detergent Fiber (%)	5.23
Acid Detergent Fiber (%)	4.63
Neutral Detergent Fiber (%)	6.34
Neutral Detergent Fiber (%)	5.84
Phytic Acid (%)	1.24
Phytic Acid (%)	1.27
Trypsin Inhibitor (TIU/mg)**	1.76
Trypsin Inhibitor (TIU/mg)**	< 1.00

**TIU - Trypsin Inhibitor Unit

Table 2 (Continued)
Compositional Analyses
of Soybean Meal

Monsanto Sample ID	07PP8329-00062
Lot Number	GLP-0604-17267-S
Material Name	MON 87769
Covance LIMS Number	71100213
Amino Acids (mg/g)	
Aspartic Acid	59.3
Aspartic Acid	60.1
Threonine	19.5
Threonine	19.7
Serine	26.9
Serine	27.4
Glutamic Acid	94.7
Glutamic Acid	96.2
Proline	26.5
Proline	25.6
Glycine	22.6
Glycine	22.8
Alanine	22.3
Alanine	22.5
Cystine	7.46
Cystine	7.49
Valine	25.9
Valine	26.2
Methionine	7.21
Methionine	7.35
Isoleucine	24.7
Isoleucine	25.0
Leucine	40.2
Leucine	40.7
Tyrosine	18.4
Tyrosine	16.8
Phenylalanine	27.2
Phenylalanine	27.4
Lysine	32.5
Lysine	32.8
Histidine	13.8
Histidine	13.9
Arginine	41.0
Arginine	40.3
Tryptophan	6.82
Tryptophan	6.86

Table 2 (Continued)
Compositional Analyses
of Soybean Meal

Monsanto Sample ID	07PP8329-00062
Lot Number	GLP-0604-17267-S
Material Name	MON 87769
Covance LIMS Number	71100213
Fatty Acids (%)	
08:0 Caprylic	< 0.0600
08:0 Caprylic	< 0.0600
10:0 Capric	< 0.0600
10:0 Capric	< 0.0600
12:0 Lauric	< 0.0600
12:0 Lauric	< 0.0600
14:0 Myristic	< 0.0600
14:0 Myristic	< 0.0600
14:1 Myristoleic	< 0.0600
14:1 Myristoleic	< 0.0600
15:0 Pentadecanoic	< 0.0600
15:0 Pentadecanoic	< 0.0600
15:1 Pentadecenoic	< 0.0600
15:1 Pentadecenoic	< 0.0600
16:0 Palmitic	0.155
16:0 Palmitic	0.157
16:1 Palmitoleic	< 0.0600
16:1 Palmitoleic	< 0.0600
17:0 Heptadecanoic	< 0.0600
17:0 Heptadecanoic	< 0.0600
17:1 Heptadecenoic	< 0.0600
17:1 Heptadecenoic	< 0.0600
18:0 Stearic	< 0.0600
18:0 Stearic	< 0.0600
18:1T Total 18:1 Trans	< 0.0600
18:1T Total 18:1 Trans	< 0.0600
18:1 Total 18:1 Cis	0.185
18:1 Total 18:1 Cis	0.189
18:2T Total 18:2 Trans	< 0.0600
18:2T Total 18:2 Trans	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600
18:2 9c,12c Linoleic	0.370
18:2 9c,12c Linoleic	0.380
20:0 Arachidic	< 0.0600
20:0 Arachidic	< 0.0600
18:3 Gamma Linolenic	0.0827
18:3 Gamma Linolenic	0.0847
18:3 9c,12c,15t (Trans ALA)	< 0.0600
18:3 9c,12c,15t (Trans ALA)	< 0.0600

Table 2 (Continued)
Compositional Analyses
of Soybean Meal

Monsanto Sample ID	07PP8329-00062
Lot Number	GLP-0604-17267-S
Material Name	MON 87769
Covance LIMS Number	71100213
18:3 Other 18:3 Trans	< 0.0600
18:3 Other 18:3 Trans	< 0.0600
20:1 Eicosenoic	< 0.0600
20:1 Eicosenoic	< 0.0600
18:3 Linolenic	0.130
18:3 Linolenic	0.134
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600
18:4 Stearidonic	0.229
18:4 Stearidonic	0.236
20:2 Eicosadienoic	< 0.0600
20:2 Eicosadienoic	< 0.0600
22:0 Behenic	< 0.0600
22:0 Behenic	< 0.0600
22:1 Erucic	< 0.0600
22:1 Erucic	< 0.0600
20:3 Eicosatrienoic	< 0.0600
20:3 Eicosatrienoic	< 0.0600
20:4 Arachidonic	< 0.0600
20:4 Arachidonic	< 0.0600
20:5 Eicosapentaenoic	< 0.0600
20:5 Eicosapentaenoic	< 0.0600
24:0 Lignoceric	< 0.0600
24:0 Lignoceric	< 0.0600
22:5 Docosapentaenoic	< 0.0600
22:5 Docosapentaenoic	< 0.0600
22:6 Docosahexaenoic	< 0.0600
22:6 Docosahexaenoic	< 0.0600

Table 3
Compositional Analyses
of Soybean RBD Oil

Monsanto Sample ID	07PP8329-00004	07PP8329-00008	07PP8329-00012
Lot Number	GLP-0604-17278-S	GLP-0604-17278-S	GLP-0604-17278-S
Material Name	A3525	A3525	A3525
Covance LIMS Number	71100226	71100222	71100221
Vitamin E (mg/100g)	5.21	5.35	8.62
Vitamin E (mg/100g)	5.06	5.26	9.04
Fatty Acids (%)			
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	0.0786	0.0761	0.0874
14:0 Myristic	0.0775	0.0761	0.0877
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
16:0 Palmitic	11.3	11.2	11.4
16:0 Palmitic	11.3	11.2	11.4
16:1 Palmitoleic	0.0929	0.0901	0.0870
16:1 Palmitoleic	0.0934	0.0896	0.0861
17:0 Heptadecanoic	0.103	0.0986	0.0903
17:0 Heptadecanoic	0.104	0.103	0.0855
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
18:0 Stearic	4.02	3.96	4.04
18:0 Stearic	4.03	3.96	4.05
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1 Total 18:1 Cis	18.7	18.7	18.8
18:1 Total 18:1 Cis	18.7	18.6	18.9
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	0.0629	0.0715	0.0798
18:2 6c,9c (Isolinoleic Acid)	0.0603	0.0704	0.0795
18:2 9c,12c Linoleic	53.9	53.7	54.2
18:2 9c,12c Linoleic	53.7	54.3	55.5
20:0 Arachidic	0.299	0.300	0.319
20:0 Arachidic	0.297	0.300	0.324
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600

Table 3 (Continued)
Compositional Analyses
of Soybean RBD Oil

Monsanto Sample ID	07PP8329-00004	07PP8329-00008	07PP8329-00012
Lot Number	GLP-0604-17278-S	GLP-0604-17278-S	GLP-0604-17278-S
Material Name	A3525	A3525	A3525
Covance LIMS Number	71100226	71100222	71100221
18:3 9c,12c,15t (Trans ALA)	0.152	0.147	0.101
18:3 9c,12c,15t (Trans ALA)	0.146	0.138	0.104
18:3 Other 18:3 Trans	0.0784	0.0849	0.0694
18:3 Other 18:3 Trans	0.0872	0.0785	0.0660
20:1 Eicosenoic	0.143	0.148	0.182
20:1 Eicosenoic	0.141	0.140	0.183
18:3 Linolenic	8.92	8.80	7.48
18:3 Linolenic	8.87	8.88	7.67
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	0.344	0.282	0.303
22:0 Behenic	0.338	0.292	0.312
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	0.100	0.109	0.139
24:0 Lignoceric	0.101	0.108	0.134
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosaheptaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosaheptaenoic	< 0.0600	< 0.0600	< 0.0600

Table 3 (Continued)
Compositional Analyses
of Soybean RBD Oil

Monsanto Sample ID	07PP8329-00016	07PP8329-00020	07PP8329-00024
Lot Number	GLP-0604-17278-S	GLP-0604-17260-S	GLP-0605-17389-S
Material Name	A3525	PN93B82	NK32Z3
Covance LIMS Number	71100230	71100233	71100228
Vitamin E (mg/100g)	9.42	3.51	5.45
Vitamin E (mg/100g)	9.12	3.61	5.46
Fatty Acids (%)			
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	0.0812	0.0662	0.0672
14:0 Myristic	0.0830	0.0671	0.0664
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
16:0 Palmitic	11.4	9.96	10.3
16:0 Palmitic	11.3	9.95	10.3
16:1 Palmitoleic	0.0895	0.103	0.0992
16:1 Palmitoleic	0.0910	0.103	0.0974
17:0 Heptadecanoic	0.0876	0.0938	0.0951
17:0 Heptadecanoic	0.0866	0.0953	0.0933
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
18:0 Stearic	4.04	3.89	3.96
18:0 Stearic	4.00	3.86	3.95
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1 Total 18:1 Cis	19.7	21.2	20.6
18:1 Total 18:1 Cis	19.5	21.1	20.4
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	0.0824	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	0.0860	< 0.0600	< 0.0600
18:2 9c,12c Linoleic	54.9	54.1	54.9
18:2 9c,12c Linoleic	55.9	53.8	53.9
20:0 Arachidic	0.312	0.295	0.307
20:0 Arachidic	0.319	0.293	0.303
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600

Table 3 (Continued)
Compositional Analyses
of Soybean RBD Oil

Monsanto Sample ID	07PP8329-00016	07PP8329-00020	07PP8329-00024
Lot Number	GLP-0604-17278-S	GLP-0604-17260-S	GLP-0605-17389-S
Material Name	A3525	PN93B82	NK32Z3
Covance LIMS Number	71100230	71100233	71100228
18:3 9c,12c,15t (Trans ALA)	0.163	0.114	0.135
18:3 9c,12c,15t (Trans ALA)	0.164	0.117	0.135
18:3 Other 18:3 Trans	0.0962	0.0612	0.0767
18:3 Other 18:3 Trans	0.0987	0.0608	0.0696
20:1 Eicosenoic	0.185	0.147	0.154
20:1 Eicosenoic	0.188	0.147	0.148
18:3 Linolenic	7.32	8.00	8.26
18:3 Linolenic	7.42	7.98	8.13
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	0.362	0.362	0.382
22:0 Behenic	0.359	0.350	0.372
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	0.133	0.0880	0.109
24:0 Lignoceric	0.137	0.0853	0.110
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosaheptaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosaheptaenoic	< 0.0600	< 0.0600	< 0.0600

Table 3 (Continued)
Compositional Analyses
of Soybean RBD Oil

Monsanto Sample ID	07PP8329-00028	07PP8329-00032	07PP8329-00036
Lot Number	GLP-0605-17390-S	GLP-0605-17391-S	GLP-0605-17392-S
Material Name	Quality Plus 365C	Midwest 3444	H3395
Covance LIMS Number	71100223	71100231	71100235
Vitamin E (mg/100g)	5.47	5.66	13.6
Vitamin E (mg/100g)	5.31	5.65	13.6
Fatty Acids (%)			
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	0.0610	0.0742	0.0809
14:0 Myristic	0.0713	0.0719	0.0792
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
16:0 Palmitic	10.3	10.3	10.3
16:0 Palmitic	10.3	10.2	10.3
16:1 Palmitoleic	0.102	0.0860	0.0804
16:1 Palmitoleic	0.0974	0.0843	0.0789
17:0 Heptadecanoic	0.0984	0.0890	0.0862
17:0 Heptadecanoic	0.103	0.0858	0.0857
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
18:0 Stearic	3.95	4.39	3.89
18:0 Stearic	3.95	4.39	3.86
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1 Total 18:1 Cis	20.6	20.9	19.4
18:1 Total 18:1 Cis	20.5	20.8	19.3
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	0.0718	< 0.0600	0.0703
18:2 6c,9c (Isolinoleic Acid)	0.0739	0.0638	0.0660
18:2 9c,12c Linoleic	54.0	53.4	56.4
18:2 9c,12c Linoleic	53.7	53.3	56.0
20:0 Arachidic	0.322	0.338	0.303
20:0 Arachidic	0.307	0.340	0.300
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600

Table 3 (Continued)
Compositional Analyses
of Soybean RBD Oil

Monsanto Sample ID	07PP8329-00028	07PP8329-00032	07PP8329-00036
Lot Number	GLP-0605-17390-S	GLP-0605-17391-S	GLP-0605-17392-S
Material Name	Quality Plus 365C	Midwest 3444	H3395
Covance LIMS Number	71100223	71100231	71100235
18:3 9c,12c,15t (Trans ALA)	0.100	0.149	0.114
18:3 9c,12c,15t (Trans ALA)	0.112	0.143	0.120
18:3 Other 18:3 Trans	0.0700	0.0871	0.0724
18:3 Other 18:3 Trans	0.0686	0.0771	0.0718
20:1 Eicosenoic	0.141	0.164	0.189
20:1 Eicosenoic	0.146	0.160	0.191
18:3 Linolenic	8.50	8.32	7.44
18:3 Linolenic	8.45	8.31	7.39
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	0.333	0.393	0.386
22:0 Behenic	0.337	0.395	0.381
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	0.110	0.116	0.133
24:0 Lignoceric	0.108	0.113	0.134
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosaheptaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosaheptaenoic	< 0.0600	< 0.0600	< 0.0600

Table 3 (Continued)
Compositional Analyses
of Soybean RBD Oil

Monsanto Sample ID	07PP8329-00040	07PP8329-00044	07PP8329-00048
Lot Number	GLP-0605-17393-S	GLP-0605-17394-S	GLP-0605-17395-S
Material Name	H3802	P93B87	93B15
Covance LIMS Number	71100220	71100232	71100224
Vitamin E (mg/100g)	7.93	10.9	15.5
Vitamin E (mg/100g)	7.65	11.3	15.2
Fatty Acids (%)			
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	0.0796	0.0731	0.0806
14:0 Myristic	0.0846	0.0755	0.0763
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
16:0 Palmitic	11.5	10.1	9.66
16:0 Palmitic	11.5	10.0	9.63
16:1 Palmitoleic	0.0762	0.0904	0.0906
16:1 Palmitoleic	0.0782	0.0898	0.0856
17:0 Heptadecanoic	0.0879	0.0788	0.0856
17:0 Heptadecanoic	0.0914	0.0783	0.0866
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
18:0 Stearic	4.35	3.95	3.86
18:0 Stearic	4.34	3.95	3.83
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1 Total 18:1 Cis	20.4	22.9	21.1
18:1 Total 18:1 Cis	20.3	22.9	21.0
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	0.0602	0.0635	0.0769
18:2 6c,9c (Isolinoleic Acid)	0.0627	0.0666	0.0746
18:2 9c,12c Linoleic	53.5	53.2	56.0
18:2 9c,12c Linoleic	54.1	54.5	55.2
20:0 Arachidic	0.327	0.314	0.350
20:0 Arachidic	0.339	0.322	0.343
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600

Table 3 (Continued)
Compositional Analyses
of Soybean RBD Oil

Monsanto Sample ID	07PP8329-00040	07PP8329-00044	07PP8329-00048
Lot Number	GLP-0605-17393-S	GLP-0605-17394-S	GLP-0605-17395-S
Material Name	H3802	P93B87	93B15
Covance LIMS Number	71100220	71100232	71100224
18:3 9c,12c,15t (Trans ALA)	0.0730	0.100	0.0734
18:3 9c,12c,15t (Trans ALA)	0.0686	0.100	0.0715
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
18:3 Other 18:3 Trans	< 0.0600	0.0635	< 0.0600
20:1 Eicosenoic	0.184	0.201	0.212
20:1 Eicosenoic	0.174	0.204	0.214
18:3 Linolenic	6.67	6.27	6.74
18:3 Linolenic	6.75	6.43	6.65
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	0.313	0.371	0.320
22:0 Behenic	0.315	0.379	0.314
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	0.115	0.129	0.184
24:0 Lignoceric	0.123	0.132	0.174
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosaheptaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosaheptaenoic	< 0.0600	< 0.0600	< 0.0600

Table 3 (Continued)
Compositional Analyses
of Soybean RBD Oil

Monsanto Sample ID	07PP8329-00052	07PP8329-00056	07PP8329-00060
Lot Number	GLP-0604-17267-S	GLP-0604-17267-S	GLP-0604-17267-S
Material Name	MON 87769	MON 87769	MON 87769
Covance LIMS Number	71100234	71100225	71100227
Vitamin E (mg/100g)	6.62	6.56	10.3
Vitamin E (mg/100g)	6.56	6.56	10.5
Fatty Acids (%)			
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	0.0735	0.0782	0.0847
14:0 Myristic	0.0787	0.0774	0.0847
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
16:0 Palmitic	11.7	11.9	12.0
16:0 Palmitic	11.7	11.9	12.0
16:1 Palmitoleic	0.0822	0.0814	0.0836
16:1 Palmitoleic	0.0804	0.0833	0.0833
17:0 Heptadecanoic	0.111	0.110	0.0911
17:0 Heptadecanoic	0.106	0.111	0.0872
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
18:0 Stearic	4.00	4.12	4.15
18:0 Stearic	3.99	4.10	4.13
18:1T Total 18:1 Trans	< 0.0600	0.0646	< 0.0600
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1 Total 18:1 Cis	14.7	14.4	16.7
18:1 Total 18:1 Cis	14.6	14.4	16.7
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	0.0850	0.0932	0.0920
18:2 6c,9c (Isolinoleic Acid)	0.0871	0.0934	0.0854
18:2 9c,12c Linoleic	19.6	20.5	29.8
18:2 9c,12c Linoleic	19.9	20.7	30.1
20:0 Arachidic	0.319	0.339	0.346
20:0 Arachidic	0.331	0.347	0.348
18:3 Gamma Linolenic	6.73	7.11	6.16
18:3 Gamma Linolenic	6.82	7.18	6.20

Table 3 (Continued)
Compositional Analyses
of Soybean RBD Oil

Monsanto Sample ID	07PP8329-00052	07PP8329-00056	07PP8329-00060
Lot Number	GLP-0604-17267-S	GLP-0604-17267-S	GLP-0604-17267-S
Material Name	MON 87769	MON 87769	MON 87769
Covance LIMS Number	71100234	71100225	71100227
18:3 9c,12c,15t (Trans ALA)	0.520	0.529	0.459
18:3 9c,12c,15t (Trans ALA)	0.508	0.527	0.477
18:3 Other 18:3 Trans	< 0.0600	0.0708	0.0755
18:3 Other 18:3 Trans	< 0.0600	0.0710	0.0758
20:1 Eicosenoic	0.154	0.156	0.195
20:1 Eicosenoic	0.156	0.162	0.197
18:3 Linolenic	10.2	10.8	10.2
18:3 Linolenic	10.4	11.0	10.3
18:4 6c,9c,12c,15t (Trans SDA)	0.378	0.310	0.178
18:4 6c,9c,12c,15t (Trans SDA)	0.362	0.310	0.174
18:4 Stearidonic	26.1	28.0	17.4
18:4 Stearidonic	26.5	28.3	17.6
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	0.255	0.327	0.337
22:0 Behenic	0.259	0.321	0.350
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	0.0761	0.0774	0.100
24:0 Lignoceric	0.0777	0.0728	0.107
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosaheptaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosaheptaenoic	< 0.0600	< 0.0600	< 0.0600

Table 3 (Continued)
Compositional Analyses
of Soybean RBD Oil

Monsanto Sample ID	07PP8329-00064
Lot Number	GLP-0604-17267-S
Material Name	MON 87769
Covance LIMS Number	71100229
Vitamin E (mg/100g)	10.9
Vitamin E (mg/100g)	10.9
Fatty Acids (%)	
08:0 Caprylic	< 0.0600
08:0 Caprylic	< 0.0600
10:0 Capric	< 0.0600
10:0 Capric	< 0.0600
12:0 Lauric	< 0.0600
12:0 Lauric	< 0.0600
14:0 Myristic	0.0858
14:0 Myristic	0.0880
14:1 Myristoleic	< 0.0600
14:1 Myristoleic	< 0.0600
15:0 Pentadecanoic	< 0.0600
15:0 Pentadecanoic	< 0.0600
15:1 Pentadecenoic	< 0.0600
15:1 Pentadecenoic	< 0.0600
16:0 Palmitic	11.9
16:0 Palmitic	11.9
16:1 Palmitoleic	0.0870
16:1 Palmitoleic	0.0855
17:0 Heptadecanoic	0.0901
17:0 Heptadecanoic	0.0906
17:1 Heptadecenoic	< 0.0600
17:1 Heptadecenoic	< 0.0600
18:0 Stearic	4.15
18:0 Stearic	4.15
18:1T Total 18:1 Trans	< 0.0600
18:1T Total 18:1 Trans	< 0.0600
18:1 Total 18:1 Cis	17.2
18:1 Total 18:1 Cis	17.1
18:2T Total 18:2 Trans	< 0.0600
18:2T Total 18:2 Trans	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	0.0904
18:2 6c,9c (Isolinoleic Acid)	0.0864
18:2 9c,12c Linoleic	30.8
18:2 9c,12c Linoleic	30.4
20:0 Arachidic	0.355
20:0 Arachidic	0.346
18:3 Gamma Linolenic	6.16
18:3 Gamma Linolenic	6.09

