

SUMMARY

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REPORT TITLE

Nutrient Composition of a Transformed Soybean Cultivar Containing Aryloxyalkanoate  
Dioxygenase-12 (AAD-12), Double Mutant Maize EPSPS Gene (2mEPSPS), and  
Phosphinothricin Acetyltransferase (PAT) - Event DAS-444Ø6-6

DATA REQUIREMENTS

Not Applicable

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REPORT COMPLETED ON

5-AUG-2011

PERFORMING LABORATORY

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LABORATORY STUDY ID

101104.03

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Nutrient Composition of a Transformed Soybean Cultivar Containing Aryloxyalkanoate Dioxygenase-12 (AAD-12), Double Mutant Maize EPSPS Gene (2mEPSPS), and Phosphinothricin Acetyltransferase (PAT) - Event DAS-444Ø6-6

SUMMARY

Field trials with DAS-444Ø6-6 soybean, a non-transgenic control, and reference lines were conducted in 2010 at ten sites located in Georgia, Iowa (2 sites), Illinois (2 sites), Indiana, Michigan, Missouri, and Nebraska (2 sites). This report summarizes compositional analysis of forage and seed from the control, reference, and DAS-444Ø6-6 soybean (unsprayed or sprayed with 2,4-D, glyphosate, glufosinate, or all three herbicides).

Compositional analyses, including proximate, fiber, minerals, amino acids, fatty acids, vitamins, and bioactives were conducted to investigate the equivalency of DAS-444Ø6-6 soybean (with or without herbicide treatments) to non-transgenic soybean. Results for DAS-444Ø6-6 composition samples were all indistinguishable from the non-transgenic near-isogenic control line and/or within literature ranges for non-transgenic soybean. Results from this study demonstrate compositional equivalence between event DAS-444Ø6-6 (unsprayed and sprayed) and non-transgenic soybean.

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Compound: DAS-444Ø6-6

Title: Nutrient Composition of a Transformed Soybean Cultivar Containing Aryloxyalkanoate Dioxygenase-12 (AAD-12), Double Mutant Maize EPSPS Gene (2mEPSPS), and Phosphinothricin Acetyltransferase (PAT) - Event DAS-444Ø6-6

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## STATEMENT OF COMPLIANCE WITH GOOD LABORATORY PRACTICE STANDARDS

Title: Nutrient Composition of a Transformed Soybean Cultivar Containing  
Aryloxyalkanoate Dioxygenase-12 (AAD-12), Double Mutant Maize EPSPS Gene  
(2mEPSPS), and Phosphinothricin Acetyltransferase (PAT) - Event DAS-444Ø6-6

Study Initiation Date: 29-April-2010

This report represents data generated after the effective date of the EPA FIFRA Good Laboratory Practice Standards.

United States Environmental Protection Agency  
Title 40 Code of Federal Regulations Part 160  
FEDERAL REGISTER, August 17, 1989

Organisation for Economic Co-Operation and Development  
ENV/MC/CHEM(98)17, Paris January 26, 1998

All aspects of this study were conducted in accordance with the requirements for Good Laboratory Practice Standards, 40 CFR 160, except for the following: for certain sites documentation is incomplete by GLP standards for climatological data, irrigation data, field history, pesticide maintenance, sample weights, soil property and crop information. The test substance was characterized during the study, but not prior to study initiation. The statistical analysis of the data was conducted using SAS software, version 9.2, which was not validated according to GLP.

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## QUALITY ASSURANCE STATEMENT

Compound: **DAS-444Ø6-6**

Title: Nutrient Composition of a Transformed Soybean Cultivar Containing  
Aryloxyalkanoate Dioxygenase-12 (AAD-12), Double Mutant Maize EPSPS  
Gene (2mEPSPS), and Phosphinothricin Acetyltransferase (PAT) - Event  
DAS-44T4Ø6-6

Study Initiation Date: 29-April-2010

Report Completion Date:

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Principal Field Investigators:

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101104IL1	Tim Boeker, SGS Alvey Ag Research	Carlyle, IL
101104IL2	Sue Dorsey, SGS Alvey Ag Research	Wyoming, IL
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ABSTRACT

Field trials with DAS-444Ø6-6 soybean, a non-transgenic control, and reference lines were conducted in 2010 at ten sites located in Georgia, Iowa (2 sites), Illinois (2 sites), Indiana, Michigan, Missouri, and Nebraska (2 sites). This report summarizes compositional analysis of forage and seed from the control, reference, and DAS-444Ø6-6 soybean (unsprayed or sprayed with 2,4-D, glyphosate, glufosinate, or all three herbicides).

Compositional analyses, including proximate, fiber, minerals, amino acids, fatty acids, vitamins, and bioactives were conducted to investigate the equivalency of DAS-444Ø6-6 soybean (with or without herbicide treatments) to non-transgenic soybean. Results for DAS-444Ø6-6 composition samples were all indistinguishable from the non-transgenic near-isogenic control line and/or within literature ranges for non-transgenic soybean. Results from this study demonstrate compositional equivalence between event DAS-444Ø6-6 (unsprayed and sprayed) and non-transgenic soybean.

## INTRODUCTION

The purpose of this study was to investigate the composition of DAS-444Ø6-6 (AAD-12 + 2mEPSPS + PAT) soybean compared with a near-isogenic non-transformed soybean line, ranges from non-transgenic reference lines included in the study, and literature values for non-transgenic varieties.

Field trials were conducted at ten test sites that are located within the major soybean-producing regions of the U.S. and represent regions of diverse agronomic practices and environmental conditions. The trials were located in Georgia, Iowa (2 sites), Illinois (2 sites), Indiana, Michigan, Missouri, and Nebraska (2 sites). Study amendments and deviations related to this report are listed in Appendix A, Table 1.

## MATERIALS AND METHODS

### Test Substance

The test substance was seed containing the DAS-444Ø6-6 event. The test substance, treatments, and test substance characterization reference are listed in Table 1. This study also included additional test entries (5-9, 15-24) that are not presented in this report as these entries included other transformation events.

Table 1. Test substances.

Test Entry	Source ID Number	Test Entry Description	Reference
10	YX09KX950434	DAS-444Ø6-6 Unsprayed	BIOT10-262920 <sup>[1]</sup>
11	YX09KX950434	DAS-444Ø6-6 Sprayed with 2,4-D	BIOT10-262920 <sup>[1]</sup>
12	YX09KX950434	DAS-444Ø6-6 Sprayed with glufosinate	BIOT10-262920 <sup>[1]</sup>
13	YX09KX950434	DAS-444Ø6-6 Sprayed with glyphosate	BIOT10-262920 <sup>[1]</sup>
14	YX09KX950434	DAS-444Ø6-6 Sprayed with 2,4-D, glufosinate, and glyphosate	BIOT10-262920 <sup>[1]</sup>

### Control and Reference Substances

The control substance (variety: Maverick) was non-transgenic seed of the same genetic background as the test substance line, but did not contain AAD-12, 2mEPSPS, or PAT proteins expressed in event DAS-444Ø6-6. The near-isogenic non-transgenic control substance (hereafter referred to as isoline) used for this study is listed in Table 2.

Table 2. Control substance.

Test Entry	ID Number	Description	Reference
1	YX09KX540002	Non-transgenic Control	BIOT10-262920 <sup>[1]</sup>

Six different non-transgenic soybean lines were used as reference substances in this study (Table 3). Reference lines were of a similar maturity to the control and test substance. Reference lines were randomized across sites in a balanced incomplete-block (BIB) design with three references at each site (entry numbers 2, 3, and 4) and each reference line present at five sites.

Table 3. Reference substances.

Reference Lines
Dairyland Seed (DSR) 75213-72
Dairyland Seed (DSR) 98860-71
Dairyland Seed (DSR) 99914N
Dairyland Seed (DSR) 99915
Porter 75148
Williams 82

### Test System

The test system for this study was soybean plants produced from the genetically modified, control, and reference soybean seed grown at locations within the major soybean growing regions of the U.S. The ten field testing facilities were located near Sycamore, GA; Richland, IA; Bagley, IA; Carlyle, IL; Wyoming, IL; Sheridan, IN; Deerfield, MI; Fisk, MO; Brunswick, NE; York, NE (referred to as GA, IA1, IA2, IL1, IL2, IN, MI, MO, NE1, and NE2), and represent regions of diverse agronomic practices and environmental conditions for soybean (Table 4).

Table 4. Field site information.

Site	Field Investigator	Site Location	Soil Type
101104GA	Chris Cromer, Ag Research Associates	Sycamore, GA	Tifton Loamy Sand
101104IA1	David Bennett, Bennett Agricultural Research Corporation	Richland, IA	Taintor Silty Clay Loam
101104IA2	Dan Easton, Easton Agri- Consulting, Inc.	Bagley, IA	Clarion Loam
101104IL1	Tim Boeker, SGS Alvey Ag Research	Carlyle, IL	Hoyleton Darmstadt Complex Silt Loam
101104IL2	Sue Dorsey, SGS Alvey Ag Research	Wyoming, IL	Plano Silt Loam
101104IN	Fritz Koppatschek, ABG Ag Services	Sheridan, IN	Crosby Silt Loam
101104MI	Chad Harris, Ag Research Associates	Deerfield, MI	Lenawee Silty Clay Loam
101104MO	Nathan Goldschmidt, Shoffner Farm Research, Inc.	Fisk, MO	Amagon Silt Loam / Bulltown Fine Sand
101104NE1	Eric Ehlers, Ag Research Associates	Brunswick, NE	Ovina Loamy Fine Sand
101104NE2	Matthew Krause Ag Research Associates	York, NE	Hastings Silt Loam



## Herbicide Applications

**2,4-D only Treatment – Entry 11:** 2,4-D (Weedar 64) (Table 5) was applied as three broadcast applications to DAS-444Ø6-6 in Test Entry 11. Application timing was at planting / pre-emergence, and approximately V3 and R2 stages. Individual target application rates were 1.0 lb ae (acid equivalent)/A for Weedar 64, or 1120 g ae/ha. Actual application rates ranged from 1091 – 1178 g ae/A <sup>[2]</sup>.

**Glufosinate Treatment – Entry 12:** Glufosinate (Liberty) (Table 5) was applied as two broadcast applications to DAS-444Ø6-6 in Test Entry 12. Application timing was at approximately V5 and R1 stages. The target application rate for the first application was 0.33 lb ai/A for Liberty, or 374 g ai/ha. Actual application rates for the first application ranged from 364 – 393 g ai/ha <sup>[2]</sup>. The target application rate for the second application was 0.41 lb ai/A for Liberty, or 454 g ai/ha. Actual application rates for the second application ranged from 444 – 472 g ai/ha <sup>[2]</sup>.

**Glyphosate only Treatment – Entry 13:** Glyphosate (Durango DMA) (Table 5) was applied as three broadcast applications to DAS-444Ø6-6 in Test Entry 13. Individual applications were at planting / pre-emergence, and approximately V3 and R2 stages. Individual target application rates were 1.1 lb ae/A for Durango DMA, or 1260 g ae/ha. Actual application rates ranged from 1211 – 1316 g ae/A <sup>[2]</sup>.

**2,4-D + Glufosinate + Glyphosate Treatment – Entry 14:** 2,4-D (Weedar 64) + Glyphosate (Durango DMA) as a tank mixture was applied as three broadcast applications to DAS-444Ø6-6 in Test Entry 14. Individual applications were at planting / pre-emergence, and approximately V3 and R2 stages. Individual target application rates were 1.0 lb ae/A for Weedar 64, or 1120 g ae/ha. Actual application rates ranged from 1083 – 1172 g ae/A <sup>[2]</sup>. Individual target application rates were 1.1 lb ae/A for Durango DMA, or 1260 g ae/ha. Actual application rates ranged from 1134 – 1337 g ae/ha <sup>[2]</sup>. Glufosinate (Liberty) was also applied as two broadcast applications to DAS-444Ø6-6 in Test Entry 14. Application timing was at approximately V5 and R1 stages. The target application rate for the first application was 0.33 lb ai/A for Liberty, or 374 g ai/ha.

Actual application rates for the first application ranged from 373 – 393 g ai/ha <sup>[2]</sup>. The target application rate for the second application was 0.41 lb ai/A for Liberty, or 454 g ai/ha. Actual application rates for the second application ranged from 432 – 475 g ai/ha <sup>[2]</sup>.

Table 5. Herbicide specifications.

Herbicide <sup>a</sup>	Test Substance Number (TSN)	Concentration
Weedar 64	026491-0010	39.1 % w/w, 454 g ae/L <sup>b</sup>
Durango DMA	016429-0044	40.5 % w/w, 490 g ae/L <sup>b</sup>
Liberty	022582-0012	18 % w/w, 200 g ai/L <sup>c</sup>

<sup>a</sup> Herbicide applications included approximately 2% v/v Ammonium sulfate (AMS)

<sup>b</sup> ae = acid equivalent.

<sup>c</sup> ai = active ingredient.

### Field sample storage and shipping

Each sample was assigned a unique number that was used for identification and tracking. Samples were grouped together according to site, growth stage, and tissue type, which corresponded to a single sample group number (SGN). All composition samples were shipped frozen to Covance Laboratories, Madison, WI by freezer truck or overnight shipping. Table 6 contains sample group identifiers and the dates of sampling of composition samples.

Table 6. Sampling Information

Site	Planting Date	Sampling Date	SGN	Tissue Type
101104GA	9-Jun-10	3-Aug-10	51	Comp Forage
		22-Oct-10	52	Comp Seed
101104IA1	29-Jun-10	30-Aug-10	53	Comp Forage
		28-Oct-10	54	Comp Seed
101104IA2	7-Jun-10	12-Aug-10	55	Comp Forage
		13-Oct-10	56	Comp Seed
101104IL1	24-Jun-10	9-Aug-10	57	Comp Forage
		19-Oct-10	58	Comp Seed
101061IL2	10-Jun-10	11-Aug-10	59	Comp Forage
		19 & 20-Oct-10	60	Comp Seed
101104IN	2-Jul-10	27-Aug-10	61	Comp Forage
		20 & 21-Oct-10	62	Comp Seed
101104MI	14-Jun-10	23-Aug-10	63	Comp Forage
		4-Nov-10	64	Comp Seed
101104MO	18-Jun-10	9-Aug-10	65	Comp Forage
		6-Oct-10	66	Comp Seed
101104NE1	9-Jun-10	12-Aug-10	67	Comp Forage
		8-Nov-10	68	Comp Seed
101104NE2	17-Jun-10	18-Aug-10	69	Comp Forage
		25-Oct-10	70	Comp Seed

SGN = Sample Group Number; Comp = Composition.

## Compositional Analysis

Samples of soybean forage and seed were analyzed at Covance Laboratories Inc. for nutrient content. The analytes examined are presented in Table 7.

Table 7. Composition analytes.

A. Forage					
Proximates and Fiber		Minerals			
Protein	Calcium				
Fat	Phosphorus				
Ash					
Moisture					
Carbohydrates					
Acid Detergent Fiber (ADF)					
Neutral Detergent Fiber (NDF)					
B. Seed					
Proximates and Fiber		Minerals		Amino Acids	
				Fatty Acids	
Protein	Calcium	Alanine	Lysine	8:0 Caprylic	18:0 Stearic
Fat	Copper	Arginine	Methionine	10:0 Capric	18:1 Oleic
Ash	Iron	Aspartic acid	Phenylalanine	12:0 Lauric	18:2 Linoleic
Moisture	Magnesium	Cystine	Proline	14:0 Myristic	18:3 Linolenic
Carbohydrates	Manganese	Glutamic acid	Serine	14:1 Myristoleic	18:3 γ-Linolenic
Acid Detergent Fiber (ADF)	Phosphorus	Glycine	Threonine	15:0 Pentadecanoic	20:0 Arachidic
Neutral Detergent Fiber (NDF)	Potassium	Histidine	Tryptophan	15:1 Pentadecenoic	20:1 Eicosenoic
Total Dietary Fiber	Selenium	Isoleucine	Tyrosine	16:0 Palmitic	20:2 Eicosadienoic
	Sodium	Leucine	Valine	16:1 Palmitoleic	20:3 Eicosatrienoic
	Zinc			17:0 Heptadecanoic	20:4 Arachidonic
				17:1 Heptadecenoic	22:0 Behenic
Vitamins			Bioactives		
Vitamin A (β-Carotene)	Vitamin C (Ascorbic acid)		Total Daidzein Equivalent		Lectin
Vitamin B <sub>1</sub> (Thiamine HCl)	Vitamin E (α-Tocopherol)		Total Genistein Equivalent		Phytic acid
Vitamin B <sub>2</sub> (Riboflavin)	β-Tocopherol		Total Glycitein Equivalent		Raffinose
Vitamin B <sub>3</sub> (Niacin)	γ-Tocopherol				Stachyose
Vitamin B <sub>5</sub> (Pantothenic acid)	δ-Tocopherol				Trypsin Inhibitor
Vitamin B <sub>6</sub> (Pyridoxine HCl)	Total Tocopherol				
Vitamin B <sub>9</sub> (Folic acid)					

The results of the compositional analysis for soybean forage and seed were compared with values reported in literature (Iskander 1987 <sup>[3]</sup>, Hartwig and Kilen 1991 <sup>[4]</sup>, Padgett et al. 1996 <sup>[5]</sup>, Taylor et al. 1999 <sup>[6]</sup>, OECD Consensus Document on Compositional Considerations for Soybean 2001 <sup>[7]</sup>, McCann et al. 2005 <sup>[8]</sup>, Harrigan et al. 2007 <sup>[9]</sup>, Bilyeu et al. 2008 <sup>[10]</sup>, Lundry et al. 2008 <sup>[11]</sup>, Berman et al. 2009 <sup>[12]</sup>, Berman et al. 2010 <sup>[13]</sup>, Harrigan et al. 2010 <sup>[14]</sup>, and ILSI Crop Composition Database 2010 <sup>[15]</sup>). A summary of the compositional data used for comparison can be found in Appendix B, Tables 1-6.

### Statistical Treatment

Prior to statistical analysis, the unit of measure was converted for select data (Table 8).

Table 8. Unit of measurement conversions.

Matrix	Analytical Component	From Unit	To Unit	Formula <sup>a</sup>
Seed	Fatty Acid (FA)	% Dry Weight (DW)	% Total FA	$(X_j/\Sigma X)*100$ , for each fatty acid ( $X_j$ ), where $\Sigma X$ is over all FA

<sup>a</sup>  $X_j$  is the individual sample value for the  $j^{\text{th}}$  fatty acid.

Analytes for which more than 50% of data across control and transgenic entries was less than the limit of quantitation (LOQ) were not included in analysis (Table 9).

Table 9. Seed analytes not included in statistical analysis: more than 50% of samples were below the limit of quantitation (< LOQ).

Fatty Acids		Vitamins
8:0 Caprylic	16:1 Palmitoleic	Vitamin A (β-Carotene) β-Tocopherol
10:0 Capric	17:0 Heptadecanoic	
12:0 Lauric	17:1 Heptadecenoic	Minerals Sodium
14:0 Myristic	18:3 γ-Linolenic	
14:1 Myristoleic	20:2 Eicosadienoic	
15:0 Pentadecanoic	20:3 Eicosatrienoic	
15:1 Pentadecenoic	20:4 Arachidonic	

Analysis of variance was conducted across field sites (combined-site analysis) for composition data using a mixed model (SAS Version 9.2; SAS Institute 2009 <sup>[16]</sup>). Entry was considered a fixed effect, and location, block within location, and location-by-entry, were designated as random effects. Significant differences were declared at the 95% confidence level. Data were not rounded off for statistical analysis. The significance of an overall treatment effect was estimated using an F-test. Paired contrasts were made between DAS-444Ø6-6 (sprayed or unsprayed) entries and the control entry using t-tests.

Due to the large number of contrasts made in this study, multiplicity was an issue. Multiplicity is an issue when a large number of comparisons are made in a single study to look for unexpected effects. Under these conditions, the probability of falsely declaring differences based on comparison-wise P-values is very high ( $1-0.95^{\text{number of comparisons}}$ ). In this study there were five comparisons per analyte (71 analyzed analytes for composition), resulting in 355 comparisons made in the combined-site composition analysis. Therefore, the probability of declaring one or more false differences based on unadjusted P-values was >99.99% ( $1-0.95^{355}$ ).

One method to account for multiplicity is to adjust P-values to control the experiment-wise error rate, but when many comparisons are made in a study, the power for detecting specific effects can be reduced significantly. An alternative with much greater power is to adjust P-values to control the probability that each declared difference is significant. This can be accomplished using a False Discovery Rate (FDR) control procedure <sup>[17]</sup>; FDR methods are commonly applied in studies examining transgenic crops <sup>[18, 19, 20, 21, 22, 23]</sup>. Therefore, the P-values from the composition contrasts were each adjusted using the FDR method to improve discrimination of true differences among treatments from random effects (false positives). Differences were considered significant if the FDR-adjusted P-value was less than 0.05.

## RESULTS AND DISCUSSION

### Composition Analysis Results

A statistical analysis of composition data from the non-transgenic near-isogenic, unsprayed DAS-444Ø6-6 and sprayed DAS-444Ø6-6 entries was conducted. A summary of the compositional results across locations is presented in Tables 10-17. For each analyte and entry, the least square means, standard error, and minimum and maximum sample values are reported. Also for comparison, the minimum and maximum values from reference lines across all sites (reference ranges) and literature ranges for each analyte are reported. Each minimum and maximum value is an individual data point reported for a single test plot, and applies to literature ranges except where noted. Arithmetic means for each analyte from each field site are plotted for the non-transgenic control, DAS-444Ø6-6 (sprayed and unsprayed), and reference line entries (Figures 1-9). Literature ranges reported as not detected (ND) or less than the limit of quantitation (<LOQ) were plotted as zeros. The composition sub-report from Covance Laboratories Inc. containing individual results for each sample can be found in Appendix C.

### Proximate, Fiber, and Mineral Analysis of Forage

Soybean forage samples from the control, reference, and DAS-444Ø6-6 entries were analyzed for proximate content (protein, fat, ash, moisture, and carbohydrates), fiber (acid detergent fiber (ADF), neutral detergent fiber (NDF)), and minerals (calcium and phosphorus). A summary of the results across all locations is presented in Tables 10 and 11 and Figures 1 and 2. All mean values were within literature ranges (when available) and within ranges for reference lines included in the study. No statistical differences were observed in the combined-site analysis between the control and DAS-444Ø6-6 entries for protein, fat, ash, carbohydrates, ADF, NDF, calcium, and phosphorus. Statistically significant differences were observed between the control and DAS-444Ø6-6 entries for moisture, where mean differences were negligible and not biologically meaningful as means were within literature ranges and within ranges for reference lines included in the study.

Table 10. Summary of the proximate and fiber analysis of DAS-44406-6 soybean forage from all sites, and associated literature range.

Analytical Component (Units) <sup>a</sup>	Overall Trt Effect (Pr > F) <sup>b</sup>	Isoline Mean ± SE Min - Max	DAS-44406-6 unsprayed Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ 2,4-D Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ Glufosinate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ Glyphosate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ Three Herbicides Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	Reference Range Min - Max	Combined Literature Range <sup>d</sup> Min - Max
<b>Proximate</b>									
Protein (% DW)	0.425	19.7 ± 0.5 13.7 - 23.4	19.7 ± 0.5 16 - 25.3 (0.890, 0.958)	19.4 ± 0.5 15.5 - 23.4 (0.227, 0.440)	19.2 ± 0.5 14.8 - 24.1 (0.103, 0.275)	19.6 ± 0.5 14.5 - 23.9 (0.655, 0.806)	19.7 ± 0.5 15.2 - 25.2 (0.990, 0.996)	13 - 29.1	11.2 - 24.71
Fat (% DW)	0.443	2.87 ± 0.1 1.95 - 4.11	2.75 ± 0.1 0.769 - 4.01 (0.337, 0.549)	2.81 ± 0.1 1.6 - 3.88 (0.648, 0.804)	2.85 ± 0.1 1.14 - 3.79 (0.886, 0.956)	2.68 ± 0.1 1.91 - 3.52 (0.122, 0.297)	2.68 ± 0.1 1.47 - 3.69 (0.121, 0.297)	1.69 - 4.63	1.01 - 9.87
Ash (% DW)	0.523	9.4 ± 0.8 7.13 - 28.3	9.2 ± 0.8 5.96 - 31 (0.766, 0.894)	8.9 ± 0.8 6.14 - 19 (0.388, 0.604)	9.7 ± 0.8 6.57 - 24 (0.542, 0.726)	8.9 ± 0.8 6.42 - 21.4 (0.367, 0.582)	8.9 ± 0.8 6.85 - 18.7 (0.301, 0.514)	5.86 - 36.6	4.68 - 10.782
Moisture (% FW)	<b>0.002</b>	78.7 ± 0.6 75.6 - 82.3	77.6 ± 0.6 71.8 - 80.5 ( <b>0.003, 0.023</b> )	77.6 ± 0.6 71 - 81 ( <b>0.003, 0.019</b> )	77.6 ± 0.6 69.9 - 81.1 ( <b>0.003, 0.020</b> )	77.2 ± 0.6 69.1 - 80.7 ( <b>&lt;0.001, 0.002</b> )	77.4 ± 0.6 69.8 - 81.1 ( <b>&lt;0.001, 0.005</b> )	70.9 - 81.4	32.05 - 84.60
Carbohydrates <sup>e</sup> (% DW)	0.534	68.0 ± 1 55.8 - 74.3	68.4 ± 1 49.8 - 76.3 (0.548, 0.729)	68.9 ± 1 59.1 - 73 (0.128, 0.303)	68.2 ± 1 53.8 - 74.4 (0.763, 0.894)	68.8 ± 1 56.3 - 74.4 (0.174, 0.372)	68.8 ± 1 59.5 - 73.8 (0.196, 0.400)	48.8 - 74.7	59.8 - 80.18
<b>Fiber</b>									
Acid Detergent Fiber (ADF) (% DW)	0.653	31.6 ± 0.9 22.9 - 38.7	31.5 ± 0.9 24.3 - 44.2 (0.933, 0.976)	31.7 ± 0.9 23 - 42.2 (0.882, 0.956)	31.7 ± 0.9 25 - 44.7 (0.903, 0.963)	32.3 ± 0.9 26 - 43.6 (0.478, 0.692)	30.6 ± 0.9 23.7 - 39.3 (0.301, 0.514)	21.5 - 57.2	22.72 - 59.03
Neutral Detergent Fiber (NDF) (% DW)	0.974	37.6 ± 1.2 29.1 - 46.5	37.4 ± 1.2 27.2 - 51.3 (0.840, 0.941)	38.1 ± 1.2 27.3 - 50 (0.609, 0.778)	37.3 ± 1.2 28.4 - 50.4 (0.759, 0.894)	37.5 ± 1.2 24.7 - 50 (0.924, 0.970)	37.6 ± 1.2 21.8 - 52.3 (0.951, 0.976)	24.9 - 63.1	19.61 - 73.05

Abbreviations: NA (Not Available) = analysis not performed, majority of data was < LOQ (Limit of Quantitation); ND (Not Detected) = < LOQ; NR = Not Reported.

<sup>a</sup> Unit of measure was not converted prior to analysis.

<sup>b</sup> Overall treatment effect estimated using an F-test.

<sup>c</sup> Comparison to the control using t-tests (P-value); P-values adjusted (Adj. P) using a False Discovery Rate (FDR) procedure; P-values < 0.05 were considered significant.

<sup>d</sup> Combined range from Appendix B.

<sup>e</sup> % Carbohydrates = 100 % - (% Protein + % Fat + % Ash + % Moisture)



Table 11. Summary of the mineral analysis of DAS-444Ø6-6 soybean forage from all sites, and associated literature range.

Analytical Component (Units) <sup>a</sup>	Overall Trt Effect (Pr > F) <sup>b</sup>	Isoline Mean ± SE Min - Max	DAS-444Ø6-6 unsprayed Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-444Ø6-6 sprayed w/ 2,4-D Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-444Ø6-6 sprayed w/ Glufosinate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-444Ø6-6 sprayed w/ Glyphosate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-444Ø6-6 sprayed w/ Three Herbicides Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	Reference Range Min - Max	Combined Literature Range <sup>d</sup> Min - Max
<b>Mineral</b>									
Calcium (mg/100g dry wt.)	0.222	1240 ± 63 880 - 1770	1236 ± 63 652 - 1590 (0.859, 0.949)	1208 ± 63 817 - 1560 (0.187, 0.384)	1211 ± 63 650 - 1540 (0.233, 0.443)	1227 ± 63 858 - 1600 (0.581, 0.758)	1263 ± 63 762 - 1760 (0.345, 0.554)	695 - 1860	NR
Phosphorus (mg/100g dry wt.)	0.690	271 ± 13 190 - 384	266 ± 13 177 - 381 (0.253, 0.458)	266 ± 13 197 - 374 (0.239, 0.449)	264 ± 13 186 - 385 (0.118, 0.294)	265 ± 13 197 - 399 (0.182, 0.378)	265 ± 13 170 - 394 (0.231, 0.443)	175 - 427	NR

Abbreviations: NA (Not Available) = analysis not performed, majority of data was < LOQ (Limit of Quantitation); ND (Not Detected) = < LOQ; NR = Not Reported.

<sup>a</sup> Unit of measure was converted from % dry wt. to mg/100g dry wt. prior to analysis.

<sup>b</sup> Overall treatment effect estimated using an F-test.

<sup>c</sup> Comparison to the control using t-tests (P-value); P-values adjusted (Adj. P) using a False Discovery Rate (FDR) procedure; P-values < 0.05 were considered significant.

<sup>d</sup> Combined range from Appendix B.

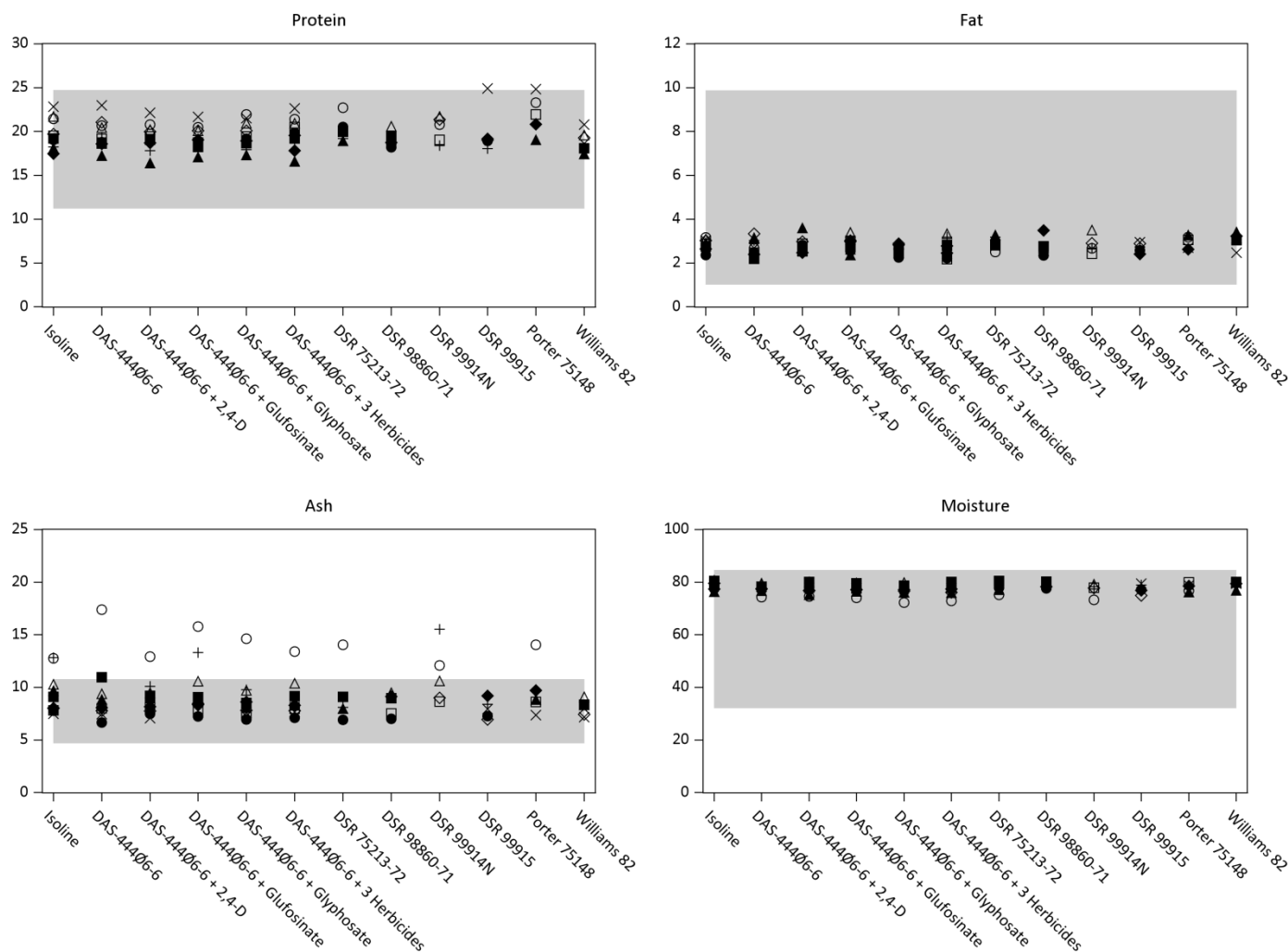


Figure 1.

Proximate and fiber (% dry weight for all proximate and fiber except moisture (% fresh weight)) in non-transgenic (Isoline), Event DAS-44406-6, and reference line soybean forage. Symbols for each location shown: open circle = GA, × = IA1, + = IA2, open triangle = IL1, open square = IL2, open diamond = IN, filled circle = MI, filled triangle = MO, filled square = NE1, filled diamond = NE2. Literature range is shaded for each analyte.

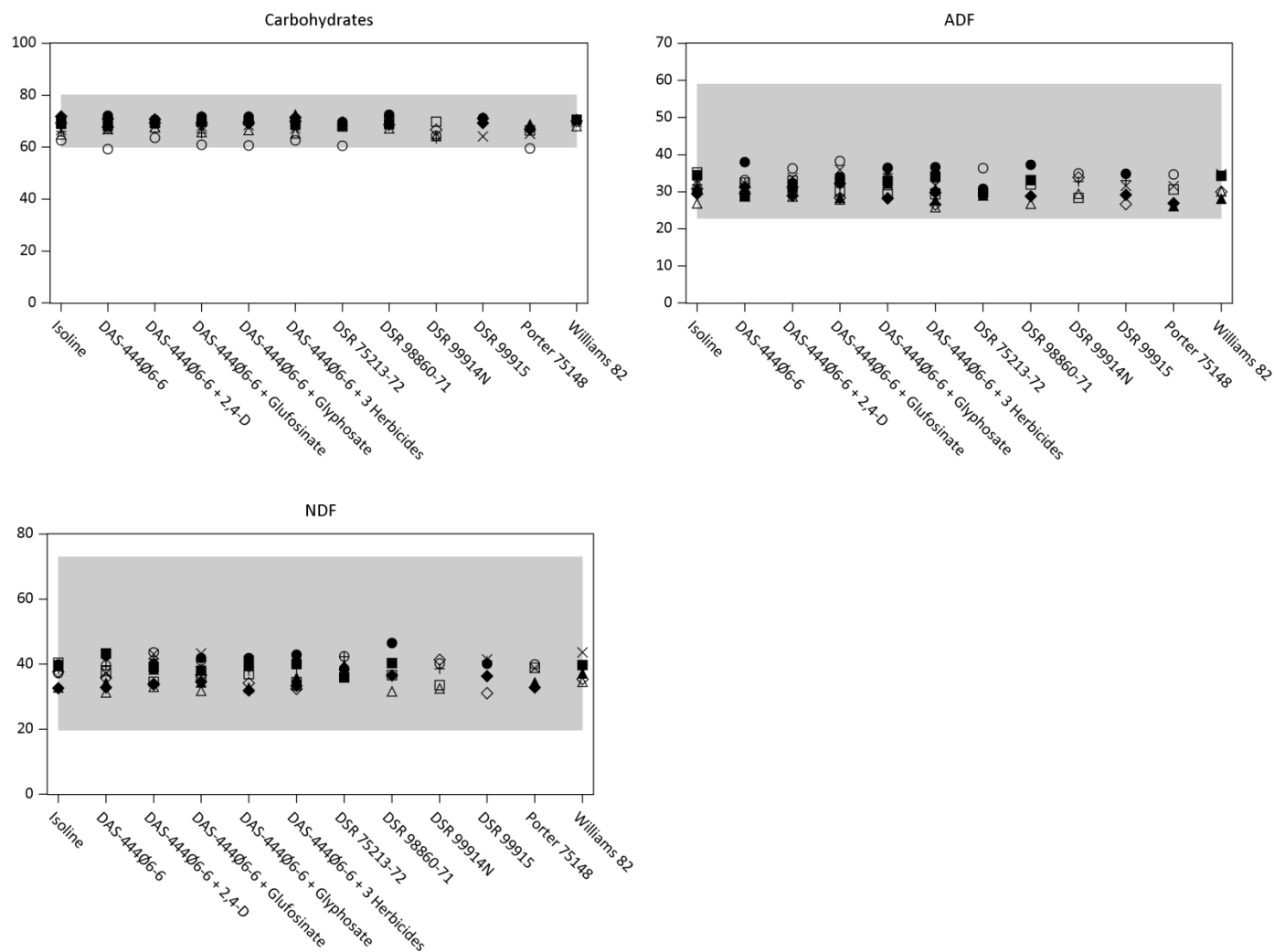


Figure 1 (Cont).