Table 3 (Continued)
Compositional Analyses
of Soybean RBD Oil

Monsanto Sample ID	07PP8329-00064
Lot Number	GLP-0604-17267-S
Material Name	MON 87769
Covance LIMS Number	71100229
18:3 9c,12c,15t (Trans ALA)	0.484
18:3 9c,12c,15t (Trans ALA)	0.476
18:3 Other 18:3 Trans	0.0738
18:3 Other 18:3 Trans	0.0800
20:1 Eicosenoic	0.199
20:1 Eicosenoic	0.195
18:3 Linolenic	10.3
18:3 Linolenic	10.2
18:4 6c,9c,12c,15t (Trans SDA)	0.175
18:4 6c,9c,12c,15t (Trans SDA)	0.169
18:4 Stearidonic	16.8
18:4 Stearidonic	16.6
20:2 Eicosadienoic	< 0.0600
20:2 Eicosadienoic	< 0.0600
22:0 Behenic	0.345
22:0 Behenic	0.326
22:1 Erucic	< 0.0600
22:1 Erucic	< 0.0600
20:3 Eicosatrienoic	< 0.0600
20:3 Eicosatrienoic	< 0.0600
20:4 Arachidonic	< 0.0600
20:4 Arachidonic	< 0.0600
20:5 Eicosapentaenoic	< 0.0600
20:5 Eicosapentaenoic	< 0.0600
24:0 Lignoceric	0.110
24:0 Lignoceric	0.106
22:5 Docosapentaenoic	< 0.0600
22:5 Docosapentaenoic	< 0.0600
22:6 Docosahexaenoic	< 0.0600
22:6 Docosahexaenoic	< 0.0600

Table 4
Compositional Analyses
of Soybean Protein Isolate

Monsanto Sample ID	07PP8329-00003	07PP8329-00007	07PP8329-00011
Lot Number	GLP-0604-17278-S	GLP-0604-17278-S	GLP-0604-17278-S
Material Name	A3525	A3525	A3525
Covance LIMS Number	71100236	71100237	71100239
Moisture (%)	2.47	2.74	3.55
Moisture (%)	2.59	2.83	3.57
Amino Acids (mg/g)			
Aspartic Acid	107	107	110
Aspartic Acid	108	110	110
Threonine	31.5	32.1	33.3
Threonine	31.8	33.4	32.1
Serine	46.4	48.3	49.4
Serine	47.6	49.8	49.2
Glutamic Acid	183	181	187
Glutamic Acid	185	188	186
Proline	48.4	47.9	48.6
Proline	47.6	49.8	49.4
Glycine	38.4	38.8	39.1
Glycine	38.8	40.2	39.3
Alanine	36.5	37.2	36.1
Alanine	37.0	38.7	37.2
Cystine	10.8	10.5	11.2
Cystine	11.0	10.7	10.9
Valine	45.5	45.5	43.9
Valine	45.6	46.6	44.8
Methionine	12.1	11.9	11.6
Methionine	12.0	12.0	11.3
Isoleucine	44.6	44.5	44.2
Isoleucine	44.7	45.1	44.7
Leucine	71.5	72.9	72.5
Leucine	72.3	74.6	72.6
Tyrosine	33.5	33.5	34.6
Tyrosine	33.6	35.1	34.4
Phenylalanine	48.7	49.5	50.1
Phenylalanine	49.1	50.7	50.0
Lysine	57.2	57.4	57.5
Lysine	57.7	58.9	57.6
Histidine	23.5	24.1	23.7
Histidine	23.7	24.7	23.8
Arginine	76.0	76.6	76.8
Arginine	76.3	79.2	76.8
Tryptophan	10.7	10.6	10.8
Tryptophan	10.5	10.7	10.8

Table 4 (Continued)
Compositional Analyses
of Soybean Protein Isolate

Monsanto Sample ID	07PP8329-00003	07PP8329-00007	07PP8329-00011
Lot Number	GLP-0604-17278-S	GLP-0604-17278-S	GLP-0604-17278-S
Material Name	A3525	A3525	A3525
Covance LIMS Number	71100236	71100237	71100239
Fatty Acids (%)			
08:0 Caprylic	< 0.00500	< 0.00500	< 0.00500
08:0 Caprylic	< 0.00500	< 0.00500	< 0.00500
10:0 Capric	< 0.00500	< 0.00500	< 0.00500
10:0 Capric	< 0.00500	< 0.00500	< 0.00500
12:0 Lauric	< 0.00500	< 0.00500	< 0.00500
12:0 Lauric	< 0.00500	< 0.00500	< 0.00500
14:0 Myristic	< 0.00500	< 0.00500	< 0.00500
14:0 Myristic	< 0.00500	< 0.00500	< 0.00500
14:1 Myristoleic	< 0.00500	< 0.00500	< 0.00500
14:1 Myristoleic	< 0.00500	< 0.00500	< 0.00500
15:0 Pentadecanoic	< 0.00500	< 0.00500	< 0.00500
15:0 Pentadecanoic	< 0.00500	< 0.00500	< 0.00500
15:1 Pentadecenoic	< 0.00500	< 0.00500	< 0.00500
15:1 Pentadecenoic	< 0.00500	< 0.00500	< 0.00500
16:0 Palmitic	0.580	0.592	0.589
16:0 Palmitic	0.537	0.611	0.594
16:1 Palmitoleic	< 0.00500	< 0.00500	< 0.00500
16:1 Palmitoleic	< 0.00500	< 0.00500	< 0.00500
17:0 Heptadecanoic	< 0.00500	< 0.00500	< 0.00500
17:0 Heptadecanoic	< 0.00500	0.00508	< 0.00500
17:1 Heptadecenoic	< 0.00500	< 0.00500	< 0.00500
17:1 Heptadecenoic	< 0.00500	< 0.00500	< 0.00500
18:0 Stearic	0.148	0.156	0.160
18:0 Stearic	0.132	0.161	0.162
18:1T Total 18:1 Trans	< 0.00500	< 0.00500	< 0.00500
18:1T Total 18:1 Trans	< 0.00500	< 0.00500	< 0.00500
18:1 Total 18:1 Cis	0.409	0.429	0.527
18:1 Total 18:1 Cis	0.375	0.481	0.516
18:2T Total 18:2 Trans	< 0.00500	< 0.00500	< 0.00500
18:2T Total 18:2 Trans	< 0.00500	< 0.00500	< 0.00500
18:2 6c,9c (Isolinoleic Acid)	< 0.00500	< 0.00500	< 0.00500
18:2 6c,9c (Isolinoleic Acid)	< 0.00500	< 0.00500	< 0.00500
18:2 9c,12c Linoleic	1.63	1.48	1.57
18:2 9c,12c Linoleic	1.25	1.54	1.59
20:0 Arachidic	0.00737	0.00747	0.00847
20:0 Arachidic	0.00528	0.00787	0.00906
18:3 Gamma Linolenic	< 0.00500	< 0.00500	< 0.00500
18:3 Gamma Linolenic	< 0.00500	< 0.00500	< 0.00500
18:3 9c,12c,15t (Trans ALA)	0.00727	0.00707	0.00647
18:3 9c,12c,15t (Trans ALA)	0.00607	0.00697	0.00657

Table 4 (Continued)
Compositional Analyses
of Soybean Protein Isolate

Monsanto Sample ID	07PP8329-00003	07PP8329-00007	07PP8329-00011
Lot Number	GLP-0604-17278-S	GLP-0604-17278-S	GLP-0604-17278-S
Material Name	A3525	A3525	A3525
Covance LIMS Number	71100236	71100237	71100239
18:3 Other 18:3 Trans	< 0.00500	< 0.00500	< 0.00500
18:3 Other 18:3 Trans	< 0.00500	< 0.00500	< 0.00500
20:1 Eicosenoic	< 0.00500	< 0.00500	< 0.00500
20:1 Eicosenoic	< 0.00500	< 0.00500	< 0.00500
18:3 Linolenic	0.265	0.218	0.210
18:3 Linolenic	0.211	0.224	0.212
18:4 6c,9c,12c,15t (Trans SDA)	< 0.00500	< 0.00500	< 0.00500
18:4 6c,9c,12c,15t (Trans SDA)	< 0.00500	< 0.00500	< 0.00500
18:4 Stearidonic	< 0.00500	< 0.00500	< 0.00500
18:4 Stearidonic	< 0.00500	< 0.00500	< 0.00500
20:2 Eicosadienoic	< 0.00500	< 0.00500	< 0.00500
20:2 Eicosadienoic	< 0.00500	< 0.00500	< 0.00500
22:0 Behenic	0.0123	0.0127	0.0118
22:0 Behenic	0.00926	0.0136	0.0125
22:1 Erucic	< 0.00500	< 0.00500	< 0.00500
22:1 Erucic	< 0.00500	< 0.00500	< 0.00500
20:3 Eicosatrienoic	< 0.00500	< 0.00500	< 0.00500
20:3 Eicosatrienoic	< 0.00500	< 0.00500	< 0.00500
20:4 Arachidonic	< 0.00500	< 0.00500	< 0.00500
20:4 Arachidonic	< 0.00500	< 0.00500	< 0.00500
20:5 Eicosapentaenoic	< 0.00500	< 0.00500	< 0.00500
20:5 Eicosapentaenoic	< 0.00500	< 0.00500	< 0.00500
24:0 Lignoceric	0.0253	0.00887	0.00967
24:0 Lignoceric	0.0208	0.0106	0.0105
22:5 Docosapentaenoic	< 0.00500	< 0.00500	< 0.00500
22:5 Docosapentaenoic	< 0.00500	< 0.00500	< 0.00500
22:6 Docosaheptaenoic	< 0.00500	< 0.00500	< 0.00500
22:6 Docosaheptaenoic	< 0.00500	< 0.00500	< 0.00500

Table 4 (Continued)
Compositional Analyses
of Soybean Protein Isolate

Monsanto Sample ID	07PP8329-00015	07PP8329-00019	07PP8329-00023
Lot Number	GLP-0604-17278-S	GLP-0604-17260-S	GLP-0605-17389-S
Material Name	A3525	PN93B82	NK32Z3
Covance LIMS Number	71100250	71100247	71100248
Moisture (%)	1.96	1.99	1.93
Moisture (%)	2.09	2.17	2.00
Amino Acids (mg/g)			
Aspartic Acid	105	110	108
Aspartic Acid	104	110	107
Threonine	31.9	31.5	32.8
Threonine	31.0	31.4	31.1
Serine	49.4	49.7	49.0
Serine	49.5	49.9	48.6
Glutamic Acid	178	192	184
Glutamic Acid	177	191	183
Proline	44.2	47.9	47.1
Proline	45.3	48.4	45.7
Glycine	38.2	39.5	38.5
Glycine	38.3	39.0	38.3
Alanine	37.6	36.8	36.7
Alanine	37.7	36.0	36.3
Cystine	10.9	11.6	10.8
Cystine	10.9	11.5	10.6
Valine	44.2	45.7	44.5
Valine	44.1	45.1	45.4
Methionine	12.1	12.2	12.2
Methionine	12.3	12.3	11.4
Isoleucine	43.9	44.5	43.7
Isoleucine	43.7	44.0	44.3
Leucine	72.4	73.1	73.0
Leucine	72.3	72.6	72.7
Tyrosine	34.6	34.2	34.3
Tyrosine	34.5	33.9	34.1
Phenylalanine	49.2	49.7	49.7
Phenylalanine	49.3	49.6	49.4
Lysine	56.8	57.3	57.7
Lysine	56.8	57.0	57.4
Histidine	23.4	24.5	24.3
Histidine	23.5	24.4	24.3
Arginine	74.4	79.4	76.2
Arginine	74.8	78.6	77.3
Tryptophan	10.8	11.3	10.7
Tryptophan	10.7	10.9	10.8

Table 4 (Continued)
Compositional Analyses
of Soybean Protein Isolate

Monsanto Sample ID	07PP8329-00015	07PP8329-00019	07PP8329-00023
Lot Number	GLP-0604-17278-S	GLP-0604-17260-S	GLP-0605-17389-S
Material Name	A3525	PN93B82	NK32Z3
Covance LIMS Number	71100250	71100247	71100248
Fatty Acids (%)			
08:0 Caprylic	< 0.00500	< 0.00500	< 0.00500
08:0 Caprylic	< 0.00500	< 0.00500	< 0.00500
10:0 Capric	< 0.00500	< 0.00500	< 0.00500
10:0 Capric	< 0.00500	< 0.00500	< 0.00500
12:0 Lauric	< 0.00500	< 0.00500	< 0.00500
12:0 Lauric	< 0.00500	< 0.00500	< 0.00500
14:0 Myristic	< 0.00500	< 0.00500	< 0.00500
14:0 Myristic	< 0.00500	< 0.00500	< 0.00500
14:1 Myristoleic	< 0.00500	< 0.00500	< 0.00500
14:1 Myristoleic	< 0.00500	< 0.00500	< 0.00500
15:0 Pentadecanoic	< 0.00500	< 0.00500	< 0.00500
15:0 Pentadecanoic	< 0.00500	< 0.00500	< 0.00500
15:1 Pentadecenoic	< 0.00500	< 0.00500	< 0.00500
15:1 Pentadecenoic	< 0.00500	< 0.00500	< 0.00500
16:0 Palmitic	0.784	0.427	0.538
16:0 Palmitic	0.670	0.416	0.560
16:1 Palmitoleic	< 0.00500	< 0.00500	< 0.00500
16:1 Palmitoleic	< 0.00500	< 0.00500	< 0.00500
17:0 Heptadecanoic	0.00537	< 0.00500	< 0.00500
17:0 Heptadecanoic	< 0.00500	< 0.00500	< 0.00500
17:1 Heptadecenoic	< 0.00500	< 0.00500	< 0.00500
17:1 Heptadecenoic	< 0.00500	< 0.00500	< 0.00500
18:0 Stearic	0.200	0.129	0.137
18:0 Stearic	0.160	0.124	0.145
18:1T Total 18:1 Trans	< 0.00500	< 0.00500	< 0.00500
18:1T Total 18:1 Trans	< 0.00500	< 0.00500	< 0.00500
18:1 Total 18:1 Cis	0.677	0.434	0.454
18:1 Total 18:1 Cis	0.569	0.420	0.473
18:2T Total 18:2 Trans	< 0.00500	< 0.00500	< 0.00500
18:2T Total 18:2 Trans	< 0.00500	< 0.00500	< 0.00500
18:2 6c,9c (Isolinoleic Acid)	< 0.00500	< 0.00500	< 0.00500
18:2 6c,9c (Isolinoleic Acid)	< 0.00500	< 0.00500	< 0.00500
18:2 9c,12c Linoleic	1.63	1.17	0.962
18:2 9c,12c Linoleic	1.04	1.16	1.16
20:0 Arachidic	0.0108	0.00538	0.00588
20:0 Arachidic	0.00667	0.00508	0.00647
18:3 Gamma Linolenic	< 0.00500	< 0.00500	< 0.00500
18:3 Gamma Linolenic	< 0.00500	< 0.00500	< 0.00500
18:3 9c,12c,15t (Trans ALA)	< 0.00500	< 0.00500	< 0.00500
18:3 9c,12c,15t (Trans ALA)	< 0.00500	< 0.00500	< 0.00500

Table 4 (Continued)
Compositional Analyses
of Soybean Protein Isolate

Monsanto Sample ID	07PP8329-00015	07PP8329-00019	07PP8329-00023
Lot Number	GLP-0604-17278-S	GLP-0604-17260-S	GLP-0605-17389-S
Material Name	A3525	PN93B82	NK32Z3
Covance LIMS Number	71100250	71100247	71100248
18:3 Other 18:3 Trans	< 0.00500	< 0.00500	< 0.00500
18:3 Other 18:3 Trans	< 0.00500	< 0.00500	< 0.00500
20:1 Eicosenoic	0.00578	< 0.00500	< 0.00500
20:1 Eicosenoic	< 0.00500	< 0.00500	< 0.00500
18:3 Linolenic	0.215	0.170	0.157
18:3 Linolenic	0.147	0.171	0.188
18:4 6c,9c,12c,15t (Trans SDA)	< 0.00500	< 0.00500	< 0.00500
18:4 6c,9c,12c,15t (Trans SDA)	< 0.00500	< 0.00500	< 0.00500
18:4 Stearidonic	< 0.00500	< 0.00500	< 0.00500
18:4 Stearidonic	< 0.00500	< 0.00500	< 0.00500
20:2 Eicosadienoic	< 0.00500	< 0.00500	< 0.00500
20:2 Eicosadienoic	< 0.00500	< 0.00500	< 0.00500
22:0 Behenic	0.0128	0.0103	0.00757
22:0 Behenic	0.00757	0.00976	0.00897
22:1 Erucic	< 0.00500	< 0.00500	< 0.00500
22:1 Erucic	< 0.00500	< 0.00500	< 0.00500
20:3 Eicosatrienoic	< 0.00500	< 0.00500	< 0.00500
20:3 Eicosatrienoic	< 0.00500	< 0.00500	< 0.00500
20:4 Arachidonic	< 0.00500	< 0.00500	< 0.00500
20:4 Arachidonic	< 0.00500	< 0.00500	< 0.00500
20:5 Eicosapentaenoic	< 0.00500	< 0.00500	< 0.00500
20:5 Eicosapentaenoic	< 0.00500	< 0.00500	< 0.00500
24:0 Lignoceric	0.0246	0.0122	0.0167
24:0 Lignoceric	0.0195	0.0126	0.0194
22:5 Docosapentaenoic	< 0.00500	< 0.00500	< 0.00500
22:5 Docosapentaenoic	< 0.00500	< 0.00500	< 0.00500
22:6 Docosaheptaenoic	< 0.00500	< 0.00500	< 0.00500
22:6 Docosaheptaenoic	< 0.00500	< 0.00500	< 0.00500

Table 4 (Continued)
Compositional Analyses
of Soybean Protein Isolate

Monsanto Sample ID	07PP8329-00027	07PP8329-00031	07PP8329-00035
Lot Number	GLP-0605-17390-S	GLP-0605-17391-S	GLP-0605-17392-S
Material Name	Quality Plus 365C	Midwest 3444	H3395
Covance LIMS Number	71100251	71100243	71100240
Moisture (%)	2.42	3.28	2.86
Moisture (%)	2.49	3.27	2.90
Amino Acids (mg/g)			
Aspartic Acid	105	106	111
Aspartic Acid	106	108	112
Threonine	31.1	31.5	31.9
Threonine	31.5	32.2	32.4
Serine	49.6	48.6	49.4
Serine	49.8	49.5	49.0
Glutamic Acid	181	184	188
Glutamic Acid	182	186	190
Proline	45.7	49.3	49.1
Proline	44.4	49.2	48.5
Glycine	37.8	37.8	38.5
Glycine	37.8	38.3	38.9
Alanine	36.4	35.9	37.3
Alanine	36.6	36.2	36.8
Cystine	10.8	10.9	10.9
Cystine	10.6	10.9	11.4
Valine	43.6	43.0	44.9
Valine	43.8	43.3	45.5
Methionine	12.1	11.3	11.6
Methionine	11.8	11.8	12.2
Isoleucine	42.7	42.4	45.2
Isoleucine	42.9	42.6	45.8
Leucine	71.4	70.9	73.7
Leucine	71.6	71.8	74.1
Tyrosine	33.0	33.0	34.7
Tyrosine	33.3	33.8	35.2
Phenylalanine	49.3	48.5	50.7
Phenylalanine	49.4	49.4	51.1
Lysine	56.7	55.9	57.6
Lysine	56.8	56.8	57.9
Histidine	23.3	23.6	23.7
Histidine	23.4	24.0	23.8
Arginine	76.3	76.4	78.1
Arginine	76.4	77.6	78.8
Tryptophan	10.1	10.5	10.6
Tryptophan	10.3	10.1	10.4

Table 4 (Continued)
Compositional Analyses
of Soybean Protein Isolate

Monsanto Sample ID	07PP8329-00027	07PP8329-00031	07PP8329-00035
Lot Number	GLP-0605-17390-S	GLP-0605-17391-S	GLP-0605-17392-S
Material Name	Quality Plus 365C	Midwest 3444	H3395
Covance LIMS Number	71100251	71100243	71100240
Fatty Acids (%)			
08:0 Caprylic	< 0.00500	< 0.00500	< 0.00500
08:0 Caprylic	< 0.00500	< 0.00500	< 0.00500
10:0 Capric	< 0.00500	< 0.00500	< 0.00500
10:0 Capric	< 0.00500	< 0.00500	< 0.00500
12:0 Lauric	< 0.00500	< 0.00500	< 0.00500
12:0 Lauric	< 0.00500	< 0.00500	< 0.00500
14:0 Myristic	< 0.00500	< 0.00500	< 0.00500
14:0 Myristic	< 0.00500	< 0.00500	< 0.00500
14:1 Myristoleic	< 0.00500	< 0.00500	< 0.00500
14:1 Myristoleic	< 0.00500	< 0.00500	< 0.00500
15:0 Pentadecanoic	< 0.00500	< 0.00500	< 0.00500
15:0 Pentadecanoic	< 0.00500	< 0.00500	< 0.00500
15:1 Pentadecenoic	< 0.00500	< 0.00500	< 0.00500
15:1 Pentadecenoic	< 0.00500	< 0.00500	< 0.00500
16:0 Palmitic	0.650	0.683	0.565
16:0 Palmitic	0.668	0.702	0.542
16:1 Palmitoleic	< 0.00500	< 0.00500	< 0.00500
16:1 Palmitoleic	< 0.00500	< 0.00500	< 0.00500
17:0 Heptadecanoic	0.00577	0.00537	< 0.00500
17:0 Heptadecanoic	0.00627	0.00597	< 0.00500
17:1 Heptadecenoic	< 0.00500	< 0.00500	< 0.00500
17:1 Heptadecenoic	< 0.00500	< 0.00500	< 0.00500
18:0 Stearic	0.178	0.222	0.161
18:0 Stearic	0.187	0.228	0.153
18:1T Total 18:1 Trans	< 0.00500	< 0.00500	< 0.00500
18:1T Total 18:1 Trans	< 0.00500	< 0.00500	< 0.00500
18:1 Total 18:1 Cis	0.557	0.795	0.525
18:1 Total 18:1 Cis	0.575	0.816	0.501
18:2T Total 18:2 Trans	< 0.00500	< 0.00500	< 0.00500
18:2T Total 18:2 Trans	< 0.00500	< 0.00500	< 0.00500
18:2 6c,9c (Isolinoleic Acid)	< 0.00500	< 0.00500	< 0.00500
18:2 6c,9c (Isolinoleic Acid)	< 0.00500	< 0.00500	< 0.00500
18:2 9c,12c Linoleic	1.48	2.16	1.39
18:2 9c,12c Linoleic	1.46	2.17	1.54
20:0 Arachidic	0.00886	0.0127	0.00667
20:0 Arachidic	0.0100	0.0127	0.00767
18:3 Gamma Linolenic	< 0.00500	< 0.00500	< 0.00500
18:3 Gamma Linolenic	< 0.00500	< 0.00500	< 0.00500
18:3 9c,12c,15t (Trans ALA)	< 0.00500	0.00727	0.00627
18:3 9c,12c,15t (Trans ALA)	< 0.00500	< 0.00500	0.00687