Proximate and fiber (% dry weight for all proximate and fiber except moisture (% fresh weight)) in non-transgenic (Isoline), Event DAS-44406-6, and reference line soybean forage. Symbols for each location shown: open circle = GA, x = IA1, + = IA2, open triangle = IL1, open square = IL2, open diamond = IN, filled circle = MI, filled triangle = MO, filled square = NE1, filled diamond = NE2. Literature range is shaded for each analyte.

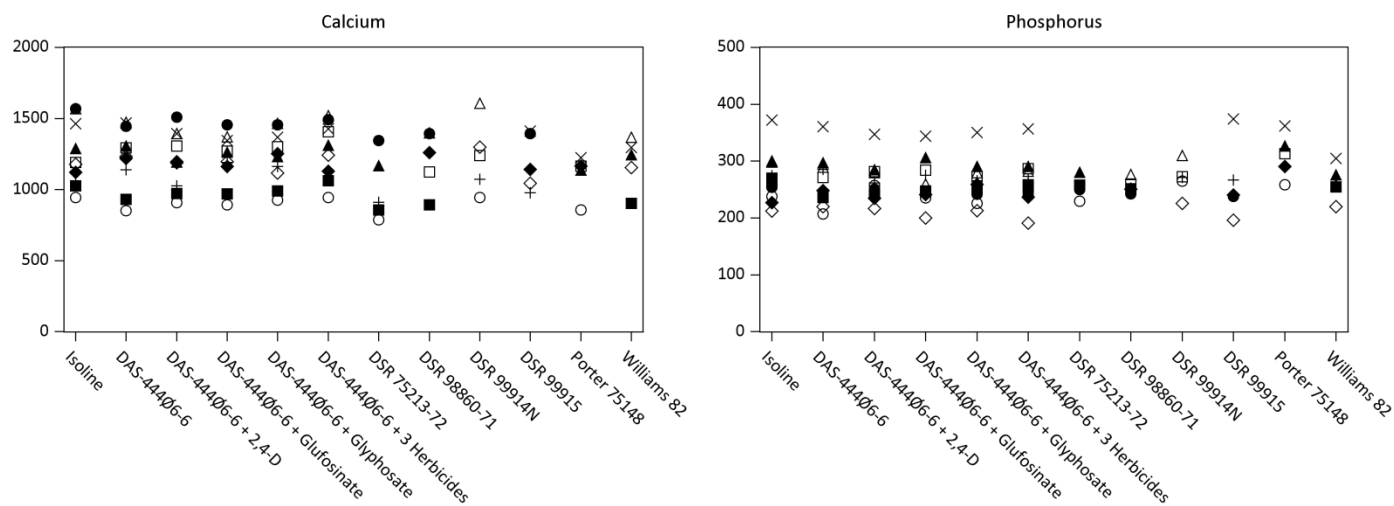


Figure 2.

Minerals (mg/100g dry weight) in non-transgenic (Isoline), Event DAS-44406-6, and reference line soybean forage. Symbols for each location shown: open circle = GA, × = IA1, + = IA2, open triangle = IL1, open square = IL2, open diamond = IN, filled circle = MI, filled triangle = MO, filled square = NE1, filled diamond = NE2. Literature range is shaded for each analyte (when available).

### Proximate and Fiber Analysis of Seed

Soybean seed samples from the control, reference, and DAS-444Ø6-6 entries were analyzed for proximate content (protein, fat, ash, moisture, and carbohydrates) and fiber (acid detergent fiber (ADF), neutral detergent fiber (NDF), and total dietary fiber). A summary of the results across all locations is presented in Table 12 and Figure 3. All mean results were within literature ranges (when available) and within ranges for reference lines included in the study. Statistically significant overall treatment effects were found for protein and carbohydrates, where some DAS-444Ø6-6 entries contained more protein and less carbohydrate than the control. Similarly, variations in fat, ash, and moisture were also observed for some pair-wise contrasts between DAS-444Ø6-6 entries and the control. Carbohydrate composition is calculated from values for protein, fat, ash, and moisture (Table 12). Therefore, an increase in protein and related proximate components is expected to result in a partial decrease in carbohydrates. Statistical differences were also found for neutral detergent fiber (NDF) and total dietary fiber, where values were negligibly lower in some DAS-444Ø6-6 entries compared with the control. No biologically meaningful differences were detected as all results for proximate content and fiber were within literature ranges and within ranges for reference lines included in the study.

Table 12. Summary of the proximate and fiber analysis of DAS-44406-6 soybean seed from all sites, and associated literature range.

Analytical Component (Units) <sup>a</sup>	Overall Trt Effect (Pr > F) <sup>b</sup>	Isoline Mean ± SE Min - Max	DAS-44406-6 unsprayed Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ 2,4-D Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ Glufosinate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ Glyphosate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ Three Herbicides Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	Reference Range Min - Max	Combined Literature Range <sup>d</sup> Min - Max
<b>Proximate</b>									
Protein (% DW)	<b>0.039</b>	37.8 ± 0.3 29.7 - 40.3	38.0 ± 0.3 35.6 - 39.7 (0.323, 0.537)	38.5 ± 0.3 37.1 - 40.4 ( <b>0.012</b> , 0.065)	38.2 ± 0.3 34 - 40.6 (0.106, 0.279)	38.2 ± 0.3 36 - 40.9 (0.086, 0.246)	38.6 ± 0.3 36.1 - 42.5 ( <b>0.002</b> , <b>0.019</b> )	35.1 - 44.9	32 - 48.4
Fat (% DW)	0.069	18.9 ± 0.6 13.6 - 23.5	19.5 ± 0.6 16.9 - 23.5 ( <b>0.003</b> , <b>0.023</b> )	19.2 ± 0.6 15.8 - 23.4 (0.152, 0.346)	19.3 ± 0.6 16.7 - 23.4 ( <b>0.028</b> , 0.109)	19.2 ± 0.6 16.5 - 23.1 (0.144, 0.333)	19.1 ± 0.6 16.2 - 22.6 (0.246, 0.453)	15.3 - 22.9	8.104 - 24.7
Ash (% DW)	0.278	5.15 ± 0.09 4.49 - 5.86	5.23 ± 0.09 4.66 - 6.34 (0.060, 0.188)	5.24 ± 0.09 4.59 - 5.99 ( <b>0.035</b> , 0.128)	5.24 ± 0.09 4.55 - 6.87 ( <b>0.041</b> , 0.140)	5.21 ± 0.09 4.49 - 5.78 (0.158, 0.357)	5.22 ± 0.09 4.48 - 6.42 (0.128, 0.303)	4.45 - 6.3	3.885 - 6.994
Moisture (% FW)	0.072	10.6 ± 0.7 7.58 - 20.4	10.2 ± 0.7 7.1 - 22.1 (0.160, 0.358)	10.0 ± 0.7 7.19 - 13.8 ( <b>0.026</b> , 0.104)	9.9 ± 0.7 6.54 - 14.1 ( <b>0.018</b> , 0.085)	9.9 ± 0.7 7.13 - 14.5 ( <b>0.010</b> , 0.059)	9.9 ± 0.7 6.87 - 12.9 ( <b>0.010</b> , 0.060)	7.26 - 17.2	4.7 - 34.4
Carbohydrates <sup>e</sup> (% DW)	<b>0.002</b>	38.13 ± 0.75 32.6 - 47.7	37.22 ± 0.76 32.5 - 40.8 ( <b>0.002</b> , <b>0.014</b> )	37.11 ± 0.75 31.3 - 41.3 ( <b>&lt;0.001</b> , <b>0.005</b> )	37.21 ± 0.75 31.2 - 40.6 ( <b>0.001</b> , <b>0.012</b> )	37.38 ± 0.75 32.1 - 41.5 ( <b>0.008</b> , <b>0.049</b> )	37.04 ± 0.75 32.2 - 40.7 ( <b>&lt;0.001</b> , <b>0.002</b> )	28.7 - 43	29.3 - 50.2
<b>Fiber</b>									
Acid Detergent Fiber (ADF) (% DW)	0.577	15.5 ± 0.5 9.84 - 24.1	15.2 ± 0.5 7.68 - 20.7 (0.435, 0.648)	15.5 ± 0.5 8.71 - 18.7 (0.911, 0.966)	15.0 ± 0.5 10.3 - 18.2 (0.284, 0.491)	15.6 ± 0.5 11.7 - 19.6 (0.940, 0.976)	14.9 ± 0.5 11.3 - 20.3 (0.174, 0.372)	8.02 - 20.9	7.81 - 26.26
Neutral Detergent Fiber (NDF) (% DW)	<b>0.030</b>	17.7 ± 0.3 14.6 - 24.1	17.0 ± 0.3 9.41 - 20.9 (0.088, 0.249)	17.1 ± 0.3 10.9 - 21.4 (0.111, 0.284)	16.7 ± 0.3 13.1 - 20.1 ( <b>0.012</b> , 0.065)	17.3 ± 0.3 13.2 - 22 (0.317, 0.535)	16.5 ± 0.3 13.4 - 19.7 ( <b>0.002</b> , <b>0.014</b> )	13.3 - 22.2	8.53 - 23.90
Total Dietary Fiber (% DW)	0.144	22.4 ± 0.5 16.7 - 27.8	21.6 ± 0.5 18 - 25.4 ( <b>0.048</b> , 0.159)	21.7 ± 0.5 17.9 - 26.1 (0.092, 0.256)	21.5 ± 0.5 17.3 - 26.5 ( <b>0.033</b> , 0.120)	21.9 ± 0.5 16.9 - 25.8 (0.252, 0.458)	21.4 ± 0.5 16 - 25.6 ( <b>0.012</b> , 0.065)	16.2 - 27.7	NR

Abbreviations: NA (Not Available) = analysis not performed, majority of data was < LOQ (Limit of Quantitation); ND (Not Detected) = < LOQ; NR = Not Reported.

<sup>a</sup> Unit of measure was not converted prior to analysis.

<sup>b</sup> Overall treatment effect estimated using an F-test.

<sup>c</sup> Comparison to the control using t-tests (P-value); P-values adjusted (Adj. P) using a False Discovery Rate (FDR) procedure; P-values < 0.05 were considered significant.

<sup>d</sup> Combined range from Appendix B.

<sup>e</sup> % Carbohydrates = 100 % - (% Protein + % Fat + % Ash + % Moisture)

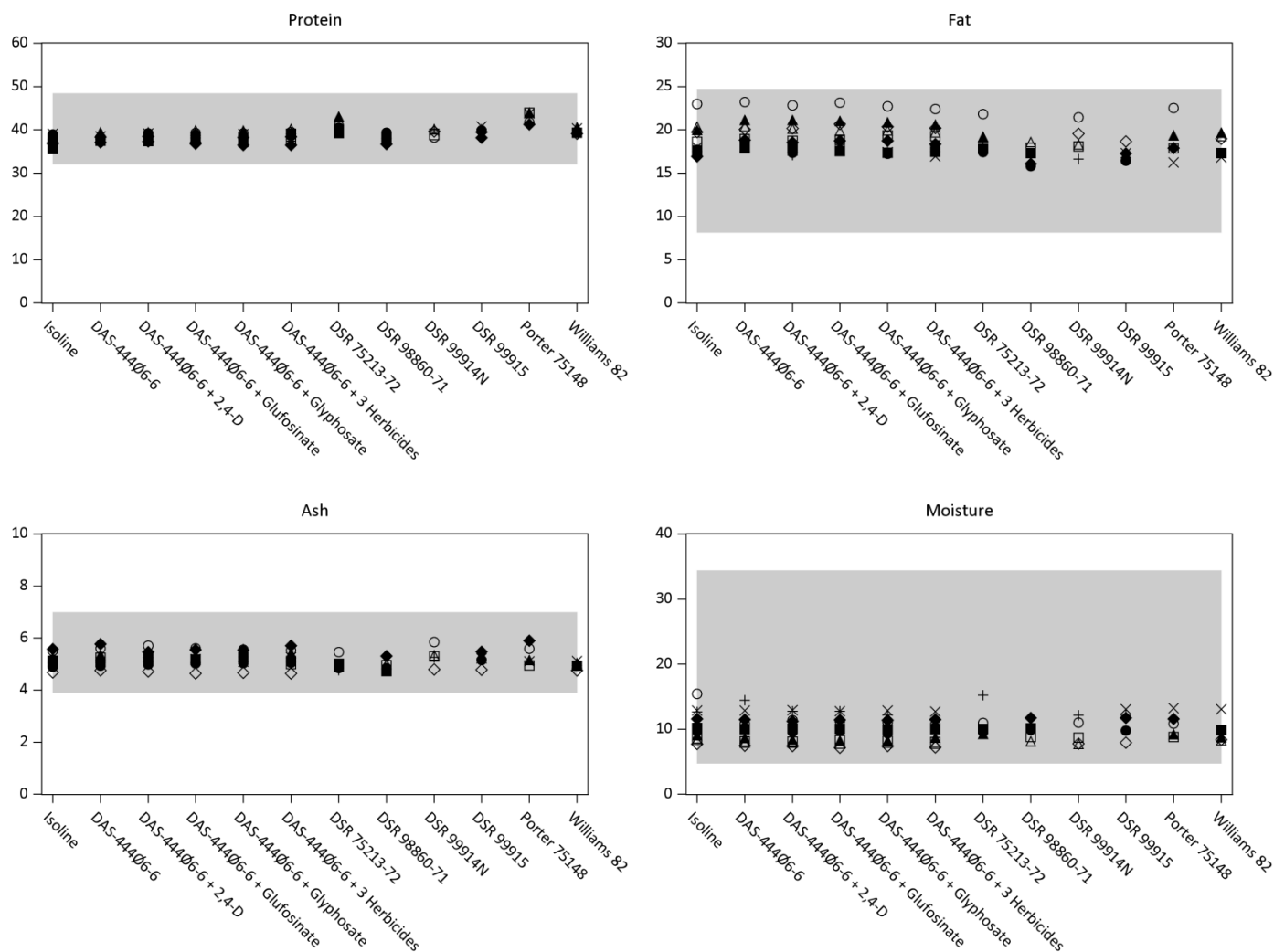


Figure 3. Proximate and fiber (% dry weight for all proximate and fiber except moisture (% fresh weight)) in non-transgenic (Isoline), Event DAS-44406-6, and reference line soybean seed. Symbols for each location shown: open circle = GA, x = IA1, + = IA2, open triangle = IL1, open square = IL2, open diamond = IN, filled circle = MI, filled triangle = MO, filled square = NE1, filled diamond = NE2. Literature range is shaded for each analyte (when available).

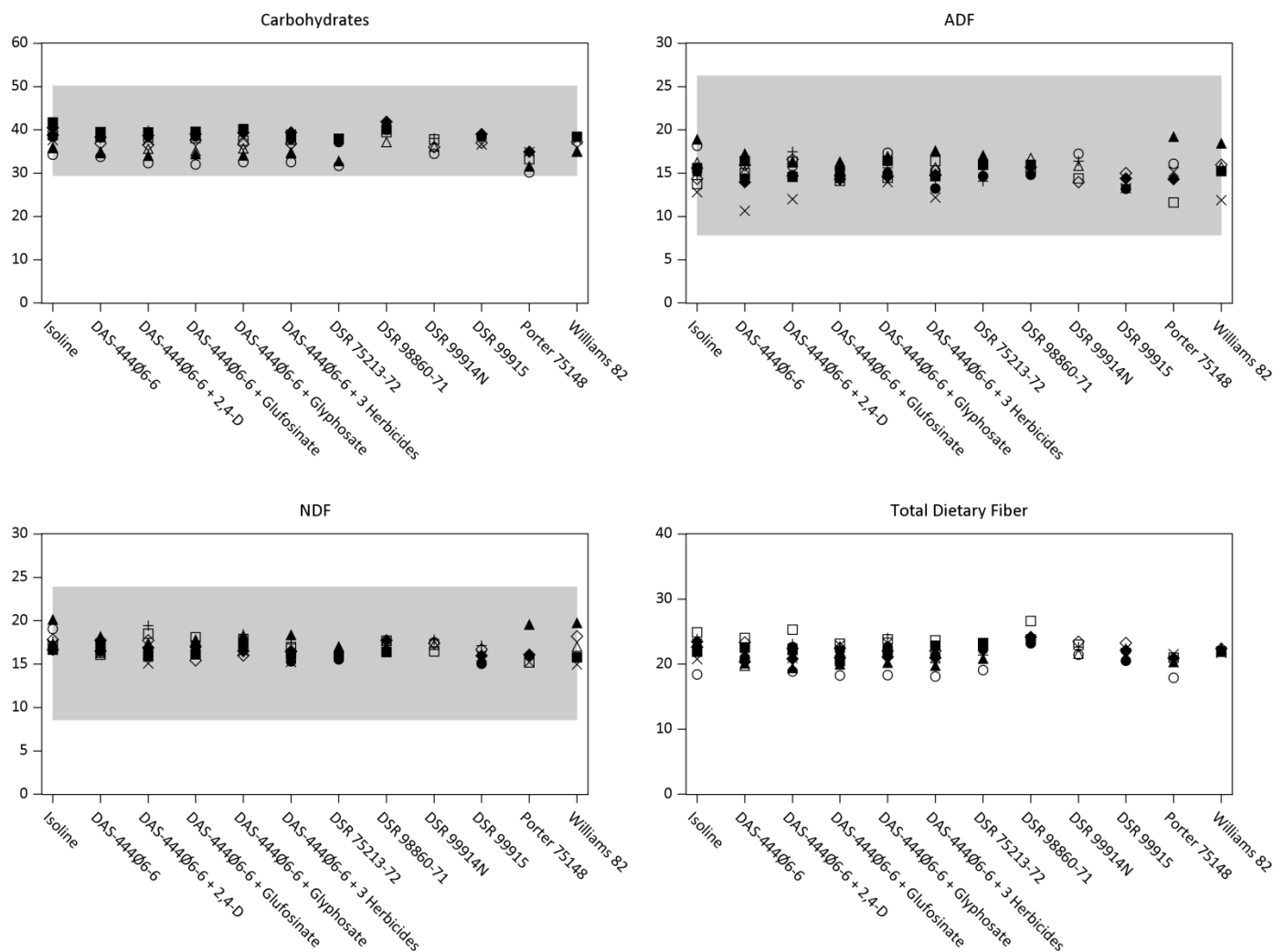


Figure 3 (Cont).

Proximate and fiber (% dry weight for all proximate and fiber except moisture (% fresh weight)) in non-transgenic (Isoline), Event DAS-44406-6, and reference line soybean seed. Symbols for each location shown: open circle = GA, x = IA1, + = IA2, open triangle = IL1, open square = IL2, open diamond = IN, filled circle = MI, filled triangle = MO, filled square = NE1, filled diamond = NE2. Literature range is shaded for each analyte (when available).



### Mineral Analysis of Seed

Soybean seed samples from the control, reference, and DAS-444Ø6-6 entries were analyzed for minerals (calcium, copper, iron, magnesium, manganese, phosphorus, potassium, selenium, sodium, and zinc). A summary of the results across all locations is presented in Table 13 and Figure 4. All mean results were within literature ranges (when available) and/or within ranges for reference lines included in the study. For sodium, statistical analysis was not performed since greater than 50% of the samples were found to be below the LOQ. No statistical differences were observed in the combined-site analysis between the control and DAS-444Ø6-6 entries for copper, iron, magnesium, manganese, phosphorus, and selenium. Statistically significant differences were observed for calcium, potassium, and zinc for some DAS-444Ø6-6 entries compared with the control, where mean differences were negligible and not biologically meaningful as means were within literature ranges and/or within ranges for reference lines included in the study.

Table 13. Summary of the mineral analysis of DAS-44406-6 soybean seed from all sites, and associated literature range.

Analytical Component (Units) <sup>a</sup>	Overall Trt Effect (Pr > F) <sup>b</sup>	Isoline Mean ± SE Min - Max	DAS-44406-6 unsprayed Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ 2,4-D Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ Glufosinate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ Glyphosate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ Three Herbicides Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	Reference Range Min - Max	Combined Literature Range <sup>d</sup> Min - Max
<b>Mineral</b>									
Calcium (mg/100 g DW)	<0.001	301 ± 13 235 - 403	324 ± 13 261 - 425 (<0.001, <0.001)	318 ± 13 252 - 404 (<0.001, 0.001)	304 ± 13 241 - 398 (0.407, 0.623)	320 ± 13 249 - 413 (<0.001, <0.001)	306 ± 13 243 - 404 (0.184, 0.381)	174 - 383	116.55 - 510
Copper (mg/100 g DW)	0.310	1.32 ± 0.05 0.995 - 1.68	1.34 ± 0.05 1.01 - 1.71 (0.222, 0.436)	1.35 ± 0.05 1.03 - 1.93 (0.057, 0.182)	1.32 ± 0.05 1.04 - 1.74 (0.780, 0.901)	1.35 ± 0.05 1.15 - 1.7 (0.082, 0.242)	1.33 ± 0.05 1.09 - 1.71 (0.324, 0.537)	0.91 - 1.77	0.632 - 1.092
Iron (mg/100 g DW)	0.650	8.2 ± 0.5 6.51 - 14.2	8.3 ± 0.6 6.33 - 26.2 (0.906, 0.963)	7.7 ± 0.5 6.18 - 9.64 (0.395, 0.609)	8.6 ± 0.5 6.55 - 41.9 (0.547, 0.729)	7.8 ± 0.5 6.42 - 12.3 (0.537, 0.725)	8.5 ± 0.5 6.54 - 24.5 (0.674, 0.822)	5.35 - 87.9	3.734 - 10.954
Magnesium (mg/100 g DW)	0.226	229 ± 6 207 - 279	231 ± 6 205 - 283 (0.281, 0.490)	230 ± 6 206 - 287 (0.331, 0.543)	227 ± 6 202 - 276 (0.285, 0.491)	230 ± 6 203 - 279 (0.347, 0.554)	229 ± 6 200 - 284 (0.974, 0.985)	195 - 317	219.40 - 312.84
Manganese (mg/100 g DW)	0.620	2.99 ± 0.53 2.11 - 7.83	3.10 ± 0.54 1.69 - 8.27 (0.483, 0.695)	3.27 ± 0.53 1.78 - 10.4 (0.084, 0.243)	3.09 ± 0.53 2.03 - 8.57 (0.532, 0.725)	3.18 ± 0.53 1.89 - 10.8 (0.231, 0.443)	3.14 ± 0.53 2.08 - 9.46 (0.335, 0.548)	1.9 - 9.53	2.52 - 3.876
Phosphorus (mg/100 g DW)	0.856	557 ± 21 400 - 640	561 ± 21 394 - 661 (0.474, 0.690)	558 ± 21 384 - 681 (0.905, 0.963)	554 ± 21 377 - 657 (0.526, 0.723)	558 ± 21 403 - 645 (0.935, 0.976)	557 ± 21 388 - 660 (0.866, 0.949)	360 - 659	506.74 - 935.24
Potassium (mg/100 g DW)	<0.001	1730 ± 20 1580 - 1850	1780 ± 20 1610 - 1930 (<0.001, <0.001)	1790 ± 20 1640 - 1940 (<0.001, <0.001)	1770 ± 20 1630 - 1930 (<0.001, 0.002)	1770 ± 20 1620 - 1890 (<0.001, 0.005)	1770 ± 20 1610 - 1940 (0.001, 0.011)	1530 - 2030	1868.01 - 2510
Selenium (ppb DW)	0.552	451 ± 108 66.7 - 1980	438 ± 108 77.7 - 1770 (0.831, 0.934)	489 ± 108 63.8 - 2320 (0.496, 0.707)	389 ± 108 77 - 1770 (0.278, 0.488)	420 ± 108 84 - 1670 (0.592, 0.767)	469 ± 108 72.3 - 2360 (0.741, 0.885)	59.5 - 3380	NR

Abbreviations: NA (Not Available) = analysis not performed, majority of data was < LOQ (Limit of Quantitation); ND (Not Detected) = < LOQ; NR = Not Reported.

<sup>a</sup> Unit of measure was not converted prior to analysis.

<sup>b</sup> Overall treatment effect estimated using an F-test.

<sup>c</sup> Comparison to the control using t-tests (P-value); P-values adjusted (Adj. P) using a False Discovery Rate (FDR) procedure; P-values < 0.05 were considered significant.

<sup>d</sup> Combined range from Appendix B.

Table 13 (Cont). Summary of the mineral analysis of DAS-444Ø6-6 soybean seed from all sites, and associated literature range.

Analytical Component (Units) <sup>a</sup>	Overall Trt Effect (Pr > F) <sup>b</sup>	Isoline Mean ± SE Min - Max	DAS-444Ø6-6 unsprayed Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-444Ø6-6 sprayed w/ 2,4-D Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-444Ø6-6 sprayed w/ Glufosinate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-444Ø6-6 sprayed w/ Glyphosate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-444Ø6-6 sprayed w/ Three Herbicides Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	Reference Range Min - Max	Combined Literature Range <sup>d</sup> Min - Max
<b>Mineral</b>									
Sodium (mg/100 g DW)	NA	NA < LOQ	NA < LOQ - 15.7	NA < LOQ - 15	NA < LOQ - 16.7	NA < LOQ - 13.4	NA < LOQ - 11.7	< LOQ - 18.5	4.05 - 30
Zinc (mg/100 g DW)	0.077	4.17 ± 0.12 3.62 - 4.7	4.34 ± 0.12 3.45 - 5.02 ( <b>0.010</b> , 0.058)	4.34 ± 0.12 3.53 - 5.59 ( <b>0.010</b> , 0.058)	4.25 ± 0.12 3.62 - 5.01 (0.205, 0.414)	4.3 ± 0.12 3.56 - 5.05 ( <b>0.036</b> , 0.128)	4.3 ± 0.12 3.67 - 6.01 ( <b>0.042</b> , 0.143)	3.34 - 5.82	4.98 - 7.578

Abbreviations: NA (Not Available) = analysis not performed, majority of data was < LOQ (Limit of Quantitation); ND (Not Detected) = < LOQ; NR = Not Reported.

<sup>a</sup> Unit of measure was not converted prior to analysis.

<sup>b</sup> Overall treatment effect estimated using an F-test.

<sup>c</sup> Comparison to the control using t-tests (P-value); P-values adjusted (Adj. P) using a False Discovery Rate (FDR) procedure; P-values < 0.05 were considered significant.

<sup>d</sup> Combined range from Appendix B.

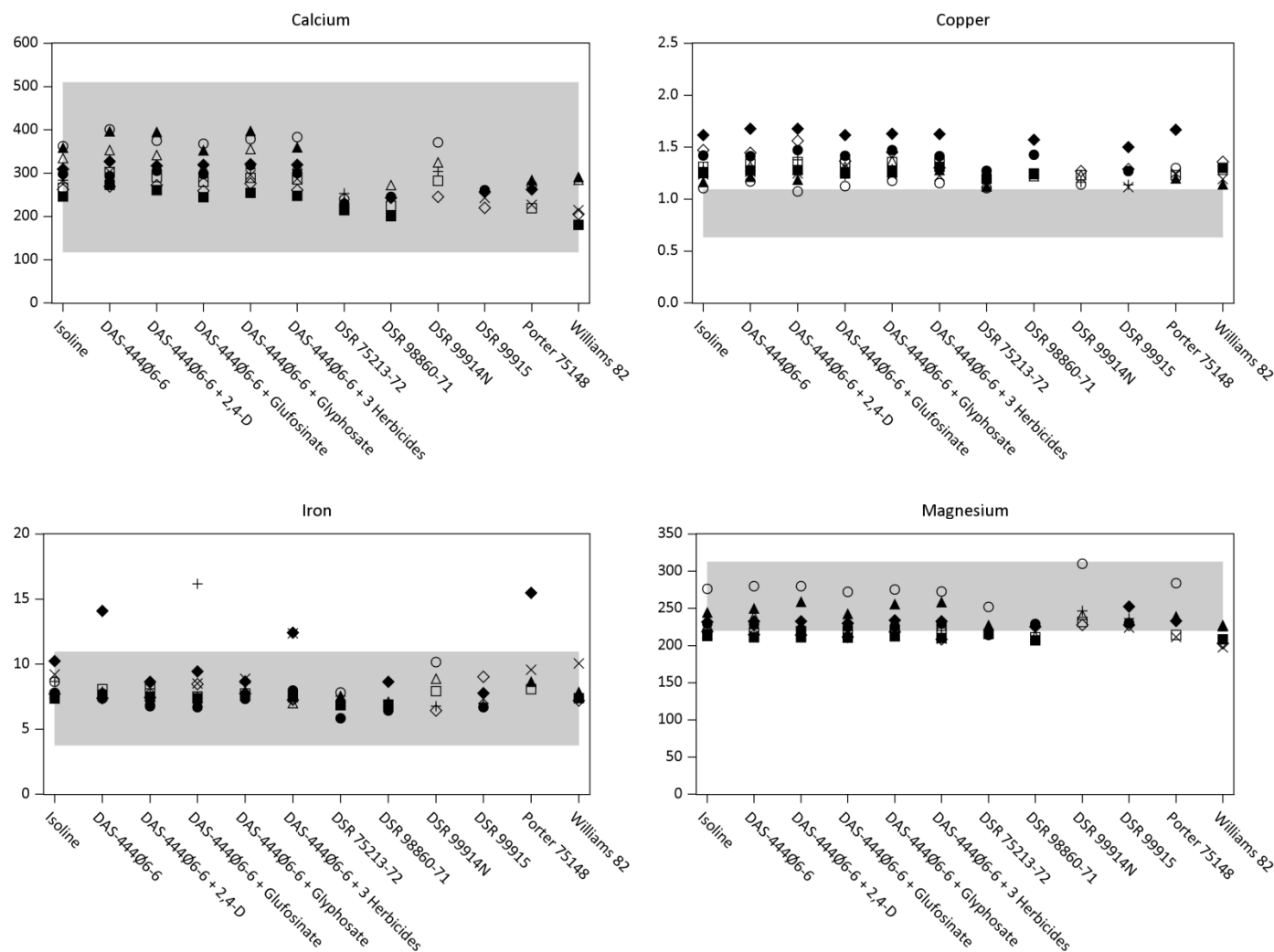


Figure 4.

Minerals (mg/100g dry weight for all minerals except selenium (ppb dry weight)) in non-transgenic (Isoline), Event DAS-44406-6, and reference line soybean seed. Symbols for each location shown: open circle = GA, x = IA1, + = IA2, open triangle = IL1, open square = IL2, open diamond = IN, filled circle = MI, filled triangle = MO, filled square = NE1, filled diamond = NE2. Literature range is shaded for each analyte (when available).

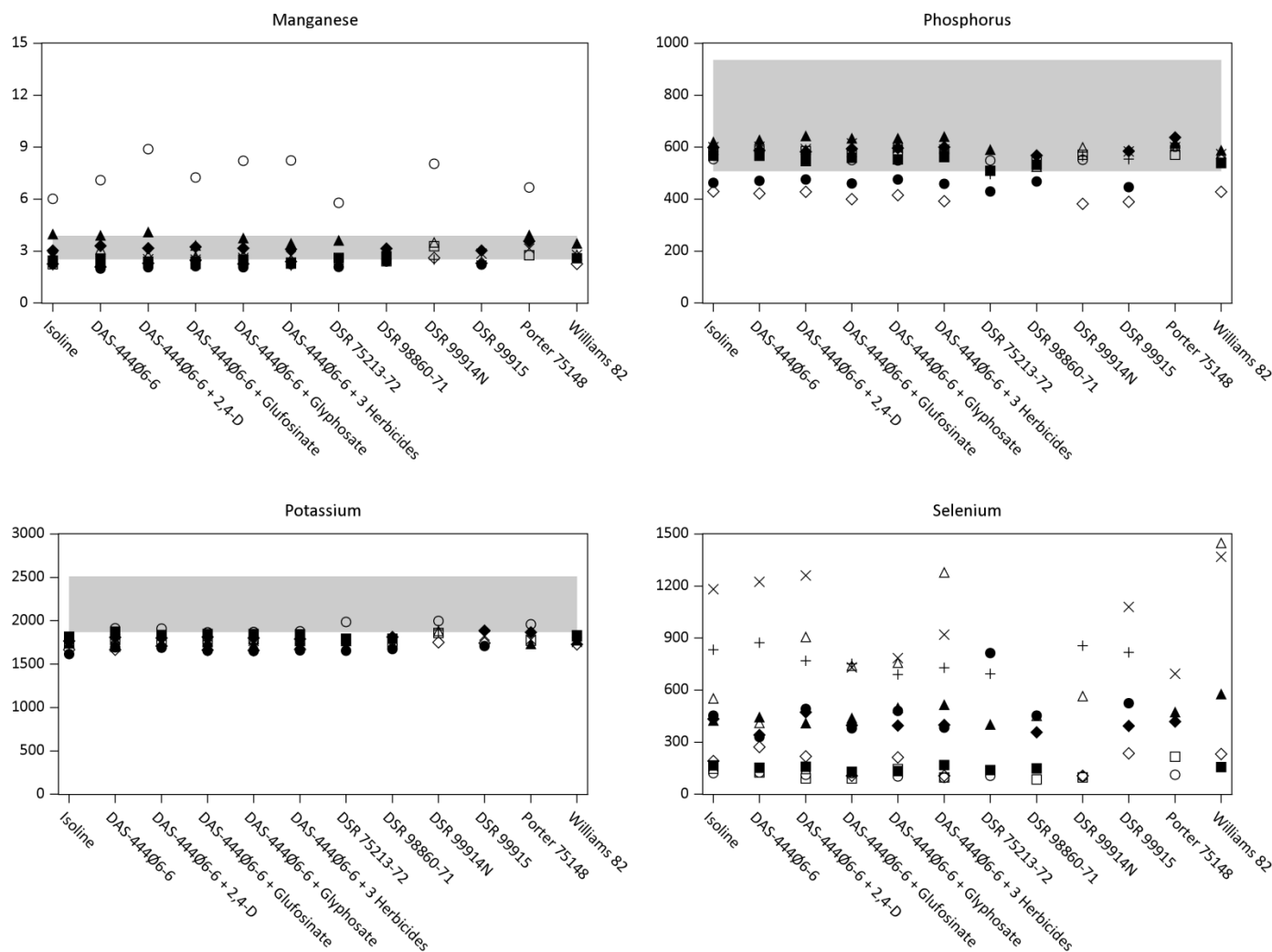


Figure 4 (Cont).