Table 4 (Continued)
Compositional Analyses
of Soybean Protein Isolate

Monsanto Sample ID	07PP8329-00027	07PP8329-00031	07PP8329-00035
Lot Number	GLP-0605-17390-S	GLP-0605-17391-S	GLP-0605-17392-S
Material Name	Quality Plus 365C	Midwest 3444	H3395
Covance LIMS Number	71100251	71100243	71100240
18:3 Other 18:3 Trans	< 0.00500	< 0.00500	< 0.00500
18:3 Other 18:3 Trans	< 0.00500	< 0.00500	< 0.00500
20:1 Eicosenoic	< 0.00500	0.00627	< 0.00500
20:1 Eicosenoic	< 0.00500	0.00568	< 0.00500
18:3 Linolenic	0.242	0.336	0.173
18:3 Linolenic	0.236	0.339	0.195
18:4 6c,9c,12c,15t (Trans SDA)	< 0.00500	< 0.00500	< 0.00500
18:4 6c,9c,12c,15t (Trans SDA)	< 0.00500	< 0.00500	< 0.00500
18:4 Stearidonic	< 0.00500	< 0.00500	< 0.00500
18:4 Stearidonic	< 0.00500	< 0.00500	< 0.00500
20:2 Eicosadienoic	< 0.00500	< 0.00500	< 0.00500
20:2 Eicosadienoic	< 0.00500	< 0.00500	< 0.00500
22:0 Behenic	0.0128	0.0172	0.0114
22:0 Behenic	0.0133	0.0181	0.0135
22:1 Erucic	< 0.00500	< 0.00500	< 0.00500
22:1 Erucic	< 0.00500	< 0.00500	< 0.00500
20:3 Eicosatrienoic	< 0.00500	< 0.00500	< 0.00500
20:3 Eicosatrienoic	< 0.00500	< 0.00500	< 0.00500
20:4 Arachidonic	< 0.00500	< 0.00500	< 0.00500
20:4 Arachidonic	< 0.00500	< 0.00500	< 0.00500
20:5 Eicosapentaenoic	< 0.00500	< 0.00500	< 0.00500
20:5 Eicosapentaenoic	< 0.00500	< 0.00500	< 0.00500
24:0 Lignoceric	0.0210	0.0151	0.0189
24:0 Lignoceric	0.0182	0.0201	0.0159
22:5 Docosapentaenoic	< 0.00500	< 0.00500	< 0.00500
22:5 Docosapentaenoic	< 0.00500	< 0.00500	< 0.00500
22:6 Docosaheptaenoic	< 0.00500	< 0.00500	< 0.00500
22:6 Docosaheptaenoic	< 0.00500	< 0.00500	< 0.00500

Table 4 (Continued)
Compositional Analyses
of Soybean Protein Isolate

Monsanto Sample ID	07PP8329-00039	07PP8329-00043	07PP8329-00047
Lot Number	GLP-0605-17393-S	GLP-0605-17394-S	GLP-0605-17395-S
Material Name	H3802	P93B87	93B15
Covance LIMS Number	71100249	71100242	71100246
Moisture (%)	2.80	2.54	2.47
Moisture (%)	2.80	2.52	2.54
Amino Acids (mg/g)			
Aspartic Acid	106	106	104
Aspartic Acid	106	106	105
Threonine	32.6	31.7	28.9
Threonine	31.4	32.0	28.9
Serine	49.0	48.4	46.5
Serine	49.7	48.3	46.7
Glutamic Acid	176	180	178
Glutamic Acid	177	181	180
Proline	44.2	48.1	40.8
Proline	44.1	45.0	43.1
Glycine	38.8	38.1	36.2
Glycine	38.8	38.0	36.2
Alanine	37.2	36.3	34.8
Alanine	37.1	35.8	34.6
Cystine	10.9	11.2	10.6
Cystine	10.7	11.1	11.0
Valine	43.9	43.8	42.3
Valine	44.4	43.7	42.3
Methionine	11.6	11.4	11.0
Methionine	11.6	11.6	11.0
Isoleucine	43.0	43.4	42.8
Isoleucine	43.4	43.3	42.8
Leucine	71.5	70.9	69.0
Leucine	71.7	70.8	69.1
Tyrosine	34.5	32.3	32.6
Tyrosine	34.4	33.8	32.3
Phenylalanine	48.9	48.3	47.4
Phenylalanine	49.1	48.2	47.8
Lysine	55.6	56.3	55.2
Lysine	56.0	56.3	55.5
Histidine	24.0	23.2	22.7
Histidine	24.0	23.2	22.7
Arginine	73.6	73.9	73.3
Arginine	74.0	74.4	73.7
Tryptophan	11.0	10.7	10.2
Tryptophan	11.0	10.4	10.2

Table 4 (Continued)
Compositional Analyses
of Soybean Protein Isolate

Monsanto Sample ID	07PP8329-00039	07PP8329-00043	07PP8329-00047
Lot Number	GLP-0605-17393-S	GLP-0605-17394-S	GLP-0605-17395-S
Material Name	H3802	P93B87	93B15
Covance LIMS Number	71100249	71100242	71100246
Fatty Acids (%)			
08:0 Caprylic	< 0.00500	< 0.00500	< 0.00500
08:0 Caprylic	< 0.00500	< 0.00500	< 0.00500
10:0 Capric	< 0.00500	< 0.00500	< 0.00500
10:0 Capric	< 0.00500	< 0.00500	< 0.00500
12:0 Lauric	< 0.00500	< 0.00500	< 0.00500
12:0 Lauric	< 0.00500	< 0.00500	< 0.00500
14:0 Myristic	< 0.00500	< 0.00500	0.00766
14:0 Myristic	< 0.00500	< 0.00500	< 0.00500
14:1 Myristoleic	< 0.00500	< 0.00500	< 0.00500
14:1 Myristoleic	< 0.00500	< 0.00500	< 0.00500
15:0 Pentadecanoic	< 0.00500	< 0.00500	< 0.00500
15:0 Pentadecanoic	< 0.00500	< 0.00500	< 0.00500
15:1 Pentadecenoic	< 0.00500	< 0.00500	< 0.00500
15:1 Pentadecenoic	< 0.00500	< 0.00500	< 0.00500
16:0 Palmitic	0.681	0.824	0.961
16:0 Palmitic	0.659	0.786	0.933
16:1 Palmitoleic	< 0.00500	< 0.00500	0.00657
16:1 Palmitoleic	< 0.00500	< 0.00500	0.00627
17:0 Heptadecanoic	0.00547	0.00657	0.00826
17:0 Heptadecanoic	< 0.00500	0.00597	0.00806
17:1 Heptadecenoic	< 0.00500	< 0.00500	< 0.00500
17:1 Heptadecenoic	< 0.00500	< 0.00500	< 0.00500
18:0 Stearic	0.199	0.252	0.326
18:0 Stearic	0.190	0.237	0.314
18:1T Total 18:1 Trans	< 0.00500	< 0.00500	< 0.00500
18:1T Total 18:1 Trans	< 0.00500	< 0.00500	< 0.00500
18:1 Total 18:1 Cis	0.627	1.09	1.40
18:1 Total 18:1 Cis	0.604	1.04	1.36
18:2T Total 18:2 Trans	< 0.00500	< 0.00500	< 0.00500
18:2T Total 18:2 Trans	< 0.00500	< 0.00500	< 0.00500
18:2 6c,9c (Isolinoleic Acid)	< 0.00500	< 0.00500	0.00657
18:2 6c,9c (Isolinoleic Acid)	< 0.00500	< 0.00500	0.00597
18:2 9c,12c Linoleic	1.59	2.63	3.61
18:2 9c,12c Linoleic	1.51	2.65	3.49
20:0 Arachidic	0.0101	0.0145	0.0226
20:0 Arachidic	0.00926	0.0137	0.0224
18:3 Gamma Linolenic	< 0.00500	< 0.00500	< 0.00500
18:3 Gamma Linolenic	< 0.00500	< 0.00500	< 0.00500
18:3 9c,12c,15t (Trans ALA)	< 0.00500	< 0.00500	0.00547
18:3 9c,12c,15t (Trans ALA)	< 0.00500	< 0.00500	< 0.00500

Table 4 (Continued)
Compositional Analyses
of Soybean Protein Isolate

Monsanto Sample ID	07PP8329-00039	07PP8329-00043	07PP8329-00047
Lot Number	GLP-0605-17393-S	GLP-0605-17394-S	GLP-0605-17395-S
Material Name	H3802	P93B87	93B15
Covance LIMS Number	71100249	71100242	71100246
18:3 Other 18:3 Trans	< 0.00500	< 0.00500	< 0.00500
18:3 Other 18:3 Trans	< 0.00500	< 0.00500	< 0.00500
20:1 Eicosenoic	0.00528	0.00837	0.0125
20:1 Eicosenoic	0.00528	0.00817	0.0121
18:3 Linolenic	0.212	0.314	0.478
18:3 Linolenic	0.202	0.315	0.481
18:4 6c,9c,12c,15t (Trans SDA)	< 0.00500	< 0.00500	< 0.00500
18:4 6c,9c,12c,15t (Trans SDA)	< 0.00500	< 0.00500	< 0.00500
18:4 Stearidonic	< 0.00500	< 0.00500	< 0.00500
18:4 Stearidonic	< 0.00500	< 0.00500	< 0.00500
20:2 Eicosadienoic	< 0.00500	< 0.00500	< 0.00500
20:2 Eicosadienoic	< 0.00500	< 0.00500	< 0.00500
22:0 Behenic	0.0133	0.0207	0.0263
22:0 Behenic	0.0121	0.0204	0.0248
22:1 Erucic	< 0.00500	< 0.00500	< 0.00500
22:1 Erucic	< 0.00500	< 0.00500	< 0.00500
20:3 Eicosatrienoic	< 0.00500	< 0.00500	< 0.00500
20:3 Eicosatrienoic	< 0.00500	< 0.00500	< 0.00500
20:4 Arachidonic	< 0.00500	< 0.00500	< 0.00500
20:4 Arachidonic	< 0.00500	< 0.00500	< 0.00500
20:5 Eicosapentaenoic	< 0.00500	< 0.00500	< 0.00500
20:5 Eicosapentaenoic	< 0.00500	< 0.00500	< 0.00500
24:0 Lignoceric	0.0235	0.0217	0.0286
24:0 Lignoceric	0.0228	0.0208	0.0319
22:5 Docosapentaenoic	< 0.00500	< 0.00500	< 0.00500
22:5 Docosapentaenoic	< 0.00500	< 0.00500	< 0.00500
22:6 Docosaheptaenoic	< 0.00500	< 0.00500	< 0.00500
22:6 Docosaheptaenoic	< 0.00500	< 0.00500	< 0.00500

Table 4 (Continued)
Compositional Analyses
of Soybean Protein Isolate

Monsanto Sample ID	07PP8329-00051	07PP8329-00055	07PP8329-00059
Lot Number	GLP-0604-17267-S	GLP-0604-17267-S	GLP-0604-17267-S
Material Name	MON 87769	MON 87769	MON 87769
Covance LIMS Number	71100238	71100244	71100241
Moisture (%)	2.51	3.30	3.42
Moisture (%)	2.60	3.27	3.41
Amino Acids (mg/g)			
Aspartic Acid	111	102	106
Aspartic Acid	110	105	106
Threonine	32.5	29.7	32.3
Threonine	32.4	30.2	32.5
Serine	49.6	47.8	47.8
Serine	49.5	47.1	48.4
Glutamic Acid	192	178	179
Glutamic Acid	191	182	179
Proline	50.7	44.6	47.8
Proline	51.0	45.7	49.1
Glycine	38.5	37.2	38.4
Glycine	38.9	37.8	38.2
Alanine	35.3	34.6	37.0
Alanine	36.0	35.6	36.6
Cystine	11.2	10.9	11.1
Cystine	11.4	10.7	11.0
Valine	43.7	41.9	44.0
Valine	43.0	44.0	42.8
Methionine	11.5	11.8	11.9
Methionine	11.8	11.5	11.8
Isoleucine	43.3	41.1	43.7
Isoleucine	42.9	42.7	42.8
Leucine	71.9	68.2	71.2
Leucine	71.3	69.7	71.1
Tyrosine	33.8	32.0	34.0
Tyrosine	33.6	32.5	33.9
Phenylalanine	49.9	46.6	48.7
Phenylalanine	49.5	47.7	48.6
Lysine	57.4	54.5	56.2
Lysine	56.9	55.7	55.9
Histidine	23.9	22.7	23.2
Histidine	23.7	23.2	23.2
Arginine	79.1	73.3	74.6
Arginine	78.6	75.4	74.6
Tryptophan	10.4	10.6	10.6
Tryptophan	10.4	10.3	10.5

Table 4 (Continued)
Compositional Analyses
of Soybean Protein Isolate

Monsanto Sample ID	07PP8329-00051	07PP8329-00055	07PP8329-00059
Lot Number	GLP-0604-17267-S	GLP-0604-17267-S	GLP-0604-17267-S
Material Name	MON 87769	MON 87769	MON 87769
Covance LIMS Number	71100238	71100244	71100241
Fatty Acids (%)			
08:0 Caprylic	< 0.00500	< 0.00500	< 0.00500
08:0 Caprylic	< 0.00500	< 0.00500	< 0.00500
10:0 Capric	< 0.00500	< 0.00500	< 0.00500
10:0 Capric	< 0.00500	< 0.00500	< 0.00500
12:0 Lauric	< 0.00500	< 0.00500	< 0.00500
12:0 Lauric	< 0.00500	< 0.00500	< 0.00500
14:0 Myristic	< 0.00500	< 0.00500	< 0.00500
14:0 Myristic	< 0.00500	0.00557	< 0.00500
14:1 Myristoleic	< 0.00500	< 0.00500	< 0.00500
14:1 Myristoleic	< 0.00500	< 0.00500	< 0.00500
15:0 Pentadecanoic	< 0.00500	< 0.00500	< 0.00500
15:0 Pentadecanoic	< 0.00500	< 0.00500	< 0.00500
15:1 Pentadecenoic	< 0.00500	< 0.00500	< 0.00500
15:1 Pentadecenoic	< 0.00500	< 0.00500	< 0.00500
16:0 Palmitic	0.644	0.751	0.691
16:0 Palmitic	0.632	0.808	0.818
16:1 Palmitoleic	< 0.00500	< 0.00500	< 0.00500
16:1 Palmitoleic	< 0.00500	< 0.00500	< 0.00500
17:0 Heptadecanoic	0.00508	0.00627	< 0.00500
17:0 Heptadecanoic	0.00508	0.00756	0.00557
17:1 Heptadecenoic	< 0.00500	< 0.00500	< 0.00500
17:1 Heptadecenoic	< 0.00500	< 0.00500	< 0.00500
18:0 Stearic	0.170	0.201	0.176
18:0 Stearic	0.167	0.224	0.225
18:1T Total 18:1 Trans	< 0.00500	< 0.00500	< 0.00500
18:1T Total 18:1 Trans	< 0.00500	< 0.00500	< 0.00500
18:1 Total 18:1 Cis	0.408	0.524	0.578
18:1 Total 18:1 Cis	0.401	0.566	0.698
18:2T Total 18:2 Trans	< 0.00500	< 0.00500	< 0.00500
18:2T Total 18:2 Trans	< 0.00500	< 0.00500	< 0.00500
18:2 6c,9c (Isolinoleic Acid)	< 0.00500	< 0.00500	0.00518
18:2 6c,9c (Isolinoleic Acid)	< 0.00500	< 0.00500	0.00577
18:2 9c,12c Linoleic	0.569	0.561	1.12
18:2 9c,12c Linoleic	0.571	0.660	1.28
20:0 Arachidic	0.0108	0.0109	0.0100
20:0 Arachidic	0.0100	0.0132	0.0135
18:3 Gamma Linolenic	0.209	0.179	0.187
18:3 Gamma Linolenic	0.209	0.205	0.199
18:3 9c,12c,15t (Trans ALA)	0.0217	0.0209	0.0213
18:3 9c,12c,15t (Trans ALA)	0.0222	0.0245	0.0231

Table 4 (Continued)
Compositional Analyses
of Soybean Protein Isolate

Monsanto Sample ID	07PP8329-00051	07PP8329-00055	07PP8329-00059
Lot Number	GLP-0604-17267-S	GLP-0604-17267-S	GLP-0604-17267-S
Material Name	MON 87769	MON 87769	MON 87769
Covance LIMS Number	71100238	71100244	71100241
18:3 Other 18:3 Trans	< 0.00500	< 0.00500	< 0.00500
18:3 Other 18:3 Trans	< 0.00500	< 0.00500	< 0.00500
20:1 Eicosenoic	< 0.00500	0.00518	0.00528
20:1 Eicosenoic	< 0.00500	0.00607	0.00717
18:3 Linolenic	0.383	0.361	0.396
18:3 Linolenic	0.386	0.413	0.417
18:4 6c,9c,12c,15t (Trans SDA)	0.0108	0.0121	0.00856
18:4 6c,9c,12c,15t (Trans SDA)	0.0105	0.0128	0.0087
18:4 Stearidonic	0.621	0.542	0.431
18:4 Stearidonic	0.621	0.599	0.415
20:2 Eicosadienoic	< 0.00500	< 0.00500	< 0.00500
20:2 Eicosadienoic	< 0.00500	< 0.00500	< 0.00500
22:0 Behenic	0.0116	0.0108	0.0113
22:0 Behenic	0.0113	0.0134	0.0161
22:1 Erucic	< 0.00500	< 0.00500	< 0.00500
22:1 Erucic	< 0.00500	< 0.00500	< 0.00500
20:3 Eicosatrienoic	< 0.00500	< 0.00500	< 0.00500
20:3 Eicosatrienoic	< 0.00500	< 0.00500	< 0.00500
20:4 Arachidonic	< 0.00500	< 0.00500	< 0.00500
20:4 Arachidonic	< 0.00500	< 0.00500	< 0.00500
20:5 Eicosapentaenoic	< 0.00500	< 0.00500	< 0.00500
20:5 Eicosapentaenoic	< 0.00500	< 0.00500	< 0.00500
24:0 Lignoceric	0.00698	0.0134	0.0113
24:0 Lignoceric	0.00717	0.0147	0.0147
22:5 Docosapentaenoic	< 0.00500	< 0.00500	< 0.00500
22:5 Docosapentaenoic	< 0.00500	< 0.00500	< 0.00500
22:6 Docosaheptaenoic	< 0.00500	< 0.00500	< 0.00500
22:6 Docosaheptaenoic	< 0.00500	< 0.00500	< 0.00500

Table 4 (Continued)
Compositional Analyses
of Soybean Protein Isolate

Monsanto Sample ID	07PP8329-00063
Lot Number	GLP-0604-17267-S
Material Name	MON 87769
Covance LIMS Number	71100245
Moisture (%)	3.62
Moisture (%)	3.65
Amino Acids (mg/g)	
Aspartic Acid	105
Aspartic Acid	105
Threonine	30.5
Threonine	31.6
Serine	46.7
Serine	47.0
Glutamic Acid	177
Glutamic Acid	178
Proline	43.7
Proline	45.7
Glycine	37.6
Glycine	37.6
Alanine	35.6
Alanine	35.4
Cystine	11.1
Cystine	10.8
Valine	44.2
Valine	43.6
Methionine	11.8
Methionine	11.5
Isoleucine	43.6
Isoleucine	43.1
Leucine	70.0
Leucine	70.1
Tyrosine	32.7
Tyrosine	33.2
Phenylalanine	48.1
Phenylalanine	48.1
Lysine	55.2
Lysine	55.4
Histidine	22.9
Histidine	22.9
Arginine	73.4
Arginine	73.3
Tryptophan	10.5
Tryptophan	10.8

Table 4 (Continued)
Compositional Analyses
of Soybean Protein Isolate

Monsanto Sample ID	07PP8329-00063
Lot Number	GLP-0604-17267-S
Material Name	MON 87769
Covance LIMS Number	71100245
Fatty Acids (%)	
08:0 Caprylic	< 0.00500
08:0 Caprylic	< 0.00500
10:0 Capric	< 0.00500
10:0 Capric	< 0.00500
12:0 Lauric	< 0.00500
12:0 Lauric	< 0.00500
14:0 Myristic	< 0.00500
14:0 Myristic	< 0.00500
14:1 Myristoleic	< 0.00500
14:1 Myristoleic	< 0.00500
15:0 Pentadecanoic	< 0.00500
15:0 Pentadecanoic	< 0.00500
15:1 Pentadecenoic	< 0.00500
15:1 Pentadecenoic	< 0.00500
16:0 Palmitic	0.719
16:0 Palmitic	0.750
16:1 Palmitoleic	< 0.00500
16:1 Palmitoleic	< 0.00500
17:0 Heptadecanoic	0.00508
17:0 Heptadecanoic	0.00537
17:1 Heptadecenoic	< 0.00500
17:1 Heptadecenoic	< 0.00500
18:0 Stearic	0.192
18:0 Stearic	0.204
18:1T Total 18:1 Trans	< 0.00500
18:1T Total 18:1 Trans	< 0.00500
18:1 Total 18:1 Cis	0.660
18:1 Total 18:1 Cis	0.688
18:2T Total 18:2 Trans	< 0.00500
18:2T Total 18:2 Trans	< 0.00500
18:2 6c,9c (Isolinoleic Acid)	< 0.00500
18:2 6c,9c (Isolinoleic Acid)	< 0.00500
18:2 9c,12c Linoleic	0.859
18:2 9c,12c Linoleic	0.994
20:0 Arachidic	0.0103
20:0 Arachidic	0.0113
18:3 Gamma Linolenic	0.145
18:3 Gamma Linolenic	0.165
18:3 9c,12c,15t (Trans ALA)	0.0166
18:3 9c,12c,15t (Trans ALA)	0.0184

Table 4 (Continued)
Compositional Analyses
of Soybean Protein Isolate

Monsanto Sample ID	07PP8329-00063
Lot Number	GLP-0604-17267-S
Material Name	MON 87769
Covance LIMS Number	71100245
18:3 Other 18:3 Trans	< 0.00500
18:3 Other 18:3 Trans	< 0.00500
20:1 Eicosenoic	0.00558
20:1 Eicosenoic	0.00657
18:3 Linolenic	0.309
18:3 Linolenic	0.352
18:4 6c,9c,12c,15t (Trans SDA)	0.00916
18:4 6c,9c,12c,15t (Trans SDA)	0.00926
18:4 Stearidonic	0.340
18:4 Stearidonic	0.379
20:2 Eicosadienoic	< 0.00500
20:2 Eicosadienoic	< 0.00500
22:0 Behenic	0.0103
22:0 Behenic	0.0112
22:1 Erucic	< 0.00500
22:1 Erucic	< 0.00500
20:3 Eicosatrienoic	< 0.00500
20:3 Eicosatrienoic	< 0.00500
20:4 Arachidonic	< 0.00500
20:4 Arachidonic	< 0.00500
20:5 Eicosapentaenoic	< 0.00500
20:5 Eicosapentaenoic	< 0.00500
24:0 Lignoceric	0.0120
24:0 Lignoceric	0.0130
22:5 Docosapentaenoic	< 0.00500
22:5 Docosapentaenoic	< 0.00500
22:6 Docosaheptaenoic	< 0.00500
22:6 Docosaheptaenoic	< 0.00500

Table 5
Compositional Analyses
of Soybean Crude Lecthin

Monsanto Sample ID	07PP8329-00001	07PP8329-00005	07PP8329-00009
Seed Lot Number	GLP-0604-17278-S	GLP-0604-17278-S	GLP-0604-17278-S
Material Name	A3525	A3525	A3525
Covance LIMS Number	71100266	71100255	71100253
Phosphatides (%)			
L-alpha-Phosphatidic Acid	4.17	3.93	3.30
L-alpha-Phosphatidic Acid	3.76	4.31	3.34
L-alpha-Phosphatidylethanolamine	4.94	4.24	7.39
L-alpha-Phosphatidylethanolamine	4.51	4.55	7.45
L-alpha-Phosphatidylcholine	6.50	5.15	10.2
L-alpha-Phosphatidylcholine	5.69	5.58	10.3
L-alpha-Phosphatidylinositol	4.65	3.86	5.84
L-alpha-Phosphatidylinositol	4.02	4.14	5.93
Fatty Acids (%)			
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
16:0 Palmitic	6.86	7.95	6.79
16:0 Palmitic	6.64	7.92	6.87
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
17:0 Heptadecanoic	< 0.0600	0.0728	< 0.0600
17:0 Heptadecanoic	< 0.0600	0.0636	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
18:0 Stearic	1.97	2.33	1.65
18:0 Stearic	1.89	2.33	1.67
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1 Total 18:1 Cis	6.74	8.67	5.23
18:1 Total 18:1 Cis	6.53	8.64	5.31

Table 5 (Continued)
Compositional Analyses
of Soybean Crude Lecthin

Monsanto Sample ID	07PP8329-00001	07PP8329-00005	07PP8329-00009
Seed Lot Number	GLP-0604-17278-S	GLP-0604-17278-S	GLP-0604-17278-S
Material Name	A3525	A3525	A3525
Covance LIMS Number	71100266	71100255	71100253
Fatty Acids (%)			
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 9c,12c Linoleic	29.1	33.6	24.5
18:2 9c,12c Linoleic	28.9	33.3	25.5
20:0 Arachidic	0.127	0.151	0.0939
20:0 Arachidic	0.119	0.151	0.0969
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	< 0.0600
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	< 0.0600
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
20:1 Eicosenoic	< 0.0600	0.0738	< 0.0600
20:1 Eicosenoic	< 0.0600	0.0662	< 0.0600
18:3 Linolenic	4.75	5.48	3.37
18:3 Linolenic	4.75	5.37	3.51
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	0.181	0.201	0.154
22:0 Behenic	0.177	0.198	0.153
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	0.100	0.104	0.0981
24:0 Lignoceric	0.102	0.107	0.106
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600

Table 5 (Continued)
Compositional Analyses
of Soybean Crude Lecthin

Monsanto Sample ID	07PP8329-00013	07PP8329-00017	07PP8329-00021
Seed Lot Number	GLP-0604-17278-S	GLP-0604-17260-S	GLP-0605-17389-S
Material Name	A3525	PN93B82	NK32Z3
Covance LIMS Number	71100254	71100265	71100252
Phosphatides (%)			
L-alpha-Phosphatidic Acid	2.88	5.67	4.31
L-alpha-Phosphatidic Acid	2.60	5.63	4.25
L-alpha-Phosphatidylethanolamine	5.66	5.10	5.80
L-alpha-Phosphatidylethanolamine	5.11	4.99	5.71
L-alpha-Phosphatidylcholine	7.78	6.38	7.67
L-alpha-Phosphatidylcholine	7.03	6.15	7.56
L-alpha-Phosphatidylinositol	4.68	5.05	4.86
L-alpha-Phosphatidylinositol	4.26	4.88	4.79
Fatty Acids (%)			
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
16:0 Palmitic	8.31	7.17	7.11
16:0 Palmitic	8.80	7.37	7.31
16:1 Palmitoleic	0.0627	< 0.0600	< 0.0600
16:1 Palmitoleic	0.0641	0.0623	< 0.0600
17:0 Heptadecanoic	0.0616	0.0624	0.0618
17:0 Heptadecanoic	0.0723	0.0654	0.0627
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
18:0 Stearic	2.46	2.31	2.19
18:0 Stearic	2.58	2.40	2.27
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1 Total 18:1 Cis	10.3	9.54	9.03
18:1 Total 18:1 Cis	10.6	9.86	9.38

Table 5 (Continued)
Compositional Analyses
of Soybean Crude Lecthin

Monsanto Sample ID	07PP8329-00013	07PP8329-00017	07PP8329-00021
Seed Lot Number	GLP-0604-17278-S	GLP-0604-17260-S	GLP-0605-17389-S
Material Name	A3525	PN93B82	NK32Z3
Covance LIMS Number	71100254	71100265	71100252
Fatty Acids (%)			
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 9c,12c Linoleic	36.4	31.5	32.4
18:2 9c,12c Linoleic	36.8	32.3	33.6
20:0 Arachidic	0.178	0.138	0.140
20:0 Arachidic	0.186	0.148	0.150
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	< 0.0600
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	< 0.0600
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
20:1 Eicosenoic	0.0993	0.0642	0.0710
20:1 Eicosenoic	0.100	0.0741	0.0739
18:3 Linolenic	4.91	4.42	4.81
18:3 Linolenic	4.90	4.54	4.99
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	0.210	0.211	0.209
22:0 Behenic	0.219	0.221	0.210
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	0.116	0.106	0.109
24:0 Lignoceric	0.127	0.110	0.118
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600

Table 5 (Continued)
Compositional Analyses
of Soybean Crude Lecthin

Monsanto Sample ID	07PP8329-00025	07PP8329-00029	07PP8329-00033
Seed Lot Number	GLP-0605-17390-S	GLP-0605-17391-S	GLP-0605-17392-S
Material Name	Quality Plus 365C	Midwest 3444	H3395
Covance LIMS Number	71100257	71100264	71100263
Phosphatides (%)			
L-alpha-Phosphatidic Acid	5.10	4.19	3.54
L-alpha-Phosphatidic Acid	5.02	4.38	3.55
L-alpha-Phosphatidylethanolamine	4.97	5.36	4.71
L-alpha-Phosphatidylethanolamine	4.95	5.61	4.74
L-alpha-Phosphatidylcholine	5.67	6.81	5.91
L-alpha-Phosphatidylcholine	5.65	7.13	5.96
L-alpha-Phosphatidylinositol	4.26	4.65	3.95
L-alpha-Phosphatidylinositol	4.24	4.88	3.91
Fatty Acids (%)			
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
16:0 Palmitic	7.50	7.73	7.33
16:0 Palmitic	7.67	7.45	7.16
16:1 Palmitoleic	0.0619	< 0.0600	< 0.0600
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
17:0 Heptadecanoic	0.0667	0.0615	< 0.0600
17:0 Heptadecanoic	0.0725	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
18:0 Stearic	2.41	2.59	2.27
18:0 Stearic	2.48	2.46	2.21
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1 Total 18:1 Cis	9.94	9.90	9.33
18:1 Total 18:1 Cis	10.2	9.56	9.18

Table 5 (Continued)
Compositional Analyses
of Soybean Crude Lecthin

Monsanto Sample ID	07PP8329-00025	07PP8329-00029	07PP8329-00033
Seed Lot Number	GLP-0605-17390-S	GLP-0605-17391-S	GLP-0605-17392-S
Material Name	Quality Plus 365C	Midwest 3444	H3395
Covance LIMS Number	71100257	71100264	71100263
Fatty Acids (%)			
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 9c,12c Linoleic	33.1	32.8	33.1
18:2 9c,12c Linoleic	35.1	33.7	35.8
20:0 Arachidic	0.157	0.170	0.150
20:0 Arachidic	0.176	0.167	0.159
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	< 0.0600
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	< 0.0600
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
20:1 Eicosenoic	0.0741	0.0765	0.0892
20:1 Eicosenoic	0.0785	0.0778	0.0952
18:3 Linolenic	5.01	4.87	4.20
18:3 Linolenic	5.28	5.06	4.57
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	0.230	0.242	0.229
22:0 Behenic	0.251	0.238	0.240
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	0.111	0.120	0.118
24:0 Lignoceric	0.119	0.116	0.126
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600

Table 5 (Continued)
Compositional Analyses
of Soybean Crude Lecthin

Monsanto Sample ID	07PP8329-00037	07PP8329-00041	07PP8329-00045
Seed Lot Number	GLP-0605-17393-S	GLP-0605-17394-S	GLP-0605-17395-S
Material Name	H3802	P93B87	93B15
Covance LIMS Number	71100258	71100261	71100259
Phosphatides (%)			
L-alpha-Phosphatidic Acid	4.63	3.48	4.25
L-alpha-Phosphatidic Acid	4.80	3.31	4.08
L-alpha-Phosphatidylethanolamine	5.58	6.12	4.98
L-alpha-Phosphatidylethanolamine	5.77	5.82	4.67
L-alpha-Phosphatidylcholine	7.28	8.76	6.84
L-alpha-Phosphatidylcholine	7.69	8.32	6.45
L-alpha-Phosphatidylinositol	4.89	5.12	4.52
L-alpha-Phosphatidylinositol	5.13	4.87	4.33
Fatty Acids (%)			
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
16:0 Palmitic	8.17	6.96	7.79
16:0 Palmitic	7.57	6.94	7.45
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
17:0 Heptadecanoic	< 0.0600	< 0.0600	0.0657
17:0 Heptadecanoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
18:0 Stearic	2.51	2.05	2.51
18:0 Stearic	2.32	2.04	2.41
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1 Total 18:1 Cis	9.07	9.79	11.3
18:1 Total 18:1 Cis	8.43	9.66	10.9

Table 5 (Continued)
Compositional Analyses
of Soybean Crude Lecthin

Monsanto Sample ID	07PP8329-00037	07PP8329-00041	07PP8329-00045
Seed Lot Number	GLP-0605-17393-S	GLP-0605-17394-S	GLP-0605-17395-S
Material Name	H3802	P93B87	93B15
Covance LIMS Number	71100258	71100261	71100259
Fatty Acids (%)			
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 9c,12c Linoleic	34.6	32.1	35.4
18:2 9c,12c Linoleic	31.5	29.9	35.1
20:0 Arachidic	0.164	0.145	0.181
20:0 Arachidic	0.139	0.131	0.188
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 Gamma Linolenic	< 0.0600	< 0.0600	< 0.0600
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	< 0.0600
18:3 9c,12c,15t (Trans ALA)	< 0.0600	< 0.0600	< 0.0600
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
20:1 Eicosenoic	0.0791	0.0939	0.107
20:1 Eicosenoic	0.0694	0.0842	0.112
18:3 Linolenic	4.31	3.68	4.11
18:3 Linolenic	3.94	3.42	4.09
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
18:4 Stearidonic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	0.238	0.215	0.224
22:0 Behenic	0.207	0.198	0.218
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	0.127	0.125	0.171
24:0 Lignoceric	0.115	0.115	0.167
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600

Table 5 (Continued)
Compositional Analyses
of Soybean Crude Lecthin

Monsanto Sample ID	07PP8329-00049	07PP8329-00053	07PP8329-00057
Seed Lot Number	GLP-0604-17267-S	GLP-0604-17267-S	GLP-0604-17267-S
Material Name	MON 87769	MON 87769	MON 87769
Covance LIMS Number	71100256	71100262	71100267
Phosphatides (%)			
L-alpha-Phosphatidic Acid	3.72	4.62	4.12
L-alpha-Phosphatidic Acid	4.00	4.46	3.93
L-alpha-Phosphatidylethanolamine	5.33	5.38	6.32
L-alpha-Phosphatidylethanolamine	5.68	5.47	5.96
L-alpha-Phosphatidylcholine	6.21	6.87	8.38
L-alpha-Phosphatidylcholine	6.53	6.91	7.94
L-alpha-Phosphatidylinositol	4.65	5.46	5.32
L-alpha-Phosphatidylinositol	4.94	5.47	5.10
Fatty Acids (%)			
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
08:0 Caprylic	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
10:0 Capric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
12:0 Lauric	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:0 Myristic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
14:1 Myristoleic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:0 Pentadecanoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
15:1 Pentadecenoic	< 0.0600	< 0.0600	< 0.0600
16:0 Palmitic	8.60	8.13	7.66
16:0 Palmitic	7.53	8.12	7.74
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
16:1 Palmitoleic	< 0.0600	< 0.0600	< 0.0600
17:0 Heptadecanoic	0.0740	0.0674	< 0.0600
17:0 Heptadecanoic	0.0670	0.0672	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
17:1 Heptadecenoic	< 0.0600	< 0.0600	< 0.0600
18:0 Stearic	2.40	2.30	2.03
18:0 Stearic	2.06	2.29	2.02
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1T Total 18:1 Trans	< 0.0600	< 0.0600	< 0.0600
18:1 Total 18:1 Cis	7.09	6.43	6.83
18:1 Total 18:1 Cis	6.14	6.46	6.85

Table 5 (Continued)
Compositional Analyses
of Soybean Crude Lecthin

Monsanto Sample ID	07PP8329-00049	07PP8329-00053	07PP8329-00057
Seed Lot Number	GLP-0604-17267-S	GLP-0604-17267-S	GLP-0604-17267-S
Material Name	MON 87769	MON 87769	MON 87769
Covance LIMS Number	71100256	71100262	71100267
Fatty Acids (%)			
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2T Total 18:2 Trans	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600	< 0.0600	< 0.0600
18:2 9c,12c Linoleic	12.3	11.7	16.5
18:2 9c,12c Linoleic	10.8	11.6	17.3
20:0 Arachidic	0.168	0.166	0.141
20:0 Arachidic	0.143	0.165	0.144
18:3 Gamma Linolenic	3.59	3.39	2.59
18:3 Gamma Linolenic	3.17	3.37	2.74
18:3 9c,12c,15t (Trans ALA)	0.347	0.337	0.225
18:3 9c,12c,15t (Trans ALA)	0.309	0.334	0.235
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
18:3 Other 18:3 Trans	< 0.0600	< 0.0600	< 0.0600
20:1 Eicosenoic	0.0719	0.0671	0.0760
20:1 Eicosenoic	0.0667	0.0673	0.0723
18:3 Linolenic	8.53	8.24	5.92
18:3 Linolenic	7.60	8.14	6.29
18:4 6c,9c,12c,15t (Trans SDA)	0.0657	0.0763	< 0.0600
18:4 6c,9c,12c,15t (Trans SDA)	0.0722	0.0722	< 0.0600
18:4 Stearidonic	12.3	11.7	6.19
18:4 Stearidonic	10.9	11.6	6.62
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
20:2 Eicosadienoic	< 0.0600	< 0.0600	< 0.0600
22:0 Behenic	0.202	0.194	0.170
22:0 Behenic	0.166	0.185	0.168
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
22:1 Erucic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:3 Eicosatrienoic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:4 Arachidonic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
20:5 Eicosapentaenoic	< 0.0600	< 0.0600	< 0.0600
24:0 Lignoceric	0.0974	0.0855	0.0853
24:0 Lignoceric	0.0757	0.0925	0.0893
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:5 Docosapentaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600
22:6 Docosahexaenoic	< 0.0600	< 0.0600	< 0.0600

Table 5 (Continued)
Compositional Analyses
of Soybean Crude Lecthin

Monsanto Sample ID	07PP8329-00061
Seed Lot Number	GLP-0604-17267-S
Material Name	MON 87769
Covance LIMS Number	71100260
Phosphatides (%)	
L-alpha-Phosphatidic Acid	3.12
L-alpha-Phosphatidic Acid	3.19
L-alpha-Phosphatidylethanolamine	5.56
L-alpha-Phosphatidylethanolamine	5.60
L-alpha-Phosphatidylcholine	7.20
L-alpha-Phosphatidylcholine	7.24
L-alpha-Phosphatidylinositol	4.39
L-alpha-Phosphatidylinositol	4.49
Fatty Acids (%)	
08:0 Caprylic	< 0.0600
08:0 Caprylic	< 0.0600
10:0 Capric	< 0.0600
10:0 Capric	< 0.0600
12:0 Lauric	< 0.0600
12:0 Lauric	< 0.0600
14:0 Myristic	< 0.0600
14:0 Myristic	< 0.0600
14:1 Myristoleic	< 0.0600
14:1 Myristoleic	< 0.0600
15:0 Pentadecanoic	< 0.0600
15:0 Pentadecanoic	< 0.0600
15:1 Pentadecenoic	< 0.0600
15:1 Pentadecenoic	< 0.0600
16:0 Palmitic	7.15
16:0 Palmitic	7.61
16:1 Palmitoleic	< 0.0600
16:1 Palmitoleic	< 0.0600
17:0 Heptadecanoic	< 0.0600
17:0 Heptadecanoic	< 0.0600
17:1 Heptadecenoic	< 0.0600
17:1 Heptadecenoic	< 0.0600
18:0 Stearic	1.89
18:0 Stearic	2.02
18:1T Total 18:1 Trans	< 0.0600
18:1T Total 18:1 Trans	< 0.0600
18:1 Total 18:1 Cis	6.51
18:1 Total 18:1 Cis	6.98

Table 5 (Continued)
Compositional Analyses
of Soybean Crude Lecthin

Monsanto Sample ID	07PP8329-00061
Seed Lot Number	GLP-0604-17267-S
Material Name	MON 87769
Covance LIMS Number	71100260
Fatty Acids (%)	
18:2T Total 18:2 Trans	< 0.0600
18:2T Total 18:2 Trans	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600
18:2 6c,9c (Isolinoleic Acid)	< 0.0600
18:2 9c,12c Linoleic	15.7
18:2 9c,12c Linoleic	16.9
20:0 Arachidic	0.126
20:0 Arachidic	0.137
18:3 Gamma Linolenic	2.44
18:3 Gamma Linolenic	2.66
18:3 9c,12c,15t (Trans ALA)	0.207
18:3 9c,12c,15t (Trans ALA)	0.229
18:3 Other 18:3 Trans	< 0.0600
18:3 Other 18:3 Trans	< 0.0600
20:1 Eicosenoic	0.0679
20:1 Eicosenoic	0.0689
18:3 Linolenic	5.60
18:3 Linolenic	6.08
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600
18:4 6c,9c,12c,15t (Trans SDA)	< 0.0600
18:4 Stearidonic	5.67
18:4 Stearidonic	6.23
20:2 Eicosadienoic	< 0.0600
20:2 Eicosadienoic	< 0.0600
22:0 Behenic	0.150
22:0 Behenic	0.163
22:1 Erucic	< 0.0600
22:1 Erucic	< 0.0600
20:3 Eicosatrienoic	< 0.0600
20:3 Eicosatrienoic	< 0.0600
20:4 Arachidonic	< 0.0600
20:4 Arachidonic	< 0.0600
20:5 Eicosapentaenoic	< 0.0600
20:5 Eicosapentaenoic	< 0.0600
24:0 Lignoceric	0.0786
24:0 Lignoceric	0.0850
22:5 Docosapentaenoic	< 0.0600
22:5 Docosapentaenoic	< 0.0600
22:6 Docosahexaenoic	< 0.0600
22:6 Docosahexaenoic	< 0.0600

APPENDIX A

Analytical Method Summaries and Reference Standards

Acid Detergent Fiber (ADF)

The sample was placed in a fritted vessel and washed with an acidic boiling detergent solution that dissolved the protein, carbohydrate, and ash. An acetone wash removed the fats and pigments. Lignocellulose fraction was collected on the frit and determined gravimetrically. The limit of quantitation for this study was 0.100%.