Minerals (mg/100g dry weight for all minerals except selenium (ppb dry weight)) in non-transgenic (Isoline), Event DAS-44406-6, and reference line soybean seed. Symbols for each location shown: open circle = GA, x = IA1, + = IA2, open triangle = IL1, open square = IL2, open diamond = IN, filled circle = MI, filled triangle = MO, filled square = NE1, filled diamond = NE2. Literature range is shaded for each analyte (when available).

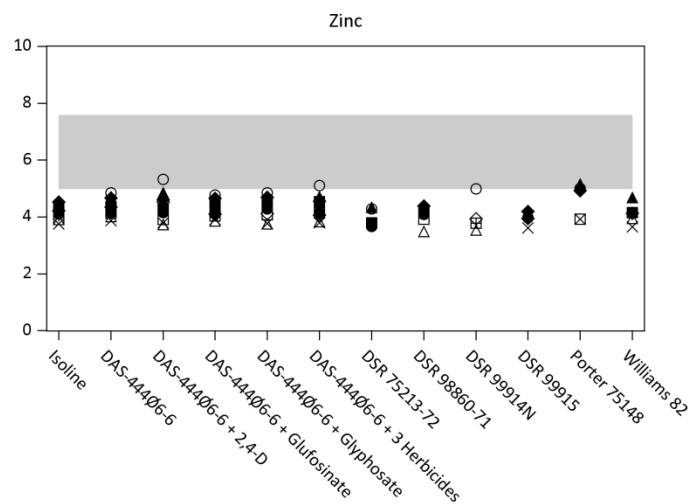


Figure 4 (Cont).

Minerals (mg/100g dry weight for all minerals except selenium (ppb dry weight)) in non-transgenic (Isoline), Event DAS-44406-6, and reference line soybean seed. Symbols for each location shown: open circle = GA, x = IA1, + = IA2, open triangle = IL1, open square = IL2, open diamond = IN, filled circle = MI, filled triangle = MO, filled square = NE1, filled diamond = NE2. Literature range is shaded for each analyte (when available).

### Amino Acid Analysis of Seed

Soybean seed samples from the control, reference, and DAS-444Ø6-6 entries were analyzed for amino acid content. A summary of the results across all locations is presented in Table 14 and Figure 5. All mean results were within literature ranges and within ranges for reference lines included in the study. No statistical differences were observed in the combined-site analysis between the control and DAS-444Ø6-6 entries for alanine, arginine, aspartic acid, glutamic acid, glycine, isoleucine, leucine, methionine, phenylalanine, proline, serine, threonine, and valine. Statistically significant differences were observed for cystine, histidine, lysine, tryptophan, and tyrosine for some DAS-444Ø6-6 entries compared with the control, where mean differences were negligible and not biologically meaningful as means were within literature ranges and within ranges for reference lines included in the study.

Table 14. Summary of the amino acid analysis of DAS-44406-6 soybean seed from all sites, and associated literature range.

Analytical Component (Units) <sup>a</sup>	Overall Trt Effect (Pr > F) <sup>b</sup>	Isoleucine Mean ± SE Min - Max	DAS-44406-6 unsprayed Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ 2,4-D Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ Glufosinate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ Glyphosate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ Three Herbicides Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	Reference Range Min - Max	Combined Literature Range <sup>d</sup> Min - Max
<b>Amino Acid</b>									
Alanine (% DW)	0.734	1.68 ± 0.01 1.56 - 1.76	1.67 ± 0.01 1.58 - 1.76 (0.282, 0.490)	1.67 ± 0.01 1.6 - 1.74 (0.453, 0.667)	1.68 ± 0.01 1.6 - 1.74 (0.980, 0.988)	1.67 ± 0.01 1.6 - 1.81 (0.616, 0.784)	1.68 ± 0.01 1.59 - 1.88 (0.763, 0.894)	1.55 - 1.9	1.43 - 2.10
Arginine (% DW)	0.440	2.74 ± 0.02 2.55 - 2.94	2.71 ± 0.02 2.46 - 2.88 (0.182, 0.378)	2.75 ± 0.02 2.6 - 2.95 (0.620, 0.786)	2.74 ± 0.02 2.6 - 2.99 (0.856, 0.949)	2.74 ± 0.02 2.55 - 3 (0.762, 0.894)	2.75 ± 0.02 2.58 - 3.16 (0.603, 0.776)	2.59 - 3.45	2.15 - 3.46
Aspartic Acid (% DW)	0.231	4.18 ± 0.03 3.85 - 4.45	4.19 ± 0.03 3.9 - 4.4 (0.959, 0.977)	4.23 ± 0.03 4.03 - 4.49 (0.093, 0.256)	4.22 ± 0.03 4.02 - 4.59 (0.165, 0.363)	4.22 ± 0.03 3.94 - 4.64 (0.168, 0.365)	4.24 ± 0.03 3.89 - 4.82 (0.055, 0.177)	3.58 - 4.94	3.81 - 6.04
Cystine (% DW)	<b>0.002</b>	0.532 ± 0.010 0.458 - 0.647	0.556 ± 0.010 0.493 - 0.661 ( <b>0.001, 0.011</b> )	0.547 ± 0.010 0.474 - 0.645 ( <b>0.032, 0.120</b> )	0.560 ± 0.010 0.489 - 0.672 ( <b>&lt;0.001, 0.002</b> )	0.549 ± 0.010 0.482 - 0.652 ( <b>0.015, 0.075</b> )	0.560 ± 0.010 0.487 - 0.66 ( <b>&lt;0.001, 0.002</b> )	0.429 - 0.71	0.37 - 0.81
Glutamic Acid (% DW)	0.837	6.26 ± 0.06 5.75 - 6.74	6.22 ± 0.06 5.65 - 6.78 (0.429, 0.646)	6.26 ± 0.06 5.82 - 6.76 (0.960, 0.977)	6.27 ± 0.06 5.8 - 6.95 (0.709, 0.851)	6.26 ± 0.06 5.85 - 6.92 (0.964, 0.978)	6.28 ± 0.06 5.74 - 7.18 (0.602, 0.776)	5.85 - 7.77	5.84 - 9.15
Glycine (% DW)	0.592	1.64 ± 0.01 1.53 - 1.75	1.63 ± 0.01 1.51 - 1.73 (0.511, 0.720)	1.65 ± 0.01 1.58 - 1.73 (0.378, 0.591)	1.64 ± 0.01 1.55 - 1.75 (0.761, 0.894)	1.65 ± 0.01 1.56 - 1.84 (0.391, 0.607)	1.65 ± 0.01 1.54 - 1.87 (0.434, 0.648)	1.55 - 1.89	1.41 - 2.00
Histidine (% DW)	0.299	1.02 ± 0.01 0.943 - 1.1	1.02 ± 0.01 0.91 - 1.1 (0.945, 0.976)	1.04 ± 0.01 0.957 - 1.11 ( <b>0.045, 0.152</b> )	1.02 ± 0.01 0.964 - 1.13 (0.896, 0.960)	1.03 ± 0.01 0.935 - 1.17 (0.551, 0.730)	1.03 ± 0.01 0.946 - 1.19 (0.669, 0.819)	0.197 - 1.18	0.86 - 1.24
Isoleucine (% DW)	0.458	1.81 ± 0.02 1.66 - 1.94	1.81 ± 0.02 1.64 - 1.94 (0.815, 0.928)	1.83 ± 0.02 1.67 - 2.02 (0.108, 0.281)	1.81 ± 0.02 1.58 - 1.93 (0.608, 0.778)	1.83 ± 0.02 1.68 - 2.12 (0.116, 0.291)	1.82 ± 0.02 1.64 - 2.06 (0.421, 0.639)	1.68 - 2.18	1.49 - 2.08

Abbreviations: NA (Not Available) = analysis not performed, majority of data was < LOQ (Limit of Quantitation); ND (Not Detected) = < LOQ; NR = Not Reported.

<sup>a</sup> Unit of measure was not converted prior to analysis.

<sup>b</sup> Overall treatment effect estimated using an F-test.

<sup>c</sup> Comparison to the control using t-tests (P-value); P-values adjusted (Adj. P) using a False Discovery Rate (FDR) procedure; P-values < 0.05 were considered significant.

<sup>d</sup> Combined range from Appendix B.



Table 14 (Cont). Summary of the amino acid analysis of DAS-44406-6 soybean seed from all sites, and associated literature range.

Analytical Component (Units) <sup>a</sup>	Overall Trt Effect (Pr > F) <sup>b</sup>	Isoline Mean ± SE Min - Max	DAS-44406-6 unsprayed Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ 2,4-D Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ Glufosinate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ Glyphosate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ Three Herbicides Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	Reference Range Min - Max	Combined Literature Range <sup>d</sup> Min - Max
<b>Amino Acid</b>									
Leucine (% DW)	0.151	2.84 ± 0.02 2.65 - 3.02	2.83 ± 0.02 2.62 - 2.99 (0.522, 0.723)	2.87 ± 0.02 2.72 - 3.06 (0.059, 0.186)	2.85 ± 0.02 2.67 - 3.06 (0.483, 0.695)	2.86 ± 0.02 2.69 - 3.2 (0.209, 0.418)	2.86 ± 0.02 2.67 - 3.25 (0.255, 0.460)	2.68 - 3.32	2.2 - 4.0
Lysine (% DW)	0.369	2.46 ± 0.03 2.1 - 2.77	2.48 ± 0.03 2.11 - 2.76 (0.522, 0.723)	2.53 ± 0.03 2.14 - 2.76 (0.029, 0.111)	2.48 ± 0.03 2.22 - 2.8 (0.502, 0.713)	2.49 ± 0.03 2.06 - 2.97 (0.344, 0.554)	2.49 ± 0.03 2.12 - 3.03 (0.320, 0.535)	2 - 3.04	2.19 - 3.32
Methionine (% DW)	0.873	0.504 ± 0.006 0.447 - 0.577	0.502 ± 0.006 0.435 - 0.595 (0.821, 0.931)	0.505 ± 0.006 0.449 - 0.567 (0.922, 0.970)	0.501 ± 0.006 0.456 - 0.555 (0.694, 0.838)	0.499 ± 0.006 0.445 - 0.564 (0.450, 0.666)	0.507 ± 0.006 0.442 - 0.621 (0.647, 0.804)	0.418 - 0.596	0.39 - 0.68
Phenylalanine (% DW)	0.471	1.9 ± 0.02 1.76 - 2.04	1.89 ± 0.02 1.72 - 2.02 (0.633, 0.795)	1.91 ± 0.02 1.8 - 2.04 (0.248, 0.454)	1.9 ± 0.02 1.77 - 2.05 (0.622, 0.786)	1.91 ± 0.02 1.77 - 2.13 (0.356, 0.567)	1.91 ± 0.02 1.77 - 2.18 (0.225, 0.439)	1.8 - 2.28	1.6 - 2.44
Proline (% DW)	0.986	1.96 ± 0.02 1.77 - 2.12	1.95 ± 0.02 1.81 - 2.13 (0.530, 0.725)	1.95 ± 0.02 1.84 - 2.09 (0.782, 0.901)	1.95 ± 0.02 1.67 - 2.12 (0.537, 0.725)	1.96 ± 0.02 1.76 - 2.19 (0.854, 0.949)	1.95 ± 0.02 1.77 - 2.34 (0.772, 0.899)	1.78 - 2.41	1.63 - 2.28
Serine (% DW)	0.264	1.79 ± 0.02 1.62 - 1.98	1.80 ± 0.02 1.58 - 1.96 (0.701, 0.843)	1.79 ± 0.02 1.62 - 1.97 (0.883, 0.956)	1.82 ± 0.02 1.62 - 2 (0.114, 0.290)	1.82 ± 0.02 1.64 - 1.97 (0.234, 0.443)	1.83 ± 0.02 1.6 - 2.1 (0.093, 0.256)	1.56 - 2.2	1.11 - 2.48
Threonine (% DW)	0.171	1.52 ± 0.01 1.43 - 1.58	1.51 ± 0.01 1.38 - 1.59 (0.374, 0.590)	1.52 ± 0.01 1.42 - 1.59 (0.524, 0.723)	1.52 ± 0.01 1.43 - 1.6 (0.487, 0.697)	1.53 ± 0.01 1.46 - 1.6 (0.205, 0.414)	1.53 ± 0.01 1.42 - 1.75 (0.109, 0.281)	1.4 - 1.75	1.14 - 1.89
Tryptophan (% DW)	0.091	0.574 ± 0.01 0.512 - 0.667	0.588 ± 0.01 0.521 - 0.739 (0.030, 0.112)	0.589 ± 0.01 0.515 - 0.676 (0.021, 0.092)	0.575 ± 0.01 0.512 - 0.641 (0.860, 0.949)	0.583 ± 0.01 0.505 - 0.699 (0.140, 0.325)	0.583 ± 0.01 0.517 - 0.645 (0.165, 0.363)	0.495 - 0.704	0.30 - 0.67

Abbreviations: NA (Not Available) = analysis not performed, majority of data was < LOQ (Limit of Quantitation); ND (Not Detected) = < LOQ; NR = Not Reported.

<sup>a</sup> Unit of measure was not converted prior to analysis.

<sup>b</sup> Overall treatment effect estimated using an F-test.

<sup>c</sup> Comparison to the control using t-tests (P-value); P-values adjusted (Adj. P) using a False Discovery Rate (FDR) procedure; P-values < 0.05 were considered significant.

<sup>d</sup> Combined range from Appendix B.

Table 14 (Cont). Summary of the amino acid analysis of DAS-44406-6 soybean seed from all sites, and associated literature range.

Analytical Component (Units) <sup>a</sup>	Overall Trt Effect (Pr > F) <sup>b</sup>	Isoline	DAS-444Ø6-6 unsprayed	DAS-444Ø6-6 sprayed w/ 2,4-D	DAS-444Ø6-6 sprayed w/ Glufosinate	DAS-444Ø6-6 sprayed w/ Glyphosate	DAS-444Ø6-6 sprayed w/ Three Herbicides	Reference Range	Combined Literature Range <sup>d</sup>
		Mean ± SE Min - Max	Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	Min - Max	Min - Max
Amino Acid									
Tyrosine (% DW)	0.148	1.44 ± 0.01 1.36 - 1.51	1.44 ± 0.01 1.35 - 1.52 (0.872, 0.953)	1.46 ± 0.01 1.39 - 1.54 (0.024, 0.098)	1.45 ± 0.01 1.38 - 1.55 (0.242, 0.449)	1.45 ± 0.01 1.38 - 1.61 (0.178, 0.377)	1.45 ± 0.01 1.35 - 1.62 (0.219, 0.432)	1.34 - 1.64	0.79 - 1.61
Valine (% DW)	0.737	1.85 ± 0.01 1.72 - 1.98	1.85 ± 0.01 1.71 - 1.96 (0.921, 0.970)	1.86 ± 0.01 1.68 - 2.03 (0.241, 0.449)	1.85 ± 0.01 1.61 - 1.96 (0.954, 0.976)	1.86 ± 0.01 1.71 - 2.14 (0.459, 0.670)	1.85 ± 0.01 1.7 - 2.01 (1.000, 1.000)	1.71 - 2.16	1.5 - 2.44

Abbreviations: NA (Not Available) = analysis not performed, majority of data was < LOQ (Limit of Quantitation); ND (Not Detected) = < LOQ; NR = Not Reported.

<sup>a</sup> Unit of measure was not converted prior to analysis.

<sup>b</sup> Overall treatment effect estimated using an F-test.

<sup>c</sup> Comparison to the control using t-tests (P-value); P-values adjusted (Adj. P) using a False Discovery Rate (FDR) procedure; P-values < 0.05 were considered significant.

<sup>d</sup> Combined range from Appendix B.

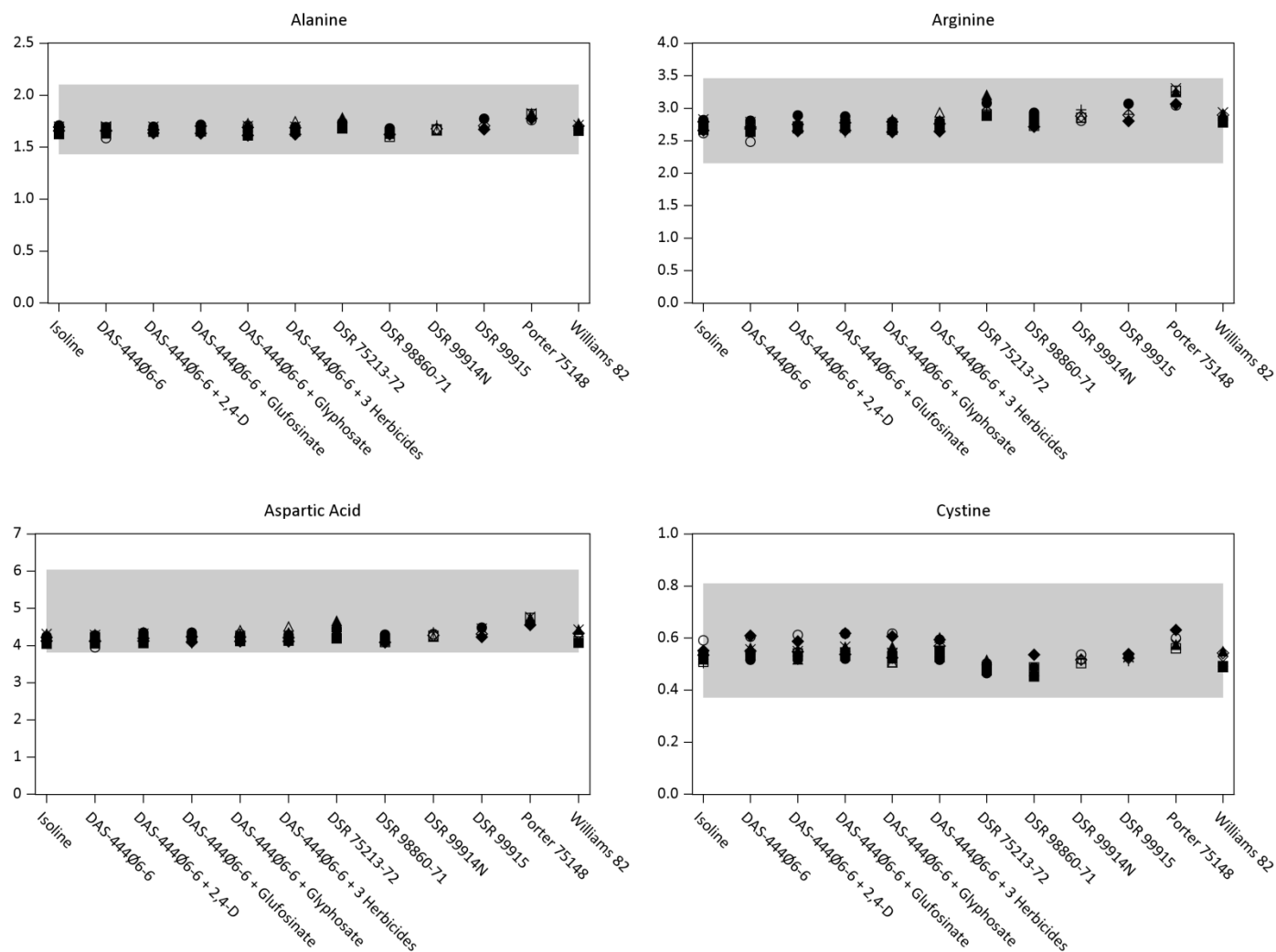


Figure 5. Amino acids (% dry weight) in non-transgenic (Isoline), Event DAS-44406-6, and reference line soybean seed. Symbols for each location shown: open circle = GA, x = IA1, + = IA2, open triangle = IL1, open square = IL2, open diamond = IN, filled circle = MI, filled triangle = MO, filled square = NE1, filled diamond = NE2. Literature range is shaded for each analyte.