Reference:

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

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 limit of quantitation for each amino acid in this study was 0.100 mg/g.

Reference Standards:

Thermo Scientific/Pierce, K18, 2.5 µmol/mL per constituent (except cystine 1.25 µmol/mL), Lot Number IJ115731

Sigma, L-Tryptophan, 100%, Lot Number 076K0075

Fluka, L-Cysteic Acid Monohydrate, >99.9% (used as 100%), Lot Number 1157629

Sigma, L-Methionine Sulfone, >99% (used as 100%), Lot Number 012H3349

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 to drive off all volatile organic matter. The nonvolatile matter remaining was quantitated gravimetrically and calculated to determine percent ash. 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:

$$\% \text{ carbohydrates} = 100 \% - (\% \text{ protein} + \% \text{ fat} + \% \text{ moisture} + \% \text{ ash})$$

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 limit of quantitation for this study was 0.100%.

Reference:

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

Fatty Acid Profile (FALT)

The lipid was extracted, saponified with 0.5N methanolic sodium hydroxide, and methylated with 14% BF₃-methanol. The resulting methyl esters of the fatty acids were extracted with heptane. An internal standard was added prior to the lipid extraction. The methyl esters of the fatty acids were analyzed by gas chromatography using external standards for quantitation. The limit of quantitation was 0.00500%-0.0600% depending on the soy fraction.

Reference Standards:

Nu Chek Prep GLC Reference Standard Hazelton No. 1, Lot Number JY19-R

Nu Chek Prep GLC Reference Standard Hazelton No. 2, Lot Number M13-O

Nu Chek Prep GLC Reference Standard Hazelton No. 3, Lot Number MA18-S

Nu Chek Prep GLC Reference Standard Hazelton No. 4, Lot Number JY19-R

Nu Chek Prep Methyl Gamma Linolenate, used as 100%

Lot Number U-63M-JY12-R

Nu Chek Prep Methyl Tridecanoate, used as 100%, Lot Number N-13M-F5-S

Nu Chek Prep Methyl Butyrate, used as 100%, Lot Number N-4M-J20-R

Nu Chek Prep Methyl Hexanoate, used as 100%, Lot Number N-6M-A25-R

Nu Chek Prep Methyl Erucate, used as 100%, Lot Number U-79M-AU3-Q

Nu Chek Prep Methyl Lignocerate, used as 100%, Lot Number N-24M-F5-S

Nu Chek Prep Methyl Docosapentaenoate, used as 100%, Lot Number U-101M-F18-S

Nu Chek Prep Methyl Docosaheptaenoate, used as 100%,

Lot Number U-84M-AU28-R

Nu Chek Prep Methyl Eicosapentaenoate, used as 100%, Lot Number U-99M-JY17-R
Cayman Chemicals Stearidonic Acid Methyl Ester, used as 100%,
Lot Number 182102-186015
Nu Chek Prep Methyl Elaidate, used as 100%, Lot Number U-47M-JA18-R
Nu Chek Prep Methyl Linoelaidate, used as 100%, Lot Number U-60M-F27-R
Nu Chek Prep Methyl Palmitelaidate, used as as 100%, Lot Number U-41M-O26-R
Monsanto Mono Trans SDA, 99%, Lot Number GLP-0707-18858-A
Monsanto Mono Trans ALA, 96%, Lot Number GLP-0707-18857-A
Larodan Methyl 6(z), 9(z)-Octadecadienoate, used as 100%, Lot Number LS-113

Reference:

Official Methods and Recommended Practices of the AOCS, 5th Ed., Method Ce 1-62,
American Oil Chemists' Society: Champaign, Illinois, (1997).

Isoflavones Analysis (ISOF)

The sample was extracted using a solution of hydrochloric acid and reagent alcohol heated on steam baths or hot plates. The extract was brought to volume, diluted, and centrifuged. An aliquot of the supernatant was placed onto a C18 solid-phase extraction column. Unwanted components of the matrix were rinsed off with 20% methanol and then the isoflavones were eluted with 80% methanol. The sample was analyzed on a high-performance liquid chromatography system with ultraviolet spectrophotometric quantitation and was compared against an external standard curve of known standards. The limit of quantitation for each component was 10.0 µg/g.

Reference Standards:

Indofine, Daidzein, 99% , Lot Number 020508146
Indofine, Genistein, ≥99% (used as 100% in calculations), Lot Number 0604043
Indofine, Glycitein, 99%, Lot Number 0704034

References:

Seo, A. and Morr, C. V., "Improved High-Performance Liquid Chromatographic Analysis of Phenolic Acids and Isoflavonoids from Soybean Protein Products," *Journal of Agricultural and Food Chemistry*, 32(3): 530-533, (1984).

Pettersson, H., and Kiessling, K.-H., "Liquid Chromatographic Determination of the Plant Estrogens Coumestrol and Isoflavones in Animal Feed," *Association of Official Analytical Chemists Journal*, 67(3): 503-506, (1984).

Lectin (LECT)

The sample was suspended in phosphate buffered saline (PBS), shaken, and filtered. An aliquot of the resulting extract was serially diluted in 10 cuvettes containing PBS. A 10% hematocrit of lyophilized rabbit blood in PBS was added to each dilution. After 2.5 hours, the absorbance of each dilution of the sample and lectin control was read by a spectrophotometer at 620 nm, using PBS to zero the instrument. One hemagglutinating unit (H.U.) was defined as the level that caused 50% of the standard cell suspension to sediment in 2.5 hours. The limit of quantitation for this study was 0.10 H.U./mg.

Klurfeld, D. M. and Kritchevsky, D., "Isolation and Quantitation of Lectins from Vegetable Oils," *Lipids*, 22:667-668, (1987).

Klurfeld, D. M., Personal communication. Liener, I. E., "The Photometric Determination of the Hemagglutinating Activity of Soyin and Crude Soybean Extracts," *Archives of Biochemistry and Biophysics*, 54:223-231, (1955).

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 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 (NDFE)

The sample was placed in a fritted vessel and washed with a neutral boiling detergent solution that dissolved the protein, carbohydrate, enzyme, and ash. An acetone wash removed the fats and pigments. Hemicellulose, cellulose, and lignin fractions were collected on the frit and determined gravimetrically. 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 Fiber Analyses, Agriculture Handbook No. 379, United States Department of Agriculture, (1970).

Phytic Acid (PHYT)

The sample was extracted using 0.5M HCl with ultrasonication. Purification and concentration was done on a silica based anion exchange (SAX) column. Sample analysis was done on a polymer HPLC column PRP-1, 5µm (150 x 4.1mm) and a refractive index detector. The limit of quantitation for this study was 0.100%.

Reference Standard:

Aldrich, Phytic Acid Dodecasodium Salt Hydrate, 97%, Lot Number 035K0590
Sigma-Aldrich, Phytic Acid Dodecasodium Salt Hydrate from Rice, 95%,
Lot Number 077K0693

References:

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

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

Protein (PGEN)

Nitrogenous compounds in the sample were reduced in the presence of boiling sulfuric acid and a mercury catalyst mixture to form ammonia. The acid digest was made alkaline. The ammonia was distilled and then titrated with a standard acid. The percent nitrogen was calculated and converted to protein using the factor 6.25. 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).

Bradstreet, R. B., *The Kjeldahl Method for Organic Nitrogen*, Academic Press: New York, New York, (1965).

Kalhoff, I. M., and Sandell, E. B., *Quantitative Inorganic Analysis*, MacMillan: New York, (1948).

Phosphatides (LPLC)

The sample was extracted with a 98% CHCl₃ 2% MeOH solvent. The extract is then analyzed on an HPLC system equipped with an evaporative light-scattering detector (ELSD). A calibration curve is used for quantification. The Limits of Quantitation for these assays were as follows: L-alpha-Phosphatidic Acid 0.70%, L-alpha-Phosphatidylcholine 1.90%, L-alpha-Phosphatidylethanolamine 2.00%, and L-alpha-Phosphatidylinositol 1.20%.

Reference Standard:

(PA) – Avanti Polar Lipids, L-alpha-Phosphatidic Acid (sodium salt), 100%,
Lot Number SPA-19

(PC) – Avanti Polar Lipids, L-alpha-Phosphatidylcholine, 100%,
Lot Number PPC-116

(PE) – Avanti Polar Lipids, L-alpha-Phosphatidylethanolamine, 100%,

Lot Number PPE-132b
(PI) – Avanti Polar Lipids, L-alpha-Phosphatidylinositol, 100%,
Lot Number PPI-149

Reference:
International Lecithin and Phospholipid Society, Analytical Method AM-101 HPLC,
Determination of Lecithins, 1997

Raffinose and Stachyose (SUGT)

The sample was extracted with deionized water and the extract treated with a hydroxylamine hydrochloride solution in pyridine, containing phenyl- β -D-glucoside as an internal standard. The resulting oximes were converted to silyl derivatives by treatment with hexamethyldisilazane and trifluoroacetic acid and analyzed by gas chromatography using a flame ionization detector. The limit of quantitation for this study was 0.0500%.

Reference Standards:
Sigma, Raffinose Pentahydrate, 99% / 84.0% after correction for degree of hydration,
Lot Number 035K1371
Sigma, Stachyose, 98% / 96.4% after correction for degree of hydration,
Lot Number 065K3775

References:
Mason, B. S., and Slover, H. T., "A Gas Chromatographic Method for the Determination of Sugars in Foods," *Journal of Agricultural and Food Chemistry*, 19(3):551-554, (1971).

Brobst, K. M., "Gas-Liquid Chromatography of Trimethylsilyl Derivatives," *Methods in Carbohydrate Chemistry*, Volume 6, Academic Press: New York, New York, (1972).

Trypsin Inhibitor (TRIP)

The sample was ground and defatted with petroleum ether. A sample of matrix was extracted for 3 hours with 0.01N sodium hydroxide. Varying aliquots of the sample suspension were exposed to a known amount of trypsin and benzoyl-DL-arginine-p-nitroanalide hydrochloride. The sample was allowed to react for 10 minutes at 37°C. After 10 minutes, the reaction was halted by the addition of acetic acid. The solution was centrifuged, then the absorbance was determined at 410 nm. Trypsin inhibitor activity (TIU) was determined by photometrically measuring the inhibition of trypsin's reaction with benzoyl-DL-arginine-p-nitroanalide hydrochloride. The limit of quantitation for this study was 1.00 Trypsin Inhibitor Unit/mg.

Reference:

Official Methods and Recommended Practices of the American Oil Chemists' Society, 5th Ed., Method Ba 12-75, American Oil Chemists' Society: Champaign, Illinois, (1997).

Vitamin E (LCAT)

The sample was saponified to break down any fat and release any vitamin E. The saponified mixture was extracted with ethyl ether and then quantitated directly by high-performance liquid chromatography on a silica column. The limit of quantitation for this study was 0.500 mg/100g.

Reference Standard:

USP, Alpha Tocopherol, 100%, Lot Number M

References:

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 Food Chemistry*, 31:1330-1333, (1983).

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).

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

Appendix 2. Certus Statistical Sub-report

The following 41 pages are the analytical sub-report
Pages 140-180

STATISTICAL REPORT

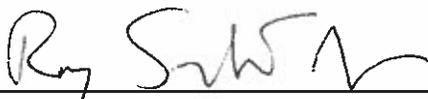
Compositional Analyses of Soybean Seed, Soybean Meal, Soybean Oil, Soybean Protein Isolate, and Soybean Lecithin Derived from Stearidonic Acid-Containing Soybeans, MON 87769, Grown in the United States during 2006

STUDY NUMBER: REG-07-192

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1. Data Description

A SAS[®] dataset (data722.sas7bdat, created 3/28/2008) containing compositional analysis data for soybean seed and processed fractions was received from Monsanto. Data were from test substance MON 87769, conventional control substance A3525, and eight commercial conventional reference substances.

Soybean seed samples of the test, control, and reference substances were collected from randomly assigned plots at two U.S. sites during 2006. Test and control substances were planted on two plots within each site in a completely randomized design. Reference substances were distributed as follows across sites:

Site IL-1	Site IL-2
PN93B82, NK32Z3, Quality Plus 365C, Midwest 3444	H3395, H3802, P93B87, 93B15

Reference varieties were grown and processed at the same time as the test and control substances. Compositional analyses were performed on each processed sample in duplicate.

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 quantitation limit were assigned a value equal to half the quantitation limit. The following components were assigned values:

Component	Units	Material	Obs. Below LOQ		Total N	LOQ	Value Assigned
			N	(%)			
Meal Fatty Acid (% Total FA)							
16:0 Palmitic	% FW	MON 87769	2	6.3	32	0.060	0.030
18:1 Total 18:1 Cis	% FW	MON 87769	2	6.3	32	0.060	0.030
18:3 Linolenic	% FW	MON 87769	2	6.3	32	0.060	0.030
Meal Antinutrient							
Trypsin Inhibitor	TIU/mg FW	A3525, H3395, MON 87769, PN93B82	7	21.9	32	1.00	0.50
RBD Oil Fatty Acid (% Total FA)							
18:2 6c,9c (Isolinoleic Acid)	% FW	Midwest 3444, NK32Z3, PN93B82	5	15.6	32	0.060	0.030
18:3 Other 18:3 Trans	% FW	93B15, H3802, MON 87769, P93B87	7	21.9	32	0.060	0.030

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(Cont.)

Component	Units	Material	Obs. Below LOQ		Total N	LOQ	Value Assigned
			N	(%)			
Protein Isolate Fatty Acid (% Total FA)							
17:0 Heptadecanoic	% FW	A3525, H3395, H3802, MON 87769, NK32Z3, PN93B82	14	43.8	32	0.0050	0.0025
18:3 9c,12c,15t (Trans ALA)	% FW	93B15, A3525, H3802, Midwest 3444, NK32Z3, P93B87, PN93B82, Quality Plus 365C	14	43.8	32	0.0050	0.0025
Lecithin Fatty Acid (% Total FA)							
17:0 Heptadecanoic	% FW	93B15, A3525, H3395, H3802, MON 87769, Midwest 3444, P93B87	16	50.0	32	0.060	0.030
20:1 Eicosenoic	% FW	A3525	4	12.5	32	0.060	0.030

Individual samples assigned a value are presented in Listing 2.

For some of the fatty acid components excluded from analysis, all of the values below the LOQ were from the control and commercial reference materials while all of the test sample results were above the LOQ. These fatty acids were distributed relative to the assay's LOQ by processed fraction and material type as follows:

Fatty Acid	Material	(N) Below LOQ	(N) Total	(%) Below LOQ
Seed				
18:3 9c, 12c, 15t (Trans ALA)	MON 87769	0	8	0.0
	Other	24	24	100.0
18:3 Gamma Linolenic	MON 87769	0	8	0.0
	Other	24	24	100.0
18:4 Stearidonic	MON 87769	0	8	0.0
	Other	24	24	100.0
Meal				
18:4 Stearidonic	MON 87769	0	8	0.0
	Other	24	24	100.0

(Cont.)

Fatty Acid	Material	(N) Below LOQ	(N) Total	(%) Below LOQ
RBD Oil				
18:3 Gamma Linolenic	MON 87769	0	8	0.0
	Other	24	24	100.0
18:4 6c,9c,12c,15t (Trans SDA)	MON 87769	0	8	0.0
	Other	24	24	100.0
18:4 Stearidonic	MON 87769	0	8	0.0
	Other	24	24	100.0
Protein Isolate				
18:3 Gamma Linolenic	MON 87769	0	8	0.0
	Other	24	24	100.0
18:4 6c,9c,12c,15t (Trans SDA)	MON 87769	0	8	0.0
	Other	24	24	100.0
18:4 Stearidonic	MON 87769	0	8	0.0
	Other	24	24	100.0
Lecithin				
18:3 9c,12c,15t (Trans ALA)	MON 87769	0	8	0.0
	Other	24	24	100.0
18:3 Gamma Linolenic	MON 87769	0	8	0.0
	Other	24	24	100.0
18:4 Stearidonic	MON 87769	0	8	0.0
	Other	24	24	100.0

Because of their presence in quantities higher than the LOQ, MON 87769 data for the above four fatty acids were retained for inclusion in the calculation of total fatty acids for use in the fatty acid composition data re-expression formula.

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

Component	From (X)	To	Formula ¹
Proximates (excluding Moisture), Fiber, Phytic Acid, Raffinose, Stachyose	% FW	% DW	X/d
Isoflavones	µg/g FW	µg/g DW	X/d
Trypsin Inhibitor	TIU/mg FW	TIU/mg DW	X/d
Seed Vitamin E	mg/100g FW	mg/100g DW	X/d
Amino Acids (AA)	mg/g FW	% DW	X/(10*d)
Fatty Acids (FA)	% FW	% Total FA	(100)X _j /ΣX, 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

This study was designed to estimate the levels of compositional components in the test and control processed fractions for the purpose of evaluating compositional equivalence. All statistical analyses were performed on the average of compositional analysis duplicates re-expressed as appropriate.

The SAS (SAS, 2002-2003) GLM procedure was applied to all data (test, control and reference) to detect potential outliers in the dataset by screening studentized PRESS residuals. Substance and site effects were included in the model.

A PRESS residual (Belsley, D.A., et. al., 1980) 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 studentized PRESS residual range:

Site ID	Description	Analyte	Sample ID	Value	PRESS Std Residual
Meal Fatty Acid (% Total FA)					
IL-1	MON 87769	16:0 Palmitic	07PP8329-00050	9.5203	-6.4864
IL-1	MON 87769	16:0 Palmitic	07PP8329-00054	14.1962	6.4864
IL-1	MON 87769	18:2 9c,12c Linoleic	07PP8329-00050	30.3557	8.7037
IL-1	MON 87769	18:2 9c,12c Linoleic	07PP8329-00054	22.6635	-8.7037
IL-1	MON 87769	18:3 Linolenic	07PP8329-00050	9.5203	-6.0898
IL-1	MON 87769	18:3 Linolenic	07PP8329-00054	12.7147	6.0898
RBD Oil Fatty Acid (% Total FA)					
IL_2	H3802	16:0 Palmitic	07PP8329-00040	11.7270	7.0297

Of the meal fatty acids identified, the lower 16:0 Palmitic value, the lower 18:2 9c,12c Linoleic value and the higher 18:3 Linolenic value were extreme values and were considered outliers. Because fatty acids are presented as a percent of total fatty acids, all fatty acid results for the two affected samples were additionally removed. The identified RBD oil fatty acid was not removed because it was not an extreme value.

A second run of the outlier screening model on the modified data identified no further possible outliers.

All soybean compositional analysis components were statistically analyzed using a mixed model analysis of variance. Combined site analyses used the model:

$$Y_{ijk} = U + T_i + L_j + LT_{ij} + e_{ijk},$$

where Y_{ijk} = unique individual observation, U = overall mean, T_i = substance effect, L_j = random location effect, LT_{ij} = random location 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 tolerance interval estimate was based upon one observation 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.

Statistical results are summarized for MON 87769 vs. the control in Tables 1 through 5 for soybean seed, meal, RBD oil, protein isolate, and lecithin fractions, respectively. 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. The range of the observed reference values and 99% tolerance intervals are presented. In addition, literature/ historical ranges are included where available.

Of 129 comparisons for MON 87769 vs. the control, 31 were statistically significant ($p < 0.05$). Components with a statistically significant comparison are further summarized in Table 6.

4. References

SAS Software Release 9.1 (TS1M3). Copyright (c) 2002-2003 by SAS Institute Inc., Cary, NC, USA.

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Szuhaj, B.F. 2005. Lecithins. Pages 361-441 in *Bailey's Industrial Oil and Fat Products*. Sixth Edition. Shahidi, F. (ed). John Wiley & Sons, Inc, New York, NY

TABLE 1. Statistical Summary of Combined Site Soybean Seed Fraction Amino Acid, Fatty Acid, Fiber, Proximate, Vitamin E, Antinutrient, Isoflavone and Sugar Content for Test (MON 87769) vs. the Conventional Control (A3525)

Analytical Component (Units) ¹	MON 87769 Mean (S.E.) [Range]	A3525 Mean (S.E.) [Range]	Difference (Test minus Control)			Commercial (Range) [99% Tolerance Interval ²]	Literature /Historical Range ³
			Mean (S.E.)	95% CI (Lower, Upper)	p-Value		
Amino Acid (% DW)							
Alanine (% DW)	1.77 (0.024) [1.72 - 1.80]	1.72 (0.024) [1.69 - 1.74]	0.044 (0.011)	0.017, 0.071	0.008	(1.64 - 1.75) [1.53, 1.87]	1.51 - 1.85 ^a
Arginine (% DW)	3.40 (0.18) [3.13 - 3.72]	3.18 (0.18) [3.02 - 3.34]	0.22 (0.066)	0.051, 0.39	0.020	(2.80 - 3.32) [2.32, 3.84]	2.29 - 3.36 ^a
Aspartic Acid (% DW)	4.76 (0.096) [4.59 - 4.90]	4.58 (0.096) [4.48 - 4.67]	0.18 (0.052)	-0.48, 0.84	0.178	(4.29 - 4.68) [3.91, 5.15]	3.81 - 5.12 ^a
Cystine (% DW)	0.61 (0.0075) [0.60 - 0.63]	0.61 (0.0075) [0.61 - 0.63]	-0.0032 (0.0078)	-0.023, 0.017	0.699	(0.54 - 0.64) [0.44, 0.75]	0.37 - 0.81 ^a
Glutamic Acid (% DW)	7.62 (0.20) [7.28 - 7.88]	7.30 (0.20) [7.08 - 7.49]	0.32 (0.10)	-1.00, 1.64	0.201	(6.73 - 7.60) [5.93, 8.56]	5.84 - 8.09 ^a
Glycine (% DW)	1.81 (0.019) [1.77 - 1.84]	1.75 (0.019) [1.72 - 1.76]	0.066 (0.014)	-0.12, 0.25	0.136	(1.68 - 1.78) [1.54, 1.92]	1.46 - 1.87 ^a
Histidine (% DW)	1.10 (0.018) [1.07 - 1.14]	1.06 (0.018) [1.05 - 1.08]	0.040 (0.014)	-0.14, 0.22	0.213	(1.02 - 1.10) [0.94, 1.18]	0.88 - 1.18 ^a
Isoleucine (% DW)	1.95 (0.019) [1.90 - 1.99]	1.87 (0.019) [1.84 - 1.91]	0.078 (0.026)	-0.26, 0.41	0.207	(1.79 - 1.87) [1.70, 1.98]	1.56 - 2.04 ^a

TABLE 1. Statistical Summary of Combined Site Soybean Seed Fraction Amino Acid, Fatty Acid, Fiber, Proximate, Vitamin E, Antinutrient, Isoflavone and Sugar Content for Test (MON 87769) vs. the Conventional Control (A3525) (cont.)