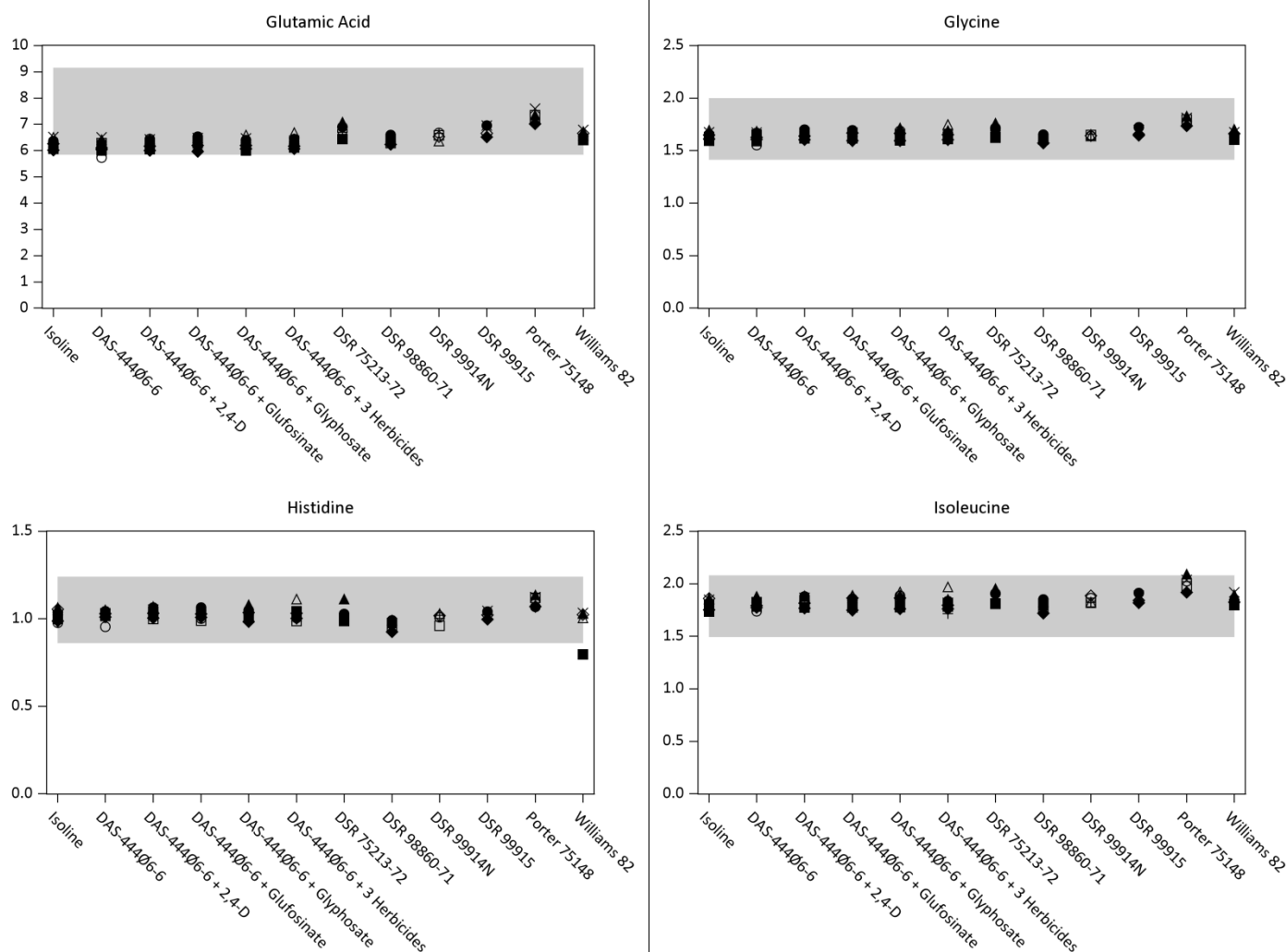


Figure 5 (Cont).

Amino acids (% dry weight) in non-transgenic (Isoline), Event DAS-44406-6, and reference line soybean seed. Symbols for each location shown: open circle = GA, × = IA1, + = IA2, open triangle = IL1, open square = IL2, open diamond = IN, filled circle = MI, filled triangle = MO, filled square = NE1, filled diamond = NE2. Literature range is shaded for each analyte.

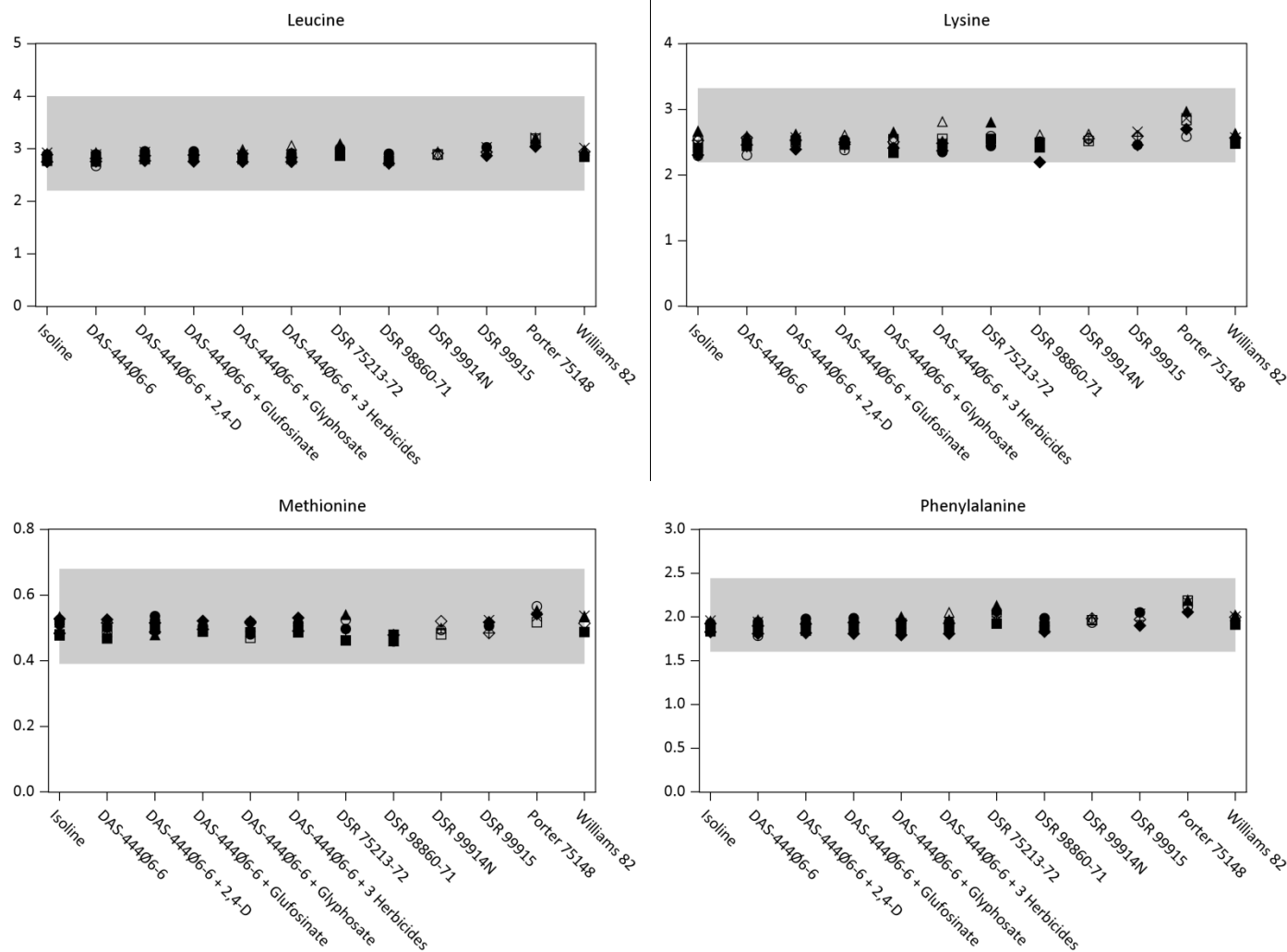


Figure 5 (Cont).

Amino acids (% dry weight) in non-transgenic (Isoline), Event DAS-44406-6, and reference line soybean seed. Symbols for each location shown: open circle = GA, × = IA1, + = IA2, open triangle = IL1, open square = IL2, open diamond = IN, filled circle = MI, filled triangle = MO, filled square = NE1, filled diamond = NE2. Literature range is shaded for each analyte.

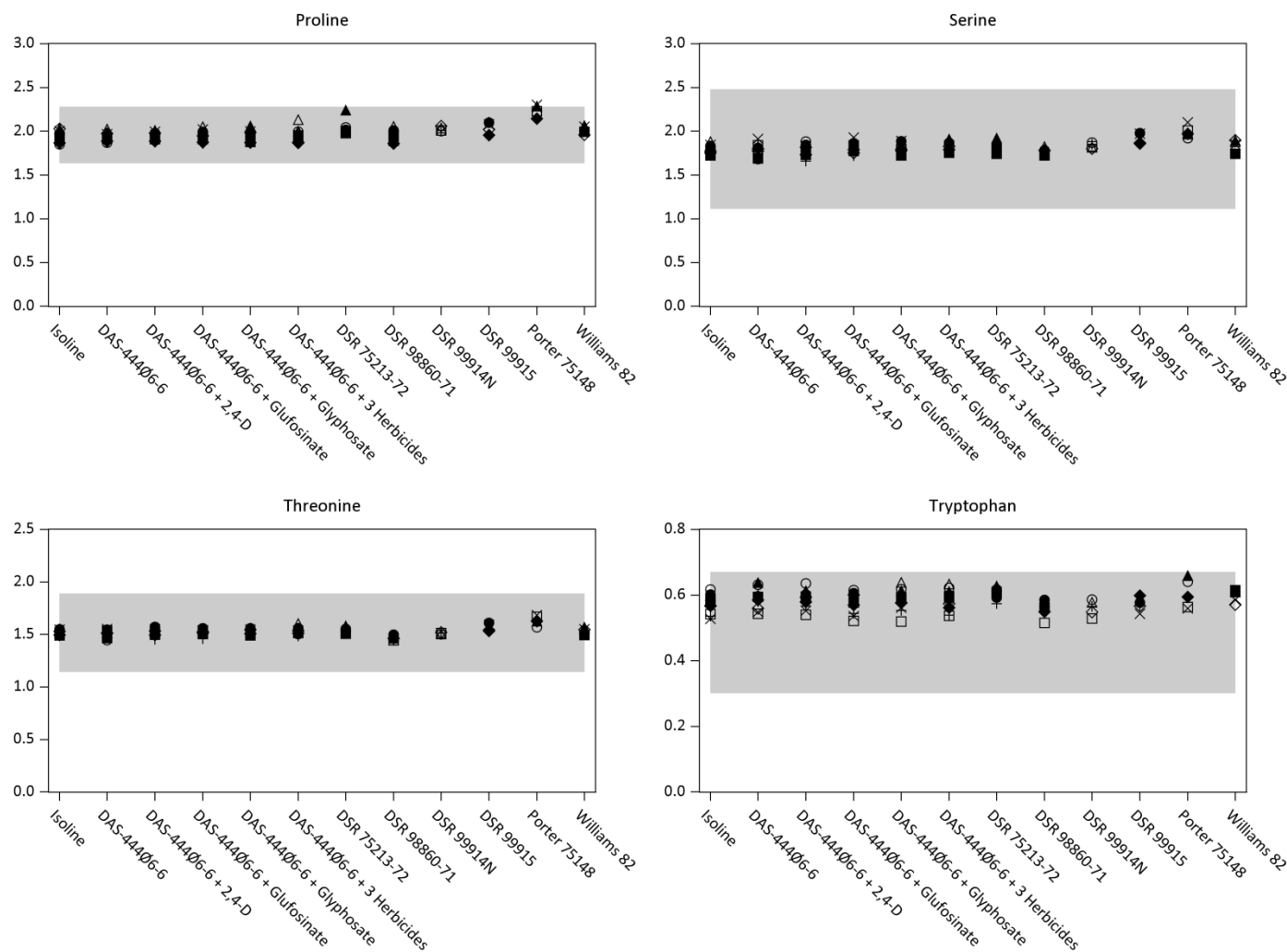


Figure 5 (Cont).

Amino acids (% dry weight) in non-transgenic (Isoline), Event DAS-44406-6, and reference line soybean seed. Symbols for each location shown: open circle = GA, × = IA1, + = IA2, open triangle = IL1, open square = IL2, open diamond = IN, filled circle = MI, filled triangle = MO, filled square = NE1, filled diamond = NE2. Literature range is shaded for each analyte.

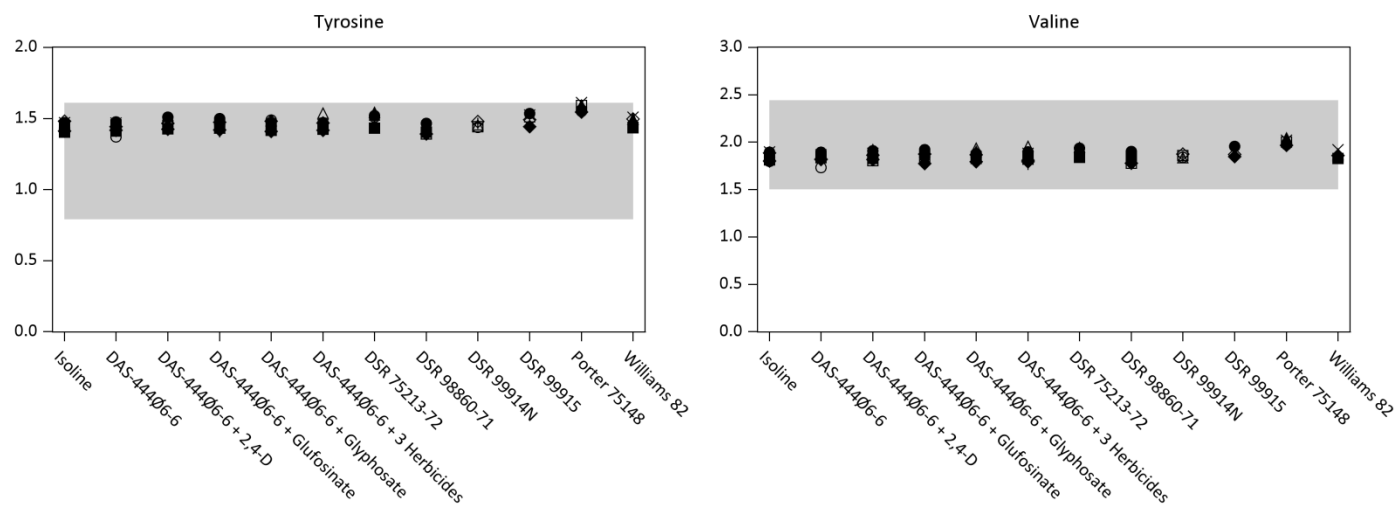


Figure 5 (Cont).

Amino acids (% dry weight) in non-transgenic (Isoline), Event DAS-44406-6, and reference line soybean seed. Symbols for each location shown: open circle = GA, × = IA1, + = IA2, open triangle = IL1, open square = IL2, open diamond = IN, filled circle = MI, filled triangle = MO, filled square = NE1, filled diamond = NE2. Literature range is shaded for each analyte.

### Fatty Acid Analysis of Seed

Soybean seed samples from the control, reference, and DAS-444Ø6-6 entries were analyzed for fatty acid content. A summary of the results across all locations is presented in Table 15 and Figure 6. All mean results were within literature ranges (when available) and within ranges for reference lines included in the study. Statistical analysis was not performed for the following analytes since greater than 50% of the samples were found to be below the LOQ: caprylic (8:0), capric (10:0), lauric (12:0), myristic (14:0), myristoleic (14:1), pentadecanoic (15:0), pentadecenoic (15:1), palmitoleic (16:1), heptadecanoic (17:0), heptadecenoic (17:1),  $\gamma$ -linolenic (18:3), eicosadienoic (20:2), eicosatrienoic (20:3), and arachidonic (20:4). No statistical differences were observed in the combined-site analysis between the control and DAS-444Ø6-6 entries for stearic (18:0) and eicosenoic (20:1). Statistically significant differences were observed for palmitic (16:0), oleic (18:1), linoleic (18:2), linolenic (18:3), arachidic (20:0), and behenic (22:0) for some DAS-444Ø6-6 entries compared with the control, where mean differences were negligible and not biologically meaningful as means were within literature ranges and within ranges for reference lines included in the study.