Analytical Component (Units) ¹	MON 87769 Mean (S.E.) [Range]	A3525 Mean (S.E.) [Range]	Difference (Test minus Control)			Commercial (Range) [99% Tolerance Interval ²]	Literature /Historical Range ³
			Mean (S.E.)	95% CI (Lower, Upper)	p-Value		
Amino Acid (% DW)							
Leucine (% DW)	3.20 (0.059) [3.08 - 3.28]	3.09 (0.059) [3.02 - 3.14]	0.10 (0.031)	-0.29, 0.50	0.188	(2.94 - 3.17) [2.71, 3.44]	2.59 - 3.39 ^a
Lysine (% DW)	2.69 (0.047) [2.61 - 2.75]	2.61 (0.047) [2.57 - 2.65]	0.075 (0.031)	-0.32, 0.47	0.249	(2.44 - 2.66) [2.24, 2.92]	2.29 - 2.84 ^a
Methionine (% DW)	0.58 (0.012) [0.56 - 0.61]	0.59 (0.012) [0.57 - 0.60]	-0.010 (0.010)	-0.036, 0.016	0.360	(0.52 - 0.59) [0.43, 0.69]	0.43 - 0.68 ^a
Phenylalanine (% DW)	2.18 (0.037) [2.11 - 2.24]	2.10 (0.037) [2.06 - 2.13]	0.080 (0.023)	-0.21, 0.37	0.177	(2.01 - 2.15) [1.87, 2.32]	1.63 - 2.24 ^a
Proline (% DW)	2.03 (0.058) [1.97 - 2.15]	1.97 (0.058) [1.87 - 2.05]	0.067 (0.037)	-0.027, 0.16	0.126	(1.77 - 2.02) [1.53, 2.33]	1.69 - 2.28 ^a
Serine (% DW)	2.17 (0.055) [2.10 - 2.27]	2.12 (0.055) [2.07 - 2.21]	0.047 (0.026)	-0.021, 0.11	0.136	(1.98 - 2.26) [1.70, 2.58]	1.63 - 2.48 ^a
Threonine (% DW)	1.56 (0.029) [1.52 - 1.60]	1.52 (0.029) [1.48 - 1.55]	0.041 (0.011)	-0.098, 0.18	0.165	(1.43 - 1.56) [1.30, 1.70]	1.25 - 1.62 ^a
Tryptophan (% DW)	0.52 (0.0078) [0.51 - 0.53]	0.49 (0.0078) [0.48 - 0.51]	0.024 (0.0034)	0.015, 0.032	<0.001	(0.47 - 0.51) [0.42, 0.56]	0.36 - 0.50 ^a

TABLE 1. Statistical Summary of Combined Site Soybean Seed Fraction Amino Acid, Fatty Acid, Fiber, Proximate, Vitamin E, Antinutrient, Isoflavone and Sugar Content for Test (MON 87769) vs. the Conventional Control (A3525) (cont.)

Analytical Component (Units) ¹	MON 87769 Mean (S.E.) [Range]	A3525 Mean (S.E.) [Range]	Difference (Test minus Control)			Commercial (Range) [99% Tolerance Interval ²]	Literature /Historical Range ³
			Mean (S.E.)	95% CI (Lower, Upper)	p-Value		
Amino Acid (% DW)							
Tyrosine (% DW)	1.40 (0.034) [1.30 - 1.46]	1.37 (0.034) [1.27 - 1.42]	0.025 (0.048)	-0.092, 0.14	0.620	(1.26 - 1.44) [1.02, 1.68]	1.02 - 1.56 ^a
Valine (% DW)	2.07 (0.025) [2.00 - 2.12]	1.97 (0.025) [1.93 - 2.00]	0.096 (0.030)	-0.29, 0.48	0.194	(1.92 - 1.99) [1.82, 2.07]	1.63 - 2.20 ^a
Fatty Acid (% Total FA)							
16:0 Palmitic (% Total FA)	12.38 (0.055) [12.36 - 12.40]	11.68 (0.055) [11.58 - 11.85]	0.70 (0.078)	0.36, 1.03	0.012	(10.01 - 11.94) [7.70, 13.58]	NA
18:0 Stearic (% Total FA)	4.29 (0.029) [4.24 - 4.37]	4.16 (0.029) [4.11 - 4.21]	0.14 (0.032)	0.054, 0.22	0.008	(3.99 - 4.53) [3.15, 5.20]	NA
18:1 Total 18:1 Cis (% Total FA)	16.50 (0.93) [15.07 - 18.15]	19.67 (0.93) [19.17 - 20.38]	-3.17 (0.92)	-14.80, 8.46	0.178	(20.57 - 23.17) [17.29, 26.16]	NA
18:2 9c, 12c Linoleic (% Total FA)	26.00 (3.74) [20.66 - 31.36]	55.93 (3.74) [55.52 - 56.37]	-29.93 (4.90)	-92.24, 32.37	0.103	(54.79 - 57.04) [51.85, 59.59]	NA
18:3 Linolenic (% Total FA)	10.79 (0.61) [10.47 - 11.10]	8.56 (0.61) [7.59 - 9.41]	2.23 (0.50)	-4.16, 8.61	0.141	(6.80 - 8.88) [3.78, 11.70]	NA
Fiber							
Acid Detergent Fiber (% DW)	15.47 (0.84) [13.42 - 17.51]	16.64 (0.84) [15.15 - 18.20]	-1.17 (1.19)	-4.09, 1.75	0.364	(13.85 - 18.22) [8.54, 23.08]	7.81 - 18.61 ^a

TABLE 1. Statistical Summary of Combined Site Soybean Seed Fraction Amino Acid, Fatty Acid, Fiber, Proximate, Vitamin E, Antinutrient, Isoflavone and Sugar Content for Test (MON 87769) vs. the Conventional Control (A3525) (cont.)

Analytical Component (Units) ¹	MON 87769 Mean (S.E.) [Range]	A3525 Mean (S.E.) [Range]	Difference (Test minus Control)			Commercial (Range) [99% Tolerance Interval ²]	Literature /Historical Range ³
			Mean (S.E.)	95% CI (Lower, Upper)	p-Value		
Fiber							
Neutral Detergent Fiber (% DW)	14.53 (1.14) [13.44 - 15.96]	16.86 (1.14) [15.64 - 19.53]	-2.33 (0.70)	-4.12, -0.53	0.020	(14.46 - 18.28) [9.49, 22.92]	8.53 - 21.25 ^a
Proximate							
Ash (% DW)	5.18 (0.074) [4.97 - 5.31]	5.16 (0.074) [4.98 - 5.32]	0.021 (0.10)	-0.24, 0.28	0.846	(4.99 - 5.31) [4.59, 5.75]	3.885 - 6.542 ^a
Carbohydrates (% DW)	35.48 (0.31) [34.71 - 35.99]	36.88 (0.31) [35.93 - 37.56]	-1.40 (0.44)	-2.47, -0.32	0.019	(34.60 - 37.06) [31.88, 39.97]	29.6 - 50.2 ^a
Fat (% DW)	18.19 (1.28) [16.60 - 19.55]	17.53 (1.28) [15.97 - 19.07]	0.65 (0.25)	0.0063, 1.30	0.048	(17.42 - 21.25) [12.90, 25.93]	8.104 - 23.562 ^a
Moisture (% FW)	7.02 (0.27) [6.65 - 7.60]	7.20 (0.27) [6.83 - 7.96]	-0.19 (0.30)	-0.96, 0.58	0.559	(6.36 - 7.59) [4.72, 9.32]	5.1 - 14.9 ^a
Protein (% DW)	41.15 (1.21) [39.27 - 42.85]	40.43 (1.21) [38.80 - 42.15]	0.72 (0.50)	-0.58, 2.02	0.212	(37.52 - 41.39) [32.71, 46.27]	33.19 - 45.48 ^a
Vitamin							
Vitamin E (mg/100g DW)	1.73 (0.61) [1.01 - 2.51]	1.45 (0.61) [0.86 - 2.20]	0.28 (0.11)	-0.0026, 0.56	0.051	(0.71 - 3.79) [0, 7.39]	0.47 - 6.17 ^a
Antinutrient							
Lectin (H.U./mg FW)	2.32 (0.43) [1.28 - 3.23]	1.71 (0.43) [0.83 - 2.79]	0.60 (0.60)	-0.88, 2.08	0.357	(0.57 - 3.48) [0, 6.89]	0.09 - 8.46 ^a

TABLE 1. Statistical Summary of Combined Site Soybean Seed Fraction Amino Acid, Fatty Acid, Fiber, Proximate, Vitamin E, Antinutrient, Isoflavone and Sugar Content for Test (MON 87769) vs. the Conventional Control (A3525) (cont.)

Analytical Component (Units) ¹	MON 87769 Mean (S.E.) [Range]	A3525 Mean (S.E.) [Range]	Difference (Test minus Control)			Commercial (Range) [99% Tolerance Interval ²]	Literature /Historical Range ³
			Mean (S.E.)	95% CI (Lower, Upper)	p-Value		
Antinutrient							
Phytic Acid (% DW)	1.23 (0.044) [1.18 - 1.27]	1.11 (0.044) [1.02 - 1.27]	0.12 (0.059)	-0.030, 0.27	0.094	(0.96 - 1.34) [0.50, 1.75]	0.634 - 1.960 ^a
Raffinose (% DW)	0.39 (0.038) [0.35 - 0.44]	0.39 (0.038) [0.33 - 0.46]	0.0051 (0.016)	-0.035, 0.046	0.758	(0.32 - 0.44) [0.15, 0.61]	0.212 ^a - 1.43 ^b
Stachyose (% DW)	2.98 (0.078) [2.87 - 3.17]	2.98 (0.078) [2.79 - 3.14]	0.0015 (0.11)	-0.47, 0.48	0.990	(2.63 - 3.39) [1.72, 4.05]	1.21 - 3.50 ^a
Trypsin Inhibitor (TIU/mg DW)	30.00 (1.86) [25.50 - 33.93]	24.41 (1.86) [20.75 - 29.22]	5.59 (2.63)	-0.84, 12.02	0.077	(18.90 - 38.94) [0, 70.89]	19.59 - 118.68 ^a
Isoflavone							
Daidzein (µg/g DW)	1023.92 (68.83) [906.80 - 1155.04]	1490.99 (68.83) [1391.05 - 1604.39]	-467.07 (97.34)	-885.64, -48.50	0.040	(357.97 - 1135.69) [0, 2040.66]	60.0 - 2453.5 ^a
Genistein (µg/g DW)	621.84 (46.63) [545.80 - 694.10]	912.76 (46.63) [872.23 - 947.56]	-290.92 (65.95)	-574.61, -7.23	0.047	(532.10 - 910.17) [184.57, 1380.83]	144.3 - 2837.2 ^a
Glycitein (µg/g DW)	91.46 (8.40) [71.61 - 102.13]	112.82 (8.40) [87.13 - 134.22]	-21.36 (11.88)	-50.42, 7.69	0.122	(79.21 - 251.50) [0, 474.81]	15.3 - 310.4 ^a

¹DW = dry weight; FW = fresh weight; FA = fatty acid; S.E. = standard error; CI = Confidence Interval.

²With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits were set to zero.

³Literature/Historical range references: ^aILSI Soybean Database, 2004. ^bGrieshop, 2003.

TABLE 2. Statistical Summary of Combined Site Soybean Meal Fraction Amino Acid, Fatty Acid, Fiber, Proximate and Antinutrient Content for Test (MON 87769) vs. the Conventional Control (A3525)

Analytical Component (Units) ¹	MON 87769 Mean (S.E.) [Range]	A3525 Mean (S.E.) [Range]	Difference (Test minus Control)			Commercial (Range) [99% Tolerance Interval ²]	Literature /Historical Range ³
			Mean (S.E.)	95% CI (Lower, Upper)	p-Value		
Amino Acid (% DW)							
Alanine (% DW)	2.28 (0.025) [2.24 - 2.32]	2.28 (0.025) [2.24 - 2.31]	0.0053 (0.013)	-0.029, 0.039	0.703	(2.23 - 2.39) [2.05, 2.58]	2.18 - 2.59 ^a
Arginine (% DW)	4.34 (0.13) [4.18 - 4.51]	4.17 (0.13) [4.06 - 4.31]	0.16 (0.067)	-0.68, 1.01	0.245	(3.80 - 4.32) [3.36, 4.94]	3.29 - 4.49 ^a
Aspartic Acid (% DW)	6.10 (0.030) [6.05 - 6.13]	6.00 (0.030) [5.94 - 6.04]	0.10 (0.022)	0.044, 0.16	0.006	(5.80 - 6.30) [5.21, 6.97]	5.18 - 6.83 ^a
Cystine (% DW)	0.77 (0.0080) [0.77 - 0.78]	0.77 (0.0080) [0.75 - 0.79]	0.0036 (0.0084)	-0.10, 0.11	0.740	(0.71 - 0.80) [0.61, 0.93]	0.6 ^b - 0.92 ^a
Glutamic Acid (% DW)	9.79 (0.031) [9.78 - 9.81]	9.58 (0.031) [9.50 - 9.68]	0.22 (0.043)	0.11, 0.32	0.002	(9.15 - 10.05) [8.21, 11.33]	8.05 - 11.21 ^a
Glycine (% DW)	2.31 (0.023) [2.28 - 2.34]	2.28 (0.023) [2.23 - 2.32]	0.038 (0.015)	-0.0017, 0.077	0.057	(2.23 - 2.36) [2.06, 2.55]	2.02 - 2.40 ^a
Histidine (% DW)	1.42 (0.010) [1.41 - 1.43]	1.40 (0.010) [1.38 - 1.42]	0.021 (0.0059)	0.0054, 0.036	0.017	(1.39 - 1.46) [1.28, 1.57]	1.32 - 1.63 ^a
Isoleucine (% DW)	2.53 (0.050) [2.46 - 2.60]	2.51 (0.050) [2.38 - 2.59]	0.023 (0.046)	-0.096, 0.14	0.642	(2.47 - 2.68) [2.11, 2.98]	2.11 - 2.74 ^a

TABLE 2. Statistical Summary of Combined Site Soybean Meal Fraction Amino Acid, Fatty Acid, Fiber, Proximate and Antinutrient Content for Test (MON 87769) vs. the Conventional Control (A3525) (cont.)

Analytical Component (Units) ¹	MON 87769 Mean (S.E.) [Range]	A3525 Mean (S.E.) [Range]	Difference (Test minus Control)			Commercial (Range) [99% Tolerance Interval ²]	Literature /Historical Range ³
			Mean (S.E.)	95% CI (Lower, Upper)	p-Value		
Amino Acid (% DW)							
Leucine (% DW)	4.13 (0.037) [4.07 - 4.19]	4.08 (0.037) [4.01 - 4.15]	0.047 (0.030)	-0.030, 0.12	0.178	(4.04 - 4.29) [3.64, 4.68]	3.62 - 4.72 ^a
Lysine (% DW)	3.34 (0.026) [3.29 - 3.38]	3.31 (0.026) [3.26 - 3.36]	0.027 (0.022)	-0.030, 0.084	0.284	(3.20 - 3.49) [2.90, 3.82]	2.97 - 3.69 ^a
Methionine (% DW)	0.77 (0.0079) [0.75 - 0.78]	0.76 (0.0079) [0.75 - 0.78]	0.0038 (0.011)	-0.044, 0.052	0.767	(0.74 - 0.82) [0.62, 0.92]	0.5 - 0.9 ^b
Phenylalanine (% DW)	2.78 (0.023) [2.75 - 2.81]	2.74 (0.023) [2.69 - 2.78]	0.042 (0.020)	-0.0099, 0.094	0.091	(2.70 - 2.90) [2.44, 3.15]	2.39 - 3.19 ^a
Proline (% DW)	2.66 (0.033) [2.64 - 2.68]	2.62 (0.033) [2.50 - 2.71]	0.034 (0.047)	-0.17, 0.24	0.543	(2.50 - 2.75) [2.15, 3.14]	2.32 - 3.05 ^a
Serine (% DW)	2.75 (0.034) [2.71 - 2.80]	2.68 (0.034) [2.58 - 2.77]	0.070 (0.048)	-0.048, 0.19	0.197	(2.53 - 2.84) [2.23, 3.27]	1.97 ^a - 3.3 ^b
Threonine (% DW)	2.00 (0.016) [1.98 - 2.01]	1.97 (0.016) [1.91 - 2.01]	0.023 (0.022)	-0.035, 0.080	0.361	(1.93 - 2.06) [1.73, 2.28]	0.80 - 2.24 ^a
Tryptophan (% DW)	0.68 (0.020) [0.66 - 0.70]	0.67 (0.020) [0.65 - 0.69]	0.012 (0.0026)	0.0049, 0.019	0.006	(0.65 - 0.71) [0.57, 0.77]	0.60 ^c - 2.08 ^a

TABLE 2. Statistical Summary of Combined Site Soybean Meal Fraction Amino Acid, Fatty Acid, Fiber, Proximate and Antinutrient Content for Test (MON 87769) vs. the Conventional Control (A3525) (cont.)

Analytical Component (Units) ¹	MON 87769 Mean (S.E.) [Range]	A3525 Mean (S.E.) [Range]	Difference (Test minus Control)			Commercial (Range) [99% Tolerance Interval ²]	Literature /Historical Range ³
			Mean (S.E.)	95% CI (Lower, Upper)	p-Value		
Amino Acid (% DW)							
Tyrosine (% DW)	1.81 (0.016) [1.78 - 1.83]	1.78 (0.016) [1.73 - 1.82]	0.027 (0.022)	-0.027, 0.081	0.265	(1.65 - 1.93) [1.39, 2.25]	1.68 - 2.17 ^a
Valine (% DW)	2.67 (0.047) [2.59 - 2.74]	2.64 (0.047) [2.50 - 2.71]	0.031 (0.055)	-0.11, 0.17	0.596	(2.61 - 2.79) [2.37, 3.01]	2.29 - 2.92 ^a
Fatty Acid (% Total FA)							
16:0 Palmitic (% Total FA)	14.25 (0.12) [14.08 - 14.41]	12.83 (0.087) [12.61 - 12.95]	1.41 (0.15)	0.99, 1.83	<0.001	(10.99 - 12.82) [9.13, 14.71]	NA
18:1 Total 18:1 Cis (% Total FA)	16.85 (0.42) [17.17 - 17.25]	17.63 (0.39) [17.00 - 18.11]	-0.79 (0.20)	-1.42, -0.15	0.028	(17.91 - 21.93) [13.11, 25.57]	NA
18:2 9c,12c Linoleic (% Total FA)	34.14 (0.48) [34.57 - 34.66]	58.32 (0.47) [57.79 - 58.85]	-24.17 (0.080)	-24.43, -23.92	<0.001	(58.10 - 60.62) [54.41, 63.54]	NA
18:3 Linolenic (% Total FA)	13.14 (0.95) [12.19 - 12.20]	11.22 (0.94) [10.17 - 12.19]	1.92 (0.089)	1.64, 2.21	<0.001	(8.00 - 11.12) [3.82, 15.72]	NA
Fiber							
Acid Detergent Fiber (% DW)	5.18 (0.14) [4.93 - 5.46]	4.52 (0.14) [4.22 - 4.96]	0.66 (0.19)	0.18, 1.13	0.014	(4.00 - 5.66) [1.79, 7.28]	5.2 - 6.7 ^f
Neutral Detergent Fiber (% DW)	6.36 (0.13) [6.19 - 6.56]	5.58 (0.13) [5.36 - 5.82]	0.78 (0.19)	-0.017, 1.58	0.052	(4.41 - 6.10) [2.46, 8.06]	7.4 - 12.2 ^f

TABLE 2. Statistical Summary of Combined Site Soybean Meal Fraction Amino Acid, Fatty Acid, Fiber, Proximate and Antinutrient Content for Test (MON 87769) vs. the Conventional Control (A3525) (cont.)

Analytical Component (Units) ¹	MON 87769 Mean (S.E.) [Range]	A3525 Mean (S.E.) [Range]	Difference (Test minus Control)			Commercial (Range) [99% Tolerance Interval ²]	Literature /Historical Range ³
			Mean (S.E.)	95% CI (Lower, Upper)	p-Value		
Proximate							
Ash (% DW)	6.62 (0.27) [6.19 - 6.91]	6.46 (0.27) [5.96 - 6.83]	0.16 (0.14)	-0.20, 0.52	0.299	(6.37 - 7.07) [5.63, 7.91]	5.2 - 9.1 ^f
Carbohydrates (% DW)	38.00 (0.29) [37.49 - 38.38]	40.05 (0.29) [39.44 - 41.00]	-2.06 (0.39)	-3.05, -1.06	0.003	(36.26 - 41.61) [28.99, 48.21]	NA
Moisture (% FW)	2.63 (0.56) [1.68 - 3.69]	2.45 (0.56) [1.76 - 4.12]	0.18 (0.64)	-1.46, 1.81	0.794	(2.36 - 4.40) [0, 7.38]	5.58 - 11.7 ^d
Protein (% DW)	54.22 (0.50) [53.28 - 55.50]	52.64 (0.50) [52.11 - 53.19]	1.57 (0.70)	-7.28, 10.42	0.265	(50.03 - 55.23) [44.73, 62.02]	47.4 - 59.5 ^a
Total Fat (% DW)	1.17 (0.39) [0.50 - 2.00]	0.84 (0.39) [0.61 - 1.13]	0.32 (0.47)	-5.70, 6.35	0.619	(0.82 - 2.38) [0, 3.87]	0.5 ^e - 3.30 ^f
Antinutrient							
Phytic Acid (% DW)	1.33 (0.051) [1.19 - 1.52]	1.33 (0.051) [1.30 - 1.36]	0.0034 (0.072)	-0.17, 0.18	0.964	(1.22 - 1.51) [0.87, 1.88]	1.3 - 4.1 ^d
Trypsin Inhibitor (TIU/mg DW)	2.03 (1.23) [0.52 - 3.56]	4.82 (1.23) [2.31 - 9.10]	-2.78 (1.75)	-7.05, 1.49	0.162	(0.52 - 6.63) [0, 16.57]	3.8 - 17.9 ^d

¹DW = dry weight; FW = fresh weight; FA = fatty acid; S.E. = standard error; CI = Confidence Interval.

²With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits were set to zero.

³Literature/Historical range references: ^a Karr-Lilienthal et al., 2004, ^b Grieshop et al., 2003, ^c Soybean Meal Information Center, 2001.

^d Padgett et al., 1996. ^e Orthofer, 1978, ^f OECD, 2001.

TABLE 3. Statistical Summary of Combined Site Soybean RBD Oil Fraction Fatty Acid and Vitamin E Content for Test (MON 87769) vs. the Conventional Control (A3525)

Analytical Component (Units) ¹	MON 87769 Mean (S.E.) [Range]	A3525 Mean (S.E.) [Range]	Difference (Test minus Control)			Commercial (Range) [99% Tolerance Interval ²]	Literature /Historical Range ³
			Mean (S.E.)	95% CI (Lower, Upper)	p-Value		
Fatty Acid (% Total FA)							
14:0 Myristic (% Total FA)	0.083 (0.0039) [0.078 - 0.088]	0.082 (0.0039) [0.078 - 0.089]	0.00064 (0.0016)	-0.0036, 0.0049	0.713	(0.067 - 0.084) [0.042, 0.11]	NA
16:0 Palmitic (% Total FA)	12.10 (0.050) [11.98 - 12.23]	11.48 (0.050) [11.42 - 11.61]	0.61 (0.071)	0.44, 0.79	<0.001	(9.80 - 11.73) [7.68, 13.21]	NA
16:1 Palmitoleic (% Total FA)	0.085 (0.0015) [0.083 - 0.087]	0.091 (0.0015) [0.088 - 0.095]	-0.0065 (0.0021)	-0.016, 0.0027	0.093	(0.079 - 0.11) [0.044, 0.14]	NA
17:0 Heptadecanoic (% Total FA)	0.10 (0.0094) [0.090 - 0.11]	0.096 (0.0094) [0.088 - 0.11]	0.0053 (0.0031)	-0.035, 0.045	0.337	(0.080 - 0.10) [0.057, 0.12]	NA
18:0 Stearic (% Total FA)	4.18 (0.019) [4.13 - 4.20]	4.08 (0.019) [4.04 - 4.12]	0.098 (0.027)	0.033, 0.16	0.010	(3.91 - 4.45) [3.00, 5.17]	NA
18:1 Total 18:1 Cis (% Total FA)	16.02 (0.80) [14.49 - 17.34]	19.25 (0.80) [19.02 - 19.74]	-3.23 (0.89)	-14.51, 8.04	0.170	(19.57 - 23.22) [16.11, 26.19]	NA
18:2 6c,9c (Isolinoleic Acid) (% Total FA)	0.091 (0.0055) [0.089 - 0.094]	0.075 (0.0055) [0.063 - 0.085]	0.015 (0.0078)	-0.018, 0.049	0.184	(0.030 - 0.077) [0, 0.15]	NA
18:2 9c,12c Linoleic (% Total FA)	25.66 (3.53) [20.66 - 30.92]	55.38 (3.53) [54.82 - 55.87]	-29.72 (4.54)	-87.36, 27.92	0.096	(54.06 - 56.98) [50.27, 60.17]	NA

TABLE 3. Statistical Summary of Combined Site Soybean RBD Oil Fraction Fatty Acid and Vitamin E Content for Test (MON 87769) vs. the Conventional Control (A3525) (cont.)

Analytical Component (Units) ¹	MON 87769 Mean (S.E.) [Range]	A3525 Mean (S.E.) [Range]	Difference (Test minus Control)			Commercial (Range) [99% Tolerance Interval ²]	Literature /Historical Range ³
			Mean (S.E.)	95% CI (Lower, Upper)	p-Value		
Fatty Acid (% Total FA)							
18:3 9c,12c,15t (Trans ALA) (% Total FA)	0.51 (0.020) [0.47 - 0.54]	0.14 (0.020) [0.10 - 0.16]	0.37 (0.020)	0.11, 0.63	0.035	(0.072 - 0.15) [0, 0.24]	NA
18:3 Linolenic (% Total FA)	10.61 (0.55) [10.34 - 10.95]	8.31 (0.55) [7.42 - 9.07]	2.31 (0.47)	-3.71, 8.32	0.128	(6.44 - 8.61) [3.48, 11.79]	NA
18:3 Other 18:3 Trans (% Total FA)	0.064 (0.0091) [0.031 - 0.078]	0.084 (0.0091) [0.069 - 0.098]	-0.019 (0.013)	-0.075, 0.036	0.271	(0.031 - 0.083) [0, 0.16]	NA
20:0 Arachidic (% Total FA)	0.35 (0.0072) [0.34 - 0.35]	0.31 (0.0072) [0.30 - 0.33]	0.034 (0.0035)	-0.011, 0.079	0.065	(0.30 - 0.35) [0.23, 0.42]	NA
20:1 Eicosenoic (% Total FA)	0.18 (0.020) [0.16 - 0.20]	0.17 (0.020) [0.14 - 0.19]	0.014 (0.0016)	-0.0061, 0.033	0.072	(0.15 - 0.22) [0.043, 0.31]	NA
22:0 Behenic (% Total FA)	0.32 (0.019) [0.27 - 0.35]	0.33 (0.019) [0.29 - 0.36]	-0.0086 (0.022)	-0.065, 0.048	0.709	(0.32 - 0.40) [0.21, 0.51]	NA
24:0 Lignoceric (% Total FA)	0.093 (0.015) [0.076 - 0.11]	0.12 (0.015) [0.10 - 0.14]	-0.030 (0.0024)	-0.036, -0.023	<0.001	(0.088 - 0.18) [0, 0.26]	NA
Vitamin							
Vitamin E (mg/100g FW)	8.61 (1.98) [6.56 - 10.90]	7.14 (1.98) [5.14 - 9.27]	1.48 (0.16)	1.06, 1.90	<0.001	(3.56 - 15.35) [0, 29.82]	0.9 - 35.2 ^c

¹FW = fresh weight; FA = fatty acid; S.E. = standard error; CI = Confidence Interval.²With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits were set to zero.³Literature/Historical range references: ^aCodex, 2005

TABLE 4. Statistical Summary of Combined Site Soybean Protein Isolate Fraction Amino Acid, Fatty Acid and Moisture Content for Test (MON 87769) vs. the Conventional Control (A3525)

Analytical Component (Units) ¹	MON 87769 Mean (S.E.) [Range]	A3525 Mean (S.E.) [Range]	Difference (Test minus Control)			Commercial (Range) [99% Tolerance Interval ²]	Literature /Historical Range ³
			Mean (S.E.)	95% CI (Lower, Upper)	p-Value		
Amino Acid (% DW)							
Alanine (% DW)	3.70 (0.037) [3.63 - 3.81]	3.83 (0.037) [3.77 - 3.90]	-0.13 (0.052)	-0.36, 0.091	0.124	(3.56 - 3.82) [3.33, 4.12]	-
Arginine (% DW)	7.78 (0.11) [7.61 - 8.09]	7.85 (0.11) [7.61 - 8.01]	-0.072 (0.13)	-0.41, 0.27	0.607	(7.54 - 8.08) [6.76, 8.87]	6.67 ^a
Aspartic Acid (% DW)	10.98 (0.14) [10.70 - 11.34]	11.07 (0.14) [10.67 - 11.41]	-0.087 (0.20)	-0.59, 0.41	0.683	(10.72 - 11.48) [9.79, 12.23]	-
Cystine (% DW)	1.14 (0.010) [1.12 - 1.16]	1.12 (0.010) [1.09 - 1.15]	0.022 (0.014)	-0.013, 0.058	0.173	(1.09 - 1.18) [0.98, 1.27]	1.05 ^a
Glutamic Acid (% DW)	18.80 (0.28) [18.42 - 19.65]	18.83 (0.28) [18.12 - 19.34]	-0.024 (0.37)	-0.99, 0.94	0.951	(18.16 - 19.56) [16.29, 21.34]	-
Glycine (% DW)	3.93 (0.033) [3.88 - 3.97]	4.00 (0.033) [3.90 - 4.06]	-0.069 (0.046)	-0.18, 0.044	0.184	(3.71 - 4.01) [3.45, 4.38]	-
Histidine (% DW)	2.40 (0.021) [2.37 - 2.44]	2.45 (0.021) [2.39 - 2.51]	-0.048 (0.030)	-0.12, 0.025	0.158	(2.33 - 2.50) [2.15, 2.72]	2.3 ^a
Isoleucine (% DW)	4.43 (0.044) [4.33 - 4.50]	4.57 (0.044) [4.47 - 4.61]	-0.13 (0.062)	-0.40, 0.13	0.161	(4.39 - 4.68) [3.98, 4.96]	4.25 ^a

TABLE 4. Statistical Summary of Combined Site Soybean Protein Isolate Fraction Amino Acid, Fatty Acid and Moisture Content for Test (MON 87769) vs. the Conventional Control (A3525) (cont.)

Analytical Component (Units) ¹	MON 87769 Mean (S.E.) [Range]	A3525 Mean (S.E.) [Range]	Difference (Test minus Control)			Commercial (Range) [99% Tolerance Interval ²]	Literature /Historical Range ³
			Mean (S.E.)	95% CI (Lower, Upper)	p-Value		
Amino Acid (% DW)							
Leucine (% DW)	7.28 (0.053) [7.13 - 7.37]	7.47 (0.053) [7.38 - 7.59]	-0.19 (0.075)	-0.37, -0.0062	0.044	(7.08 - 7.61) [6.62, 8.11]	6.78 ^a
Lysine (% DW)	5.78 (0.040) [5.70 - 5.86]	5.91 (0.040) [5.80 - 5.98]	-0.13 (0.056)	-0.27, 0.0028	0.053	(5.68 - 5.95) [5.41, 6.21]	5.33 ^a
Methionine (% DW)	1.21 (0.011) [1.20 - 1.23]	1.22 (0.011) [1.19 - 1.25]	-0.014 (0.015)	-0.051, 0.022	0.368	(1.13 - 1.25) [1.02, 1.38]	1.13 ^a
Phenylalanine (% DW)	5.00 (0.046) [4.88 - 5.10]	5.10 (0.046) [5.02 - 5.19]	-0.096 (0.065)	-0.25, 0.063	0.189	(4.88 - 5.24) [4.54, 5.55]	4.59 ^a
Proline (% DW)	4.89 (0.13) [4.64 - 5.22]	4.90 (0.13) [4.57 - 5.08]	-0.014 (0.18)	-0.46, 0.43	0.939	(4.30 - 5.09) [3.46, 6.04]	-
Serine (% DW)	4.96 (0.058) [4.86 - 5.08]	5.01 (0.058) [4.82 - 5.11]	-0.048 (0.082)	-0.40, 0.30	0.614	(4.78 - 5.10) [4.49, 5.54]	-
Threonine (% DW)	3.25 (0.052) [3.10 - 3.35]	3.30 (0.052) [3.21 - 3.39]	-0.053 (0.074)	-0.23, 0.13	0.497	(2.96 - 3.31) [2.67, 3.78]	3.14 ^a
Tryptophan (% DW)	1.09 (0.011) [1.07 - 1.11]	1.10 (0.011) [1.09 - 1.12]	-0.014 (0.0070)	-0.032, 0.0043	0.107	(1.05 - 1.13) [0.92, 1.25]	1.12 ^a

TABLE 4. Statistical Summary of Combined Site Soybean Protein Isolate Fraction Amino Acid, Fatty Acid and Moisture Content for Test (MON 87769) vs. the Conventional Control (A3525) (cont.)

Analytical Component (Units) ¹	MON 87769 Mean (S.E.) [Range]	A3525 Mean (S.E.) [Range]	Difference (Test minus Control)			Commercial (Range) [99% Tolerance Interval ²]	Literature /Historical Range ³
			Mean (S.E.)	95% CI (Lower, Upper)	p-Value		
Amino Acid (% DW)							
Tyrosine (% DW)	3.43 (0.040) [3.33 - 3.52]	3.52 (0.040) [3.44 - 3.58]	-0.087 (0.042)	-0.19, 0.020	0.091	(3.33 - 3.60) [3.03, 3.89]	-
Valine (% DW)	4.48 (0.061) [4.44 - 4.56]	4.63 (0.061) [4.51 - 4.74]	-0.14 (0.086)	-0.51, 0.23	0.236	(4.34 - 4.65) [4.01, 5.03]	4.1 ^a
Fatty Acid (% Total FA)							
16:0 Palmitic (% Total FA)	21.16 (0.88) [19.41 - 23.08]	20.64 (0.88) [19.05 - 23.52]	0.52 (1.24)	-2.53, 3.56	0.691	(13.99 - 22.65) [3.93, 32.72]	NA
17:0 Heptadecanoic (% Total FA)	0.16 (0.020) [0.10 - 0.20]	0.11 (0.020) [0.081 - 0.13]	0.051 (0.027)	-0.29, 0.39	0.310	(0.086 - 0.19) [0, 0.27]	NA
18:0 Stearic (% Total FA)	5.68 (0.21) [5.16 - 6.29]	5.32 (0.21) [4.96 - 5.83]	0.36 (0.30)	-0.38, 1.09	0.281	(4.73 - 5.91) [3.15, 7.60]	NA
18:1 Total 18:1 Cis (% Total FA)	16.33 (1.91) [13.21 - 19.57]	16.53 (1.91) [13.94 - 20.16]	-0.20 (1.26)	-3.45, 3.04	0.878	(17.57 - 20.75) [13.35, 24.51]	NA
18:2 9c,12c Linoleic (% Total FA)	23.62 (3.96) [18.07 - 30.86]	48.89 (3.96) [43.12 - 51.04]	-25.28 (5.59)	-49.35, -1.20	0.045	(43.75 - 52.46) [34.57, 63.34]	NA
18:3 9c,12c,15t (Trans ALA) (% Total FA)	0.62 (0.064) [0.51 - 0.72]	0.19 (0.064) [0.081 - 0.24]	0.43 (0.037)	0.33, 0.52	<0.001	(0.049 - 0.23) [0, 0.37]	NA

TABLE 4. Statistical Summary of Combined Site Soybean Protein Isolate Fraction Amino Acid, Fatty Acid and Moisture Content for Test (MON 87769) vs. the Conventional Control (A3525) (cont.)

Analytical Component (Units) ¹	MON 87769 Mean (S.E.) [Range]	A3525 Mean (S.E.) [Range]	Difference (Test minus Control)			Commercial (Range) [99% Tolerance Interval ²]	Literature /Historical Range ³
			Mean (S.E.)	95% CI (Lower, Upper)	p-Value		
Fatty Acid (% Total FA)							
18:3 Linolenic (% Total FA)	11.01 (0.93) [9.60 - 12.55]	7.12 (0.93) [5.84 - 8.45]	3.89 (0.45)	2.73, 5.05	<0.001	(6.13 - 7.88) [3.77, 10.13]	NA
20:0 Arachidic (% Total FA)	0.33 (0.020) [0.30 - 0.36]	0.26 (0.020) [0.22 - 0.28]	0.066 (0.029)	-0.058, 0.19	0.148	(0.22 - 0.33) [0.11, 0.45]	NA
22:0 Behenic (% Total FA)	0.35 (0.024) [0.31 - 0.37]	0.39 (0.024) [0.33 - 0.44]	-0.037 (0.022)	-0.092, 0.019	0.149	(0.34 - 0.43) [0.26, 0.54]	NA
24:0 Lignoceric (% Total FA)	0.34 (0.096) [0.23 - 0.42]	0.55 (0.096) [0.32 - 0.82]	-0.21 (0.14)	-0.54, 0.12	0.171	(0.41 - 0.75) [0, 1.20]	NA
Proximate							
Moisture (% FW)	3.22 (0.28) [2.56 - 3.64]	2.73 (0.28) [2.03 - 3.56]	0.50 (0.40)	-0.47, 1.47	0.256	(1.97 - 3.28) [0.47, 4.66]	3.9 - 7.0 ^e

¹DW = dry weight; FW = fresh weight; FA = fatty acid; S.E. = standard error; CI = Confidence Interval.

²With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits were set to zero.

³Literature/Historical range references: ^a OECD, 2001, ^b Mattil, 1974.

TABLE 5. Statistical Summary of Combined Site Soybean Lecithin Fraction Fatty Acid and Phosphatide Content for Test (MON 87769) vs. the Conventional Control (A3525)

Analytical Component (Units) ¹	MON 87769 Mean (S.E.) [Range]	A3525 Mean (S.E.) [Range]	Difference (Test minus Control)			Commercial (Range) [99% Tolerance Interval ²]	Literature /Historical Range ³
			Mean (S.E.)	95% CI (Lower, Upper)	p-Value		
Fatty Acid (% Total FA)							
16:0 Palmitic (% Total FA)	15.49 (0.45) [15.40 - 15.60]	14.17 (0.45) [13.43 - 16.02]	1.33 (0.62)	-0.26, 2.92	0.084	(12.44 - 13.87) [10.59, 15.10]	NA
17:0 Heptadecanoic (% Total FA)	0.097 (0.024) [0.061 - 0.13]	0.088 (0.024) [0.061 - 0.12]	0.0084 (0.034)	-0.42, 0.44	0.846	(0.052 - 0.12) [0, 0.22]	NA
18:0 Stearic (% Total FA)	4.21 (0.071) [4.10 - 4.36]	3.94 (0.071) [3.90 - 4.00]	0.27 (0.091)	-0.88, 1.43	0.205	(3.80 - 4.30) [3.12, 4.97]	NA
18:1 Total 18:1 Cis (% Total FA)	13.23 (0.70) [12.23 - 14.22]	14.25 (0.70) [12.37 - 16.39]	-1.01 (1.00)	-3.45, 1.43	0.349	(15.41 - 18.09) [11.95, 21.58]	NA
18:2 9c,12c Linoleic (% Total FA)	28.21 (4.32) [22.06 - 34.41]	57.98 (4.32) [57.30 - 58.67]	-29.78 (6.03)	-106.37, 46.82	0.127	(56.62 - 59.17) [53.29, 61.79]	NA
18:3 Linolenic (% Total FA)	13.91 (1.24) [12.32 - 15.54]	8.67 (1.24) [7.70 - 9.60]	5.24 (0.79)	-4.73, 15.22	0.094	(6.59 - 8.58) [3.71, 11.70]	NA
20:0 Arachidic (% Total FA)	0.29 (0.011) [0.28 - 0.31]	0.25 (0.011) [0.22 - 0.29]	0.040 (0.015)	0.0034, 0.076	0.036	(0.25 - 0.30) [0.19, 0.35]	NA
20:1 Eicosenoic (% Total FA)	0.14 (0.016) [0.13 - 0.15]	0.10 (0.016) [0.061 - 0.16]	0.037 (0.023)	-0.020, 0.093	0.161	(0.12 - 0.18) [0.037, 0.25]	NA

TABLE 5. Statistical Summary of Combined Site Soybean Lecithin Fraction Fatty Acid and Phosphatide Content for Test (MON 87769) vs. the Conventional Control (A3525) (cont.)