Table 15. Summary of the fatty acid analysis of DAS-444Ø6-6 soybean seed from all sites, and associated literature range.

Analytical Component (Units) <sup>a</sup>	Overall Trt Effect (Pr > F) <sup>b</sup>	Isoline Mean ± SE Min - Max	DAS-444Ø6-6 unsprayed Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-444Ø6-6 sprayed w/ 2,4-D Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-444Ø6-6 sprayed w/ Glufosinate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-444Ø6-6 sprayed w/ Glyphosate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-444Ø6-6 sprayed w/ Three Herbicides Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	Reference Range Min - Max	Combined Literature Range <sup>d</sup> Min - Max
<b>Fatty Acid</b>									
8:0 Caprylic (% total fatty acid)	NA	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	< LOQ	< LOQ - 0.148
10:0 Capric (% total fatty acid)	NA	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	< LOQ	ND - 0.27
12:0 Lauric (% total fatty acid)	NA	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	< LOQ	< LOQ - 0.132
14:0 Myristic (% total fatty acid)	NA	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	< LOQ	< LOQ - 0.238
14:1 Myristoleic (% total fatty acid)	NA	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	< LOQ	< LOQ - 0.125
15:0 Pentadecanoic (% total fatty acid)	NA	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	< LOQ	ND
15:1 Pentadecenoic (% total fatty acid)	NA	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	< LOQ	ND
16:0 Palmitic (% total fatty acid)	<0.001	10.9 ± 0.1 10.4 - 12.55	10.7 ± 0.1 10.21 - 11.02 (<0.001, <0.001)	10.7 ± 0.1 10.24 - 11.11 (<0.001, <0.001)	10.7 ± 0.1 10.07 - 11.06 (<0.001, <0.001)	10.7 ± 0.1 10.25 - 11.2 (<0.001, <0.001)	10.6 ± 0.1 10.05 - 11.03 (<0.001, <0.001)	9.5 - 11.31	9.55 - 15.77

Abbreviations: NA (Not Available) = analysis not performed, majority of data was < LOQ (Limit of Quantitation); ND (Not Detected) = < LOQ; NR = Not Reported.

<sup>a</sup> Unit of measure was converted from % dry wt. to % total fatty acid prior to analysis.

<sup>b</sup> Overall treatment effect estimated using an F-test.

<sup>c</sup> Comparison to the control using t-tests (P-value); P-values adjusted (Adj. P) using a False Discovery Rate (FDR) procedure; P-values < 0.05 were considered significant.

<sup>d</sup> Combined range from Appendix B.

Table 15 (Cont). Summary of the fatty acid analysis of DAS-44406-6 soybean seed from all sites, and associated literature range.

Analytical Component (Units) <sup>a</sup>	Overall Trt Effect (Pr > F) <sup>b</sup>	Isoline Mean ± SE Min - Max	DAS-44406-6 unsprayed Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ 2,4-D Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ Glufosinate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ Glyphosate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ Three Herbicides Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	Reference Range Min - Max	Combined Literature Range <sup>d</sup> Min - Max
<b>Fatty Acid</b>									
16:1 Palmitoleic (% total fatty acid)	NA	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	< LOQ	< LOQ - 0.194
17:0 Heptadecanoic (% total fatty acid)	NA	NA < LOQ - 0.11	NA < LOQ - 0.136	NA < LOQ - 0.136	NA < LOQ - 0.126	NA < LOQ - 0.135	NA < LOQ - 0.142	< LOQ	< LOQ - 0.146
17:1 Heptadecenoic (% total fatty acid)	NA	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	< LOQ	< LOQ - 0.087
18:0 Stearic (% total fatty acid)	0.391	4.51 ± 0.07 3.88 - 5	4.47 ± 0.07 3.96 - 4.93 (0.174, 0.372)	4.47 ± 0.07 4.05 - 4.89 (0.159, 0.358)	4.48 ± 0.07 4.07 - 5.04 (0.343, 0.554)	4.48 ± 0.07 4.08 - 4.96 (0.261, 0.468)	4.52 ± 0.07 4.11 - 4.95 (0.785, 0.901)	3.28 - 4.98	2.59 - 5.88
18:1 Oleic (% total fatty acid)	<0.001	23.5 ± 0.5 20.8 - 28.3	21.4 ± 0.5 18.4 - 23.7 (<0.001, <0.001)	21.5 ± 0.5 18.8 - 25.9 (<0.001, <0.001)	21.8 ± 0.5 18.9 - 26 (<0.001, <0.001)	21.7 ± 0.5 19.1 - 26.3 (<0.001, <0.001)	21.9 ± 0.5 19.2 - 26.3 (<0.001, <0.001)	18.1 - 27.9	14.3 - 45.68
18:2 Linoleic (% total fatty acid)	<0.001	53.0 ± 0.3 50.9 - 54.5	54.8 ± 0.3 53.4 - 56.8 (<0.001, <0.001)	54.6 ± 0.3 52.6 - 56.5 (<0.001, <0.001)	54.4 ± 0.3 52.5 - 56.1 (<0.001, <0.001)	54.5 ± 0.3 52.1 - 56.2 (<0.001, <0.001)	54.2 ± 0.3 51.7 - 56.2 (<0.001, <0.001)	50.1 - 56.7	35.36 - 58.8
18:3 Linolenic (% total fatty acid)	<0.001	7.32 ± 0.33 5.03 - 8.88	7.77 ± 0.33 5.56 - 9.38 (<0.001, <0.001)	7.79 ± 0.33 5.33 - 9.29 (<0.001, <0.001)	7.86 ± 0.33 5.48 - 9.47 (<0.001, <0.001)	7.76 ± 0.33 5.46 - 9.42 (<0.001, <0.001)	7.92 ± 0.33 5.38 - 9.48 (<0.001, <0.001)	4.83 - 9.82	3 - 12.52
18:3 γ-Linolenic (% total fatty acid)	NA	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	< LOQ	ND

Abbreviations: NA (Not Available) = analysis not performed, majority of data was < LOQ (Limit of Quantitation); ND (Not Detected) = < LOQ; NR = Not Reported.

<sup>a</sup> Unit of measure was converted from % dry wt. to % total fatty acid prior to analysis.

<sup>b</sup> Overall treatment effect estimated using an F-test.

<sup>c</sup> Comparison to the control using t-tests (P-value); P-values adjusted (Adj. P) using a False Discovery Rate (FDR) procedure; P-values < 0.05 were considered significant.

<sup>d</sup> Combined range from Appendix B.

Table 15 (Cont). Summary of the fatty acid analysis of DAS-44406-6 soybean seed from all sites, and associated literature range.

Analytical Component (Units) <sup>a</sup>	Overall Trt Effect (Pr > F) <sup>b</sup>	Isoline Mean ± SE Min - Max	DAS-44406-6 unsprayed Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ 2,4-D Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ Glufosinate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ Glyphosate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ Three Herbicides Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	Reference Range Min - Max	Combined Literature Range <sup>d</sup> Min - Max
<b>Fatty Acid</b>									
20:0 Arachidic (% total fatty acid)	0.055	0.328 ± 0.005 0.298 - 0.39	0.323 ± 0.005 0.29 - 0.353 ( <b>0.015</b> , 0.075)	0.323 ± 0.005 0.293 - 0.358 ( <b>0.018</b> , 0.083)	0.325 ± 0.005 0.289 - 0.366 (0.084, 0.243)	0.323 ± 0.005 0.29 - 0.359 ( <b>0.010</b> , 0.058)	0.327 ± 0.005 0.296 - 0.357 (0.401, 0.616)	0.254 - 0.427	0.163 - 0.57
20:1 Eicosenoic (% total fatty acid)	0.194	0.169 ± 0.009 < LOQ - 0.254	0.171 ± 0.009 < LOQ - 0.239 (0.131, 0.307)	0.171 ± 0.009 < LOQ - 0.254 (0.181, 0.378)	0.171 ± 0.009 < LOQ - 0.247 (0.123, 0.297)	0.172 ± 0.009 < LOQ - 0.24 (0.072, 0.215)	0.168 ± 0.009 < LOQ - 0.239 (0.865, 0.949)	< LOQ - 0.272	< LOQ - 0.350
20:2 Eicosadienoic (% total fatty acid)	NA	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	< LOQ	< LOQ - 0.245
20:3 Eicosatrienoic (% total fatty acid)	NA	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	< LOQ	ND
20:4 Arachidonic (% total fatty acid)	NA	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	NA < LOQ	< LOQ	ND
22:0 Behenic (% total fatty acid)	<b>0.009</b>	0.326 ± 0.004 0.273 - 0.365	0.332 ± 0.004 0.303 - 0.368 ( <b>0.018</b> , 0.083)	0.331 ± 0.004 0.298 - 0.371 ( <b>0.029</b> , 0.112)	0.332 ± 0.004 0.299 - 0.367 ( <b>0.014</b> , 0.075)	0.328 ± 0.004 0.294 - 0.365 (0.237, 0.448)	0.335 ± 0.004 0.309 - 0.371 ( <b>&lt;0.001</b> , <b>0.003</b> )	0.29 - 0.454	0.277 - 0.595

Abbreviations: NA (Not Available) = analysis not performed, majority of data was < LOQ (Limit of Quantitation); ND (Not Detected) = < LOQ; NR = Not Reported.

<sup>a</sup> Unit of measure was converted from % dry wt. to % total fatty acid prior to analysis.

<sup>b</sup> Overall treatment effect estimated using an F-test.

<sup>c</sup> Comparison to the control using t-tests (P-value); P-values adjusted (Adj. P) using a False Discovery Rate (FDR) procedure; P-values < 0.05 were considered significant.

<sup>d</sup> Combined range from Appendix B.

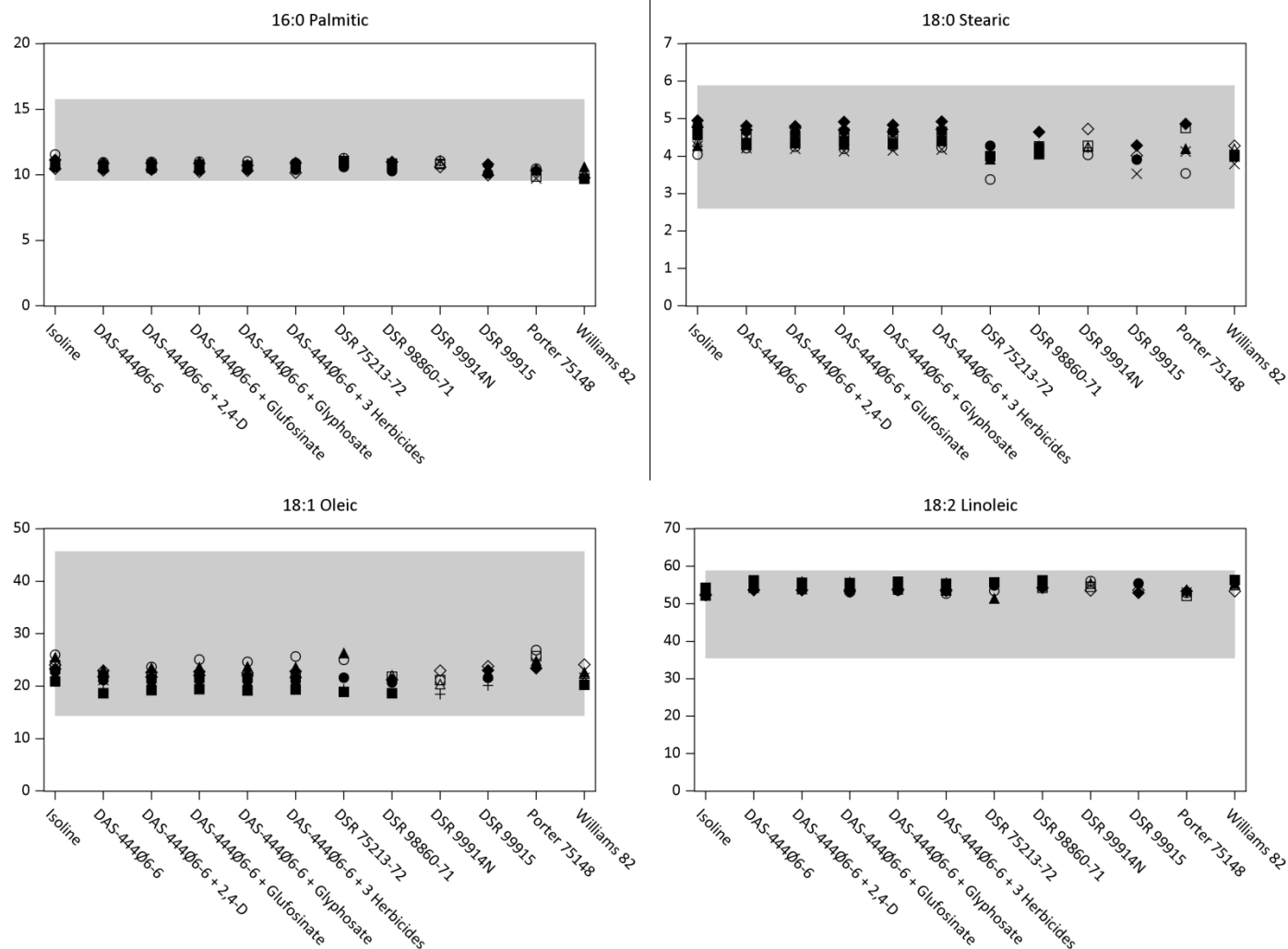


Figure 6.

Fatty acids (% total fatty acid) in non-transgenic (Isoline), Event DAS-44406-6, and reference line soybean seed. Symbols for each location shown: open circle = GA, × = IA1, + = IA2, open triangle = IL1, open square = IL2, open diamond = IN, filled circle = MI, filled triangle = MO, filled square = NE1, filled diamond = NE2. Literature range is shaded for each analyte.

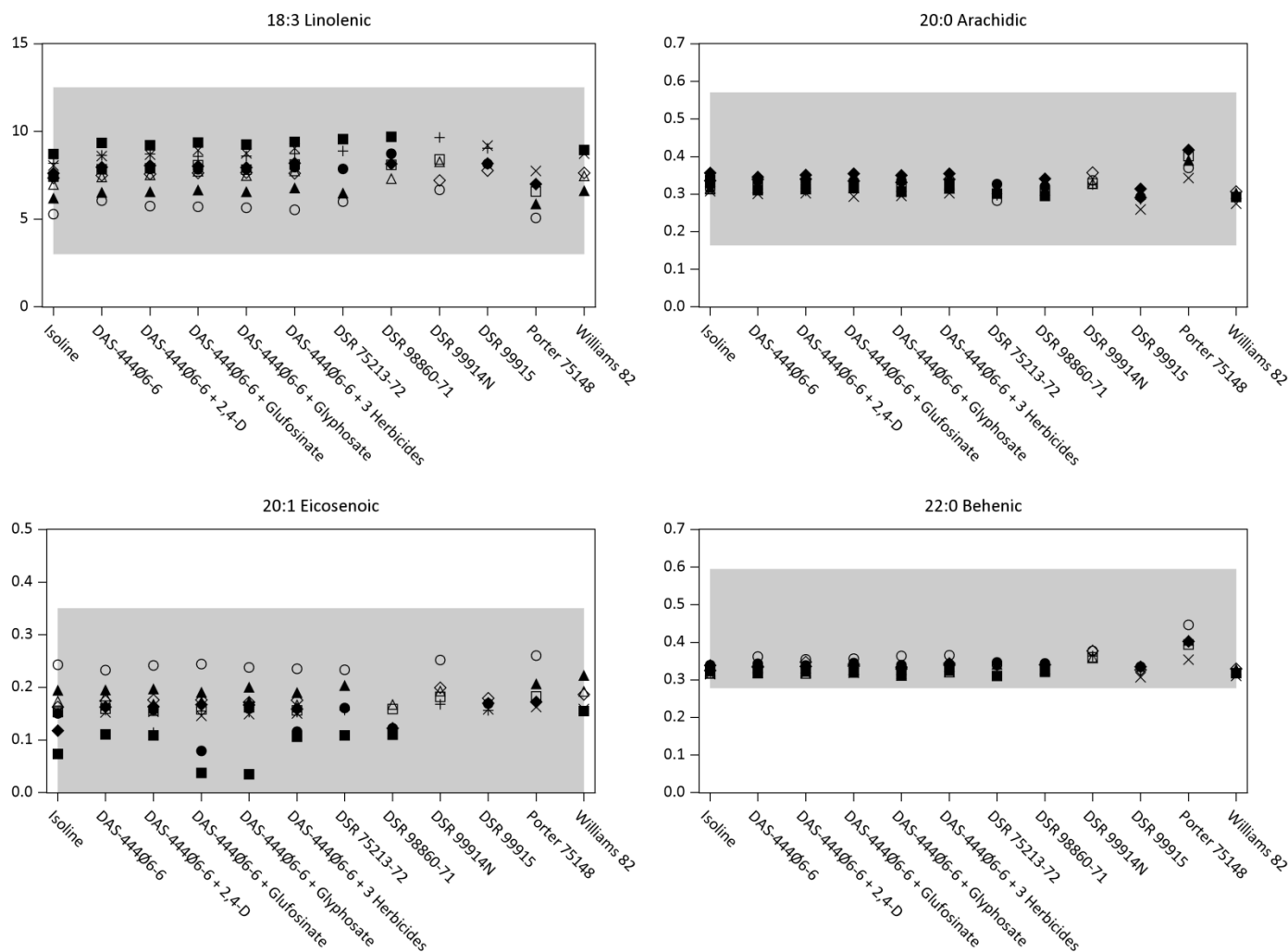


Figure 6 (Cont).

Fatty acids (% total fatty acid) in non-transgenic (Isoline), Event DAS-44406-6, and reference line soybean seed. Symbols for each location shown: open circle = GA, × = IA1, + = IA2, open triangle = IL1, open square = IL2, open diamond = IN, filled circle = MI, filled triangle = MO, filled square = NE1, filled diamond = NE2. Literature range is shaded for each analyte.