Analytical Component (Units) ¹	MON 87769 Mean (S.E.) [Range]	A3525 Mean (S.E.) [Range]	Difference (Test minus Control)			Commercial (Range) [99% Tolerance Interval ²]	Literature /Historical Range ³
			Mean (S.E.)	95% CI (Lower, Upper)	p-Value		
Fatty Acid (% Total FA)							
22:0 Behenic (% Total FA)	0.35 (0.0072) [0.33 - 0.36]	0.35 (0.0072) [0.34 - 0.36]	-0.0047 (0.0085)	-0.027, 0.017	0.608	(0.36 - 0.41) [0.30, 0.47]	NA
24:0 Lignoceric (% Total FA)	0.17 (0.0098) [0.17 - 0.18]	0.20 (0.0098) [0.18 - 0.24]	-0.033 (0.013)	-0.065, -0.00018	0.049	(0.19 - 0.28) [0.078, 0.35]	NA
Phosphatide							
L-alpha-Phosphatidic Acid (% FW)	3.90 (0.43) [3.16 - 4.54]	3.54 (0.43) [2.74 - 4.12]	0.36 (0.30)	-0.40, 1.12	0.278	(3.40 - 5.65) [0.71, 8.07]	0.2 - 14.0 ^a
L-alpha-Phosphatidylcholine (% FW)	7.16 (1.16) [6.37 - 8.16]	7.28 (1.16) [5.37 - 10.25]	-0.12 (1.02)	-13.06, 12.83	0.926	(5.66 - 8.54) [2.16, 11.62]	12.0 - 46.0 ^a
L-alpha-Phosphatidylethanolamine (% FW)	5.66 (0.67) [5.43 - 6.14]	5.48 (0.67) [4.40 - 7.42]	0.18 (0.72)	-9.01, 9.38	0.843	(4.73 - 5.97) [2.98, 7.63]	8.0 - 34.0 ^a
L-alpha-Phosphatidylinositol (% FW)	4.98 (0.37) [4.44 - 5.47]	4.67 (0.37) [4.00 - 5.89]	0.31 (0.53)	-1.96, 2.57	0.621	(3.93 - 5.01) [2.68, 6.61]	1.7 - 21.0 ^a

¹FW = fresh weight; FA = fatty acid; S.E. = standard error; CI = Confidence Interval.

²With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits were set to zero.

³Literature/Historical range references: ^aSzuhaj, 2005.

Table 6. Summary of Differences (p<0.05) for the Comparison of Soybean Component Levels for Test (MON 87769) vs. the Conventional Control (A3525) and Commercial Reference Substances

Component (Units) ¹	MON 87769 Mean	A3525 Mean	Mean Difference (Test minus Control)		Test Range	Commercial Tolerance Interval ²
			Mean Difference (% of A3525)	Signif. (p-Value)		
Seed Amino Acid (% DW)						
Alanine (% DW)	1.77	1.72	2.53	0.008	[1.72 - 1.80]	[1.53, 1.87]
Arginine (% DW)	3.40	3.18	6.93	0.020	[3.13 - 3.72]	[2.32, 3.84]
Tryptophan (% DW)	0.52	0.49	4.78	<0.001	[0.51 - 0.53]	[0.42, 0.56]
Seed Fatty Acid (% Total FA)						
16:0 Palmitic (% Total FA)	12.38	11.68	5.97	0.012	[12.36 - 12.40]	[7.70, 13.58]
18:0 Stearic (% Total FA)	4.29	4.16	3.29	0.008	[4.24 - 4.37]	[3.15, 5.20]
Seed Fiber						
Neutral Detergent Fiber (% DW)	14.53	16.86	-13.81	0.020	[13.44 - 15.96]	[9.49, 22.92]
Seed Proximate						
Carbohydrates (% DW)	35.48	36.88	-3.78	0.019	[34.71 - 35.99]	[31.88, 39.97]
Fat (% DW)	18.19	17.53	3.73	0.048	[16.60 - 19.55]	[12.90, 25.93]
Seed Isoflavone						
Daidzein (µg/g DW)	1023.92	1490.99	-31.33	0.040	[906.80 - 1155.04]	[0, 2040.66]
Genistein (µg/g DW)	621.84	912.76	-31.87	0.047	[545.80 - 694.10]	[184.57, 1380.83]
Meal Amino Acid (% DW)						
Aspartic Acid (% DW)	6.10	6.00	1.68	0.006	[6.05 - 6.13]	[5.21, 6.97]
Glutamic Acid (% DW)	9.79	9.58	2.25	0.002	[9.78 - 9.81]	[8.21, 11.33]

Table 6. Summary of Differences (p<0.05) for the Comparison of Soybean Component Levels for Test (MON 87769) vs. the Conventional Control (A3525) and Commercial Reference Substances (cont.)

Component (Units) ¹	MON 87769 Mean	A3525 Mean	Mean Difference (Test minus Control)		Test Range	Commercial Tolerance Interval ²
			Mean Difference (% of A3525)	Signif. (p-Value)		
Meal Amino Acid (% DW)						
Histidine (% DW)	1.42	1.40	1.46	0.017	[1.41 - 1.43]	[1.28, 1.57]
Tryptophan (% DW)	0.68	0.67	1.75	0.006	[0.66 - 0.70]	[0.57, 0.77]
Meal Fatty Acid (% Total FA)						
16:0 Palmitic (% Total FA)	14.25	12.83	10.99	<0.001	[14.08 - 14.41]	[9.13, 14.71]
18:1 Total 18:1 Cis (% Total FA)	16.85	17.63	-4.46	0.028	[17.17 - 17.25]	[13.11, 25.57]
18:2 9c,12c Linoleic (% Total FA)	34.14	58.32	-41.45	<0.001	[34.57 - 34.66]	[54.41, 63.54]
18:3 Linolenic (% Total FA)	13.14	11.22	17.13	<0.001	[12.19 - 12.20]	[3.82, 15.72]
Meal Fiber						
Acid Detergent Fiber (% DW)	5.18	4.52	14.57	0.014	[4.93 - 5.46]	[1.79, 7.28]
Meal Proximate						
Carbohydrates (% DW)	38.00	40.05	-5.13	0.003	[37.49 - 38.38]	[28.99, 48.21]
RBD Oil Fatty Acid (% Total FA)						
16:0 Palmitic (% Total FA)	12.10	11.48	5.34	<0.001	[11.98 - 12.23]	[7.68, 13.21]
18:0 Stearic (% Total FA)	4.18	4.08	2.41	0.010	[4.13 - 4.20]	[3.00, 5.17]
18:3 9c,12c,15t (Trans ALA) (% Total FA)	0.51	0.14	258.16	0.035	[0.47 - 0.54]	[0, 0.24]
24:0 Lignoceric (% Total FA)	0.093	0.12	-24.19	<0.001	[0.076 - 0.11]	[0, 0.26]

Table 6. Summary of Differences (p<0.05) for the Comparison of Soybean Component Levels for Test (MON 87769) vs. the Conventional Control (A3525) and Commercial Reference Substances (cont.)

Component (Units) ¹	MON 87769 Mean	A3525 Mean	Mean Difference (Test minus Control)		Test Range	Commercial Tolerance Interval ²
			Mean Difference (% of A3525)	Signif. (p-Value)		
RBD Oil Vitamin						
Vitamin E (mg/100g FW)	8.61	7.14	20.71	<0.001	[6.56 - 10.90]	[0, 29.82]
Protein Isolate Amino Acid (% DW)						
Leucine (% DW)	7.28	7.47	-2.54	0.044	[7.13 - 7.37]	[6.62, 8.11]
Protein Isolate Fatty Acid (% Total FA)						
18:2 9c,12c Linoleic (% Total FA)	23.62	48.89	-51.70	0.045	[18.07 - 30.86]	[34.57, 63.34]
18:3 9c,12c,15t (Trans ALA) (% Total FA)	0.62	0.19	223.50	<0.001	[0.51 - 0.72]	[0, 0.37]
18:3 Linolenic (% Total FA)	11.01	7.12	54.64	<0.001	[9.60 - 12.55]	[3.77, 10.13]
Lecithin Fatty Acid (% Total FA)						
20:0 Arachidic (% Total FA)	0.29	0.25	15.71	0.036	[0.28 - 0.31]	[0.19, 0.35]
24:0 Lignoceric (% Total FA)	0.17	0.20	-16.07	0.049	[0.17 - 0.18]	[0.078, 0.35]

¹DW = dry weight; FW = fresh weight; FA = fatty acid.

²With 95% confidence, interval contains 99% of the values expressed in the population of commercial substances. Negative limits were set to zero.

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

Fraction	Category	Analyte	(N) Below LOQ	(N) Total	(%)
Seed	Fatty Acid	08:0 Caprylic	32	32	100.0
		10:0 Capric	32	32	100.0
		12:0 Lauric	32	32	100.0
		14:0 Myristic	32	32	100.0
		14:1 Myristoleic	32	32	100.0
		15:0 Pentadecanoic	32	32	100.0
		15:1 Pentadecenoic	32	32	100.0
		16:1 Palmitoleic	32	32	100.0
		17:0 Heptadecanoic	32	32	100.0
		17:1 Heptadecenoic	32	32	100.0
		18:1T Total 18:1 Trans	32	32	100.0
		18:2 6c, 9c (Isolinoleic Acid)	32	32	100.0
		18:2T Total 18:2 Trans	32	32	100.0
		18:3 9c, 12c, 15t (Trans ALA)	24	32	75.0
		18:3 Gamma Linolenic	24	32	75.0
		18:3 Other 18:3 Trans	32	32	100.0
		18:4 6c,9c,12c,15t (Trans SDA)	32	32	100.0

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

Fraction	Category	Analyte	(N) Below LOQ	(N) Total	(%)
		18:4 Stearidonic	24	32	75.0
		20:0 Arachidic	23	32	71.9
		20:1 Eicosenoic	32	32	100.0
		20:2 Eicosadienoic	32	32	100.0
		20:3 Eicosatrienoic	32	32	100.0
		20:4 Arachidonic	32	32	100.0
		20:5 Eicosapentaenoic	32	32	100.0
		22:0 Behenic	28	32	87.5
		22:1 Erucic	32	32	100.0
		22:5 Docosapentaenoic	32	32	100.0
		22:6 Docosahexaenoic	32	32	100.0
		24:0 Lignoceric	32	32	100.0
Meal	Fatty Acid	08:0 Caprylic	32	32	100.0
		10:0 Capric	32	32	100.0
		12:0 Lauric	32	32	100.0
		14:0 Myristic	32	32	100.0
		14:1 Myristoleic	32	32	100.0

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

Fraction	Category	Analyte	(N) Below LOQ	(N) Total	(%)
		15:0 Pentadecanoic	32	32	100.0
		15:1 Pentadecenoic	32	32	100.0
		16:1 Palmitoleic	32	32	100.0
		17:0 Heptadecanoic	32	32	100.0
		17:1 Heptadecenoic	32	32	100.0
		18:0 Stearic	28	32	87.5
		18:1T Total 18:1 Trans	32	32	100.0
		18:2 6c,9c (Isolinoleic Acid)	32	32	100.0
		18:2T Total 18:2 Trans	32	32	100.0
		18:3 9c,12c,15t (Trans ALA)	32	32	100.0
		18:3 Gamma Linolenic	28	32	87.5
		18:3 Other 18:3 Trans	32	32	100.0
		18:4 6c,9c,12c,15t (Trans SDA)	32	32	100.0
		18:4 Stearidonic	24	32	75.0
		20:0 Arachidic	32	32	100.0
		20:1 Eicosenoic	32	32	100.0
		20:2 Eicosadienoic	32	32	100.0

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

Fraction	Category	Analyte	(N) Below LOQ	(N) Total	(%)
		20:3 Eicosatrienoic	32	32	100.0
		20:4 Arachidonic	32	32	100.0
		20:5 Eicosapentaenoic	32	32	100.0
		22:0 Behenic	32	32	100.0
		22:1 Erucic	32	32	100.0
		22:5 Docosapentaenoic	32	32	100.0
		22:6 Docosahexaenoic	32	32	100.0
		24:0 Lignoceric	32	32	100.0
RBD Oil	Fatty Acid	08:0 Caprylic	32	32	100.0
		10:0 Capric	32	32	100.0
		12:0 Lauric	32	32	100.0
		14:1 Myristoleic	32	32	100.0
		15:0 Pentadecanoic	32	32	100.0
		15:1 Pentadecenoic	32	32	100.0
		17:1 Heptadecenoic	32	32	100.0
		18:1T Total 18:1 Trans	31	32	96.9
		18:2T Total 18:2 Trans	32	32	100.0

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

Fraction	Category	Analyte	(N) Below LOQ	(N) Total	(%)
		18:3 Gamma Linolenic	24	32	75.0
		18:4 6c,9c,12c,15t (Trans SDA)	24	32	75.0
		18:4 Stearidonic	24	32	75.0
		20:2 Eicosadienoic	32	32	100.0
		20:3 Eicosatrienoic	32	32	100.0
		20:4 Arachidonic	32	32	100.0
		20:5 Eicosapentaenoic	32	32	100.0
		22:1 Erucic	32	32	100.0
		22:5 Docosapentaenoic	32	32	100.0
		22:6 Docosahexaenoic	32	32	100.0
Protein Isolate	Fatty Acid	08:0 Caprylic	32	32	100.0
		10:0 Capric	32	32	100.0
		12:0 Lauric	32	32	100.0
		14:0 Myristic	30	32	93.8
		14:1 Myristoleic	32	32	100.0
		15:0 Pentadecanoic	32	32	100.0
		15:1 Pentadecenoic	32	32	100.0

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

Fraction	Category	Analyte	(N) Below LOQ	(N) Total	(%)
		16:1 Palmitoleic	30	32	93.8
		17:1 Heptadecenoic	32	32	100.0
		18:1T Total 18:1 Trans	32	32	100.0
		18:2 6c,9c (Isolinoleic Acid)	28	32	87.5
		18:2T Total 18:2 Trans	32	32	100.0
		18:3 Gamma Linolenic	24	32	75.0
		18:3 Other 18:3 Trans	32	32	100.0
		18:4 6c,9c,12c,15t (Trans SDA)	24	32	75.0
		18:4 Stearidonic	24	32	75.0
		20:1 Eicosenoic	17	32	53.1
		20:2 Eicosadienoic	32	32	100.0
		20:3 Eicosatrienoic	32	32	100.0
		20:4 Arachidonic	32	32	100.0
		20:5 Eicosapentaenoic	32	32	100.0
		22:1 Erucic	32	32	100.0
		22:5 Docosapentaenoic	32	32	100.0
		22:6 Docosahexaenoic	32	32	100.0

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

Fraction	Category	Analyte	(N) Below LOQ	(N) Total	(%)
Lecithin	Fatty Acid	08:0 Caprylic	32	32	100.0
		10:0 Capric	32	32	100.0
		12:0 Lauric	32	32	100.0
		14:0 Myristic	32	32	100.0
		14:1 Myristoleic	32	32	100.0
		15:0 Pentadecanoic	32	32	100.0
		15:1 Pentadecenoic	32	32	100.0
		16:1 Palmitoleic	28	32	87.5
		17:1 Heptadecenoic	32	32	100.0
		18:1T Total 18:1 Trans	32	32	100.0
		18:2 6c,9c (Isolinoleic Acid)	32	32	100.0
		18:2T Total 18:2 Trans	32	32	100.0
		18:3 9c,12c,15t (Trans ALA)	24	32	75.0
		18:3 Gamma Linolenic	24	32	75.0
		18:3 Other 18:3 Trans	32	32	100.0
		18:4 6c,9c,12c,15t (Trans SDA)	28	32	87.5
		18:4 Stearidonic	24	32	75.0

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

Fraction	Category	Analyte	(N) Below LOQ	(N) Total	(%)
		20:2 Eicosadienoic	32	32	100.0
		20:3 Eicosatrienoic	32	32	100.0
		20:4 Arachidonic	32	32	100.0
		20:5 Eicosapentaenoic	32	32	100.0
		22:1 Erucic	32	32	100.0
		22:5 Docosapentaenoic	32	32	100.0
		22:6 Docosahexaenoic	32	32	100.0

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

Fraction	Category	Analyte	Material	Site	Monsanto ID	Original Value	Value Assigned	
Meal	Antinutrient	Trypsin Inhibitor	A3525	Site IL-2	07PP8329-00010	< 1.00	0.50	
			H3395	Site IL-2	07PP8329-00034	< 1.00	0.50	
				Site IL-2	07PP8329-00034	< 1.00	0.50	
			MON 87769	Site IL-1	07PP8329-00050	< 1.00	0.50	
				Site IL-1	07PP8329-00050	< 1.00	0.50	
				Site IL-2	07PP8329-00062	< 1.00	0.50	
	PN93B82	Site IL-1	07PP8329-00018	< 1.00	0.50			
	Fatty Acid	16:0 Palmitic	MON 87769	Site IL-1	07PP8329-00050	< 0.0600	0.030	
				Site IL-1	07PP8329-00050	< 0.0600	0.030	
		18:1 Total 18:1 Cis	MON 87769	Site IL-1	07PP8329-00050	< 0.0600	0.030	
				Site IL-1	07PP8329-00050	< 0.0600	0.030	
		18:3 Linolenic	MON 87769	Site IL-1	07PP8329-00050	< 0.0600	0.030	
Site IL-1				07PP8329-00050	< 0.0600	0.030		
RBD Oil	Fatty Acid	18:2 6c,9c (Isolinoleic Acid)	Midwest 3444	Site IL-1	07PP8329-00032	< 0.0600	0.030	
				NK32Z3	Site IL-1	07PP8329-00024	< 0.0600	0.030
					Site IL-1	07PP8329-00024	< 0.0600	0.030
		PN93B82	Site IL-1	07PP8329-00020	< 0.0600	0.030		
			Site IL-1	07PP8329-00020	< 0.0600	0.030		
		18:3 Other 18:3 Trans	93B15	Site IL-2	07PP8329-00048	< 0.0600	0.030	
				Site IL-2	07PP8329-00048	< 0.0600	0.030	
				H3802	Site IL-2	07PP8329-00040	< 0.0600	0.030
		Site IL-2	07PP8329-00040		< 0.0600	0.030		

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

Fraction	Category	Analyte	Material	Site	Monsanto ID	Original Value	Value Assigned
			MON 87769	Site IL-1	07PP8329-00052	< 0.0600	0.030
				Site IL-1	07PP8329-00052	< 0.0600	0.030
			P93B87	Site IL-2	07PP8329-00044	< 0.0600	0.030
Protein Isolate	Fatty Acid	17:0 Heptadecanoic	A3525	Site IL-1	07PP8329-00003	< 0.00500	0.0025
				Site IL-1	07PP8329-00003	< 0.00500	0.0025
				Site IL-1	07PP8329-00007	< 0.00500	0.0025
				Site IL-2	07PP8329-00011	< 0.00500	0.0025
				Site IL-2	07PP8329-00011	< 0.00500	0.0025
				Site IL-2	07PP8329-00015	< 0.00500	0.0025
			H3395	Site IL-2	07PP8329-00035	< 0.00500	0.0025
				Site IL-2	07PP8329-00035	< 0.00500	0.0025
			H3802	Site IL-2	07PP8329-00039	< 0.00500	0.0025
			MON 87769	Site IL-2	07PP8329-00059	< 0.00500	0.0025
			NK32Z3	Site IL-1	07PP8329-00023	< 0.00500	0.0025
				Site IL-1	07PP8329-00023	< 0.00500	0.0025
			PN93B82	Site IL-1	07PP8329-00019	< 0.00500	0.0025
				Site IL-1	07PP8329-00019	< 0.00500	0.0025
		18:3 9c,12c,15t (Trans ALA)	93B15	Site IL-2	07PP8329-00047	< 0.00500	0.0025
			A3525	Site IL-2	07PP8329-00015	< 0.00500	0.0025
				Site IL-2	07PP8329-00015	< 0.00500	0.0025
			H3802	Site IL-2	07PP8329-00039	< 0.00500	0.0025
				Site IL-2	07PP8329-00039	< 0.00500	0.0025

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

Fraction	Category	Analyte	Material	Site	Monsanto ID	Original Value	Value Assigned
			Midwest 3444	Site IL-1	07PP8329-00031	< 0.00500	0.0025
			NK32Z3	Site IL-1	07PP8329-00023	< 0.00500	0.0025
				Site IL-1	07PP8329-00023	< 0.00500	0.0025
			P93B87	Site IL-2	07PP8329-00043	< 0.00500	0.0025
				Site IL-2	07PP8329-00043	< 0.00500	0.0025
			PN93B82	Site IL-1	07PP8329-00019	< 0.00500	0.0025
				Site IL-1	07PP8329-00019	< 0.00500	0.0025
			Quality Plus 365C	Site IL-1	07PP8329-00027	< 0.00500	0.0025
				Site IL-1	07PP8329-00027	< 0.00500	0.0025
Lecithin	Fatty Acid	17:0 Heptadecanoic	93B15	Site IL-2	07PP8329-00045	< 0.0600	0.030
			A3525	Site IL-1	07PP8329-00001	< 0.0600	0.030
				Site IL-1	07PP8329-00001	< 0.0600	0.030
				Site IL-2	07PP8329-00009	< 0.0600	0.030
				Site IL-2	07PP8329-00009	< 0.0600	0.030
			H3395	Site IL-2	07PP8329-00033	< 0.0600	0.030
				Site IL-2	07PP8329-00033	< 0.0600	0.030
			H3802	Site IL-2	07PP8329-00037	< 0.0600	0.030
				Site IL-2	07PP8329-00037	< 0.0600	0.030
			MON 87769	Site IL-2	07PP8329-00057	< 0.0600	0.030
				Site IL-2	07PP8329-00057	< 0.0600	0.030
				Site IL-2	07PP8329-00061	< 0.0600	0.030
				Site IL-2	07PP8329-00061	< 0.0600	0.030
			Midwest 3444	Site IL-1	07PP8329-00029	< 0.0600	0.030

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

Fraction	Category	Analyte	Material	Site	Monsanto ID	Original Value	Value Assigned
			P93B87	Site IL-2	07PP8329-00041	< 0.0600	0.030
				Site IL-2	07PP8329-00041	< 0.0600	0.030
		20:1 Eicosenoic	A3525	Site IL-1	07PP8329-00001	< 0.0600	0.030
				Site IL-1	07PP8329-00001	< 0.0600	0.030
				Site IL-2	07PP8329-00009	< 0.0600	0.030
				Site IL-2	07PP8329-00009	< 0.0600	0.030