### Vitamin Analysis of Seed

Soybean seed samples from the control, reference, and DAS-444Ø6-6 entries were analyzed for vitamin content. A summary of the results across all locations is presented in Table 16 and Figure 7. All mean results were within literature ranges (when available) and/or within ranges for reference lines included in the study. For Vitamin A and  $\beta$ -Tocopherol, statistical analysis was not performed since greater than 50% of the samples were found to be below the LOQ. No statistical differences were observed in the combined-site analysis between the control and DAS-444Ø6-6 entries for Vitamins B<sub>3</sub>, B<sub>5</sub>, B<sub>6</sub>, and  $\delta$ -Tocopherol. Statistically significant differences were observed for Vitamins B<sub>1</sub>, B<sub>2</sub>, B<sub>9</sub>, C, E,  $\gamma$ -Tocopherol, and total tocopherol for some DAS-444Ø6-6 entries compared with the control, where mean differences were negligible and not biologically meaningful as means were within literature ranges and/or within ranges for reference lines included in the study.

Table 16. Summary of the vitamin analysis of DAS-44406-6 soybean seed from all sites, and associated literature range.

Analytical Component (Units) <sup>a</sup>	Overall Trt Effect (Pr > F) <sup>b</sup>	Isoline Mean ± SE Min - Max	DAS-44406-6 unsprayed Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ 2,4-D Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ Glufosinate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ Glyphosate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-44406-6 sprayed w/ Three Herbicides Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	Reference Range Min - Max	Combined Literature Range <sup>d</sup> Min - Max
<b>Vitamin</b>									
Vitamin A (β-Carotene) (mg/kg DW)	NA	NA 0 - 0.894	NA 0 - 0.803	NA 0 - 0.928	NA 0 - 0.762	NA 0 - 1.1	NA 0 - 0.78	0 - 0.871	NR
Vitamin B <sub>1</sub> (Thiamine) (mg/kg DW)	0.241	3.64 ± 0.20 2.28 - 5.87	3.42 ± 0.20 2.2 - 4.75 (0.126, 0.303)	3.46 ± 0.20 2.35 - 4.5 (0.215, 0.428)	3.32 ± 0.20 1.14 - 5.12 (0.026, 0.105)	3.38 ± 0.20 2.03 - 5.01 (0.067, 0.202)	3.55 ± 0.20 2.13 - 5.54 (0.521, 0.723)	1.65 - 5.48	1.01 - 2.54
Vitamin B <sub>2</sub> (Riboflavin) (mg/kg DW)	0.199	3.99 ± 0.09 3.04 - 4.97	3.90 ± 0.09 2.99 - 4.81 (0.318, 0.535)	3.88 ± 0.09 3.03 - 4.91 (0.244, 0.451)	3.99 ± 0.09 2.98 - 4.71 (0.943, 0.976)	3.88 ± 0.09 2.64 - 5.1 (0.219, 0.432)	3.77 ± 0.09 2.32 - 4.88 (0.022, 0.095)	2.72 - 4.76	1.90 - 3.21
Vitamin B <sub>3</sub> (Niacin) (mg/kg DW)	0.765	26.5 ± 1.0 22.5 - 33.8	26.2 ± 1.0 19.2 - 32.8 (0.328, 0.541)	26.5 ± 1.0 22.9 - 34.3 (0.993, 0.996)	26.3 ± 1.0 21.8 - 34.1 (0.557, 0.735)	26.6 ± 1.0 22.9 - 36.8 (0.650, 0.804)	26.4 ± 1.0 22.6 - 35.4 (0.880, 0.956)	20.1 - 33	NR
Vitamin B <sub>5</sub> (Pantothenic Acid) (mg/kg DW)	0.277	15.4 ± 0.6 12.5 - 20.1	15.9 ± 0.6 12.3 - 20.5 (0.123, 0.297)	15.6 ± 0.6 8.29 - 20.4 (0.446, 0.662)	15.3 ± 0.6 13 - 19.8 (0.579, 0.758)	15.6 ± 0.6 12.3 - 21.2 (0.646, 0.804)	15.8 ± 0.6 12.9 - 20.3 (0.178, 0.377)	9.55 - 18.1	NR
Vitamin B <sub>6</sub> (Pyridoxine) (mg/kg DW)	0.268	4.89 ± 0.09 3.95 - 5.81	4.85 ± 0.09 3.68 - 5.7 (0.587, 0.763)	4.86 ± 0.09 3.98 - 5.95 (0.689, 0.834)	4.79 ± 0.09 4.19 - 5.85 (0.166, 0.363)	4.94 ± 0.09 4.15 - 5.88 (0.428, 0.646)	4.93 ± 0.09 4.08 - 6.19 (0.536, 0.725)	2.77 - 6.2	NR
Vitamin B <sub>9</sub> (Folic Acid) (mg/kg DW)	0.029	4.29 ± 0.19 2.7 - 5.78	4.09 ± 0.19 2.72 - 5.46 (0.063, 0.195)	4.03 ± 0.19 2.63 - 5.85 (0.016, 0.076)	4.02 ± 0.19 2.5 - 5.84 (0.015, 0.075)	4.07 ± 0.19 2.88 - 6.02 (0.039, 0.137)	3.92 ± 0.19 2.57 - 5.28 (0.001, 0.009)	2.35 - 5.98	2.386 - 4.709

Abbreviations: NA (Not Available) = analysis not performed, majority of data was < LOQ (Limit of Quantitation); ND (Not Detected) = < LOQ; NR = Not Reported.

<sup>a</sup> Unit of measure was not converted prior to analysis.

<sup>b</sup> Overall treatment effect estimated using an F-test.

<sup>c</sup> Comparison to the control using t-tests (P-value); P-values adjusted (Adj. P) using a False Discovery Rate (FDR) procedure; P-values < 0.05 were considered significant.

<sup>d</sup> Combined range from Appendix B.

Table 16 (Cont). Summary of the vitamin analysis of DAS-444Ø6-6 soybean seed from all sites, and associated literature range.

Analytical Component (Units) <sup>a</sup>	Overall Trt Effect (Pr > F) <sup>b</sup>	Isoline Mean ± SE Min - Max	DAS-444Ø6-6 unsprayed Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-444Ø6-6 sprayed w/ 2,4-D Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-444Ø6-6 sprayed w/ Glufosinate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-444Ø6-6 sprayed w/ Glyphosate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-444Ø6-6 sprayed w/ Three Herbicides Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	Reference Range Min - Max	Combined Literature Range <sup>d</sup> Min - Max
<b>Vitamin</b>									
Vitamin C (Ascorbic Acid) (mg/kg DW)	0.154	121.4 ± 12.7 0 - 198	107.8 ± 12.7 16.5 - 181 ( <b>0.008</b> , 0.051)	111.1 ± 12.7 17.6 - 194 ( <b>0.040</b> , 0.139)	112.1 ± 12.7 16.8 - 173 (0.064, 0.196)	112.8 ± 12.7 23.8 - 193 (0.083, 0.243)	113.6 ± 12.7 25.3 - 171 (0.117, 0.294)	0 - 141	NR
Vitamin E (α-Tocopherol) (mg/kg DW)	0.115	18.6 ± 3.9 10.5 - 46	22.2 ± 3.9 10.9 - 69 ( <b>0.023</b> , 0.096)	22.4 ± 3.9 11 - 56.8 ( <b>0.016</b> , 0.076)	22.2 ± 3.9 10.1 - 106 ( <b>0.020</b> , 0.092)	21.9 ± 3.9 10.9 - 55.7 ( <b>0.035</b> , 0.128)	22.2 ± 3.9 8.85 - 76.2 ( <b>0.023</b> , 0.096)	6.43 - 49.9	0.108 - 61.693
β-Tocopherol (mg/kg DW)	NA	NA 0 - 0	NA 0 - 0	NA 0 - 0	NA 0 - 0	NA 0 - 0	NA 0 - 0	0 - 6.42	NR
γ-Tocopherol (mg/kg DW)	<b>0.005</b>	174 ± 5 88.4 - 208	185 ± 5 157 - 224 ( <b>0.001</b> , <b>0.007</b> )	184 ± 5 154 - 220 ( <b>0.001</b> , <b>0.010</b> )	179 ± 5 99 - 214 (0.097, 0.261)	183 ± 5 153 - 217 ( <b>0.002</b> , <b>0.015</b> )	181 ± 5 116 - 227 ( <b>0.015</b> , 0.075)	116 - 215	NR
δ-Tocopherol (mg/kg DW)	0.317	73.3 ± 5.2 22.5 - 96.8	72.0 ± 5.2 40.4 - 94.3 (0.262, 0.468)	71.5 ± 5.2 35.5 - 94.6 (0.109, 0.281)	73.8 ± 5.2 40.5 - 99.6 (0.687, 0.834)	72.1 ± 5.2 40 - 98.2 (0.269, 0.475)	72.2 ± 5.2 31.5 - 96.1 (0.315, 0.535)	40 - 114	NR
Total Tocopherol (mg/kg DW)	<b>0.035</b>	266 ± 4 132 - 305	279 ± 4 244 - 316 ( <b>0.003</b> , <b>0.023</b> )	278 ± 4 252 - 306 ( <b>0.005</b> , <b>0.034</b> )	275 ± 4 161 - 375 ( <b>0.040</b> , 0.139)	277 ± 4 248 - 308 ( <b>0.008</b> , <b>0.049</b> )	276 ± 4 196 - 330 ( <b>0.024</b> , 0.100)	199 - 321	NR

Abbreviations: NA (Not Available) = analysis not performed, majority of data was < LOQ (Limit of Quantitation); ND (Not Detected) = < LOQ; NR = Not Reported.

<sup>a</sup> Unit of measure was not converted prior to analysis.

<sup>b</sup> Overall treatment effect estimated using an F-test.

<sup>c</sup> Comparison to the control using t-tests (P-value); P-values adjusted (Adj. P) using a False Discovery Rate (FDR) procedure; P-values < 0.05 were considered significant.

<sup>d</sup> Combined range from Appendix B.



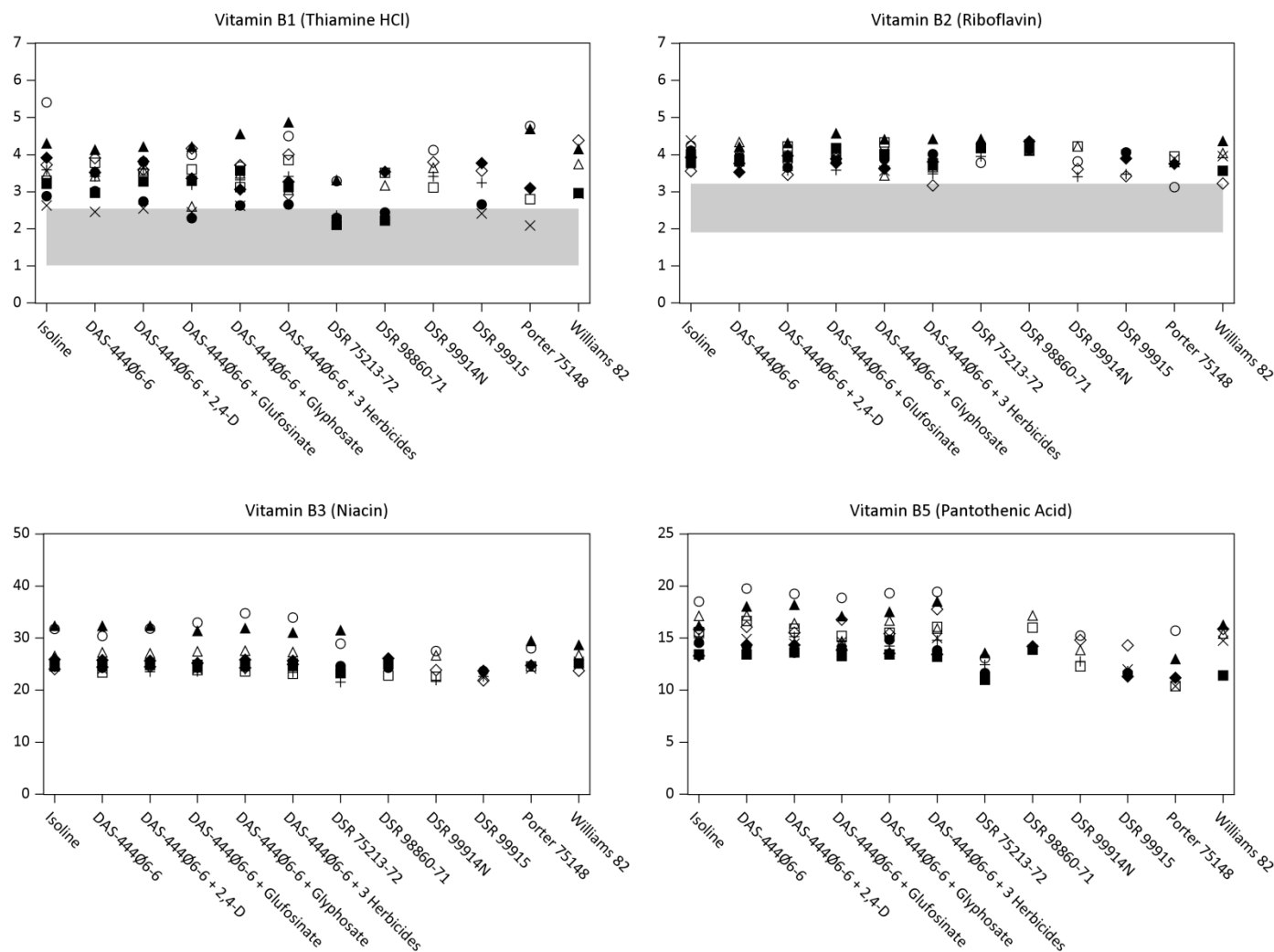


Figure 7.

Vitamins (mg/kg dry weight) in non-transgenic (Isoline), Event DAS-44406-6, and reference line soybean seed. Symbols for each location shown: open circle = GA, × = IA1, + = IA2, open triangle = IL1, open square = IL2, open diamond = IN, filled circle = MI, filled triangle = MO, filled square = NE1, filled diamond = NE2. Literature range is shaded for each analyte (when available).

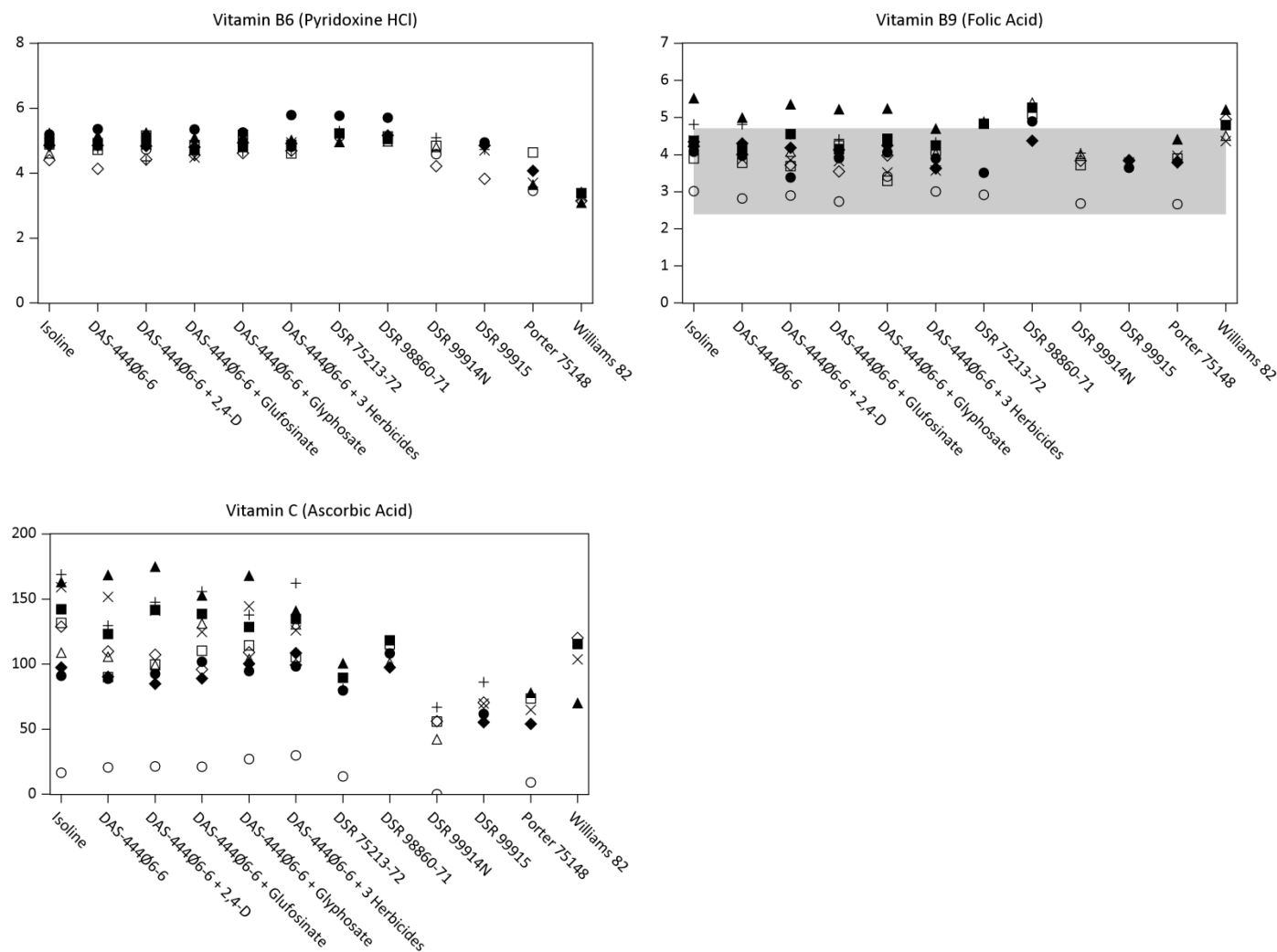


Figure 7 (Cont).

Vitamins (mg/kg dry weight) in non-transgenic (Isoline), Event DAS-44406-6, and reference line soybean seed. Symbols for each location shown: open circle = GA, × = IA1, + = IA2, open triangle = IL1, open square = IL2, open diamond = IN, filled circle = MI, filled triangle = MO, filled square = NE1, filled diamond = NE2. Literature range is shaded for each analyte (when available).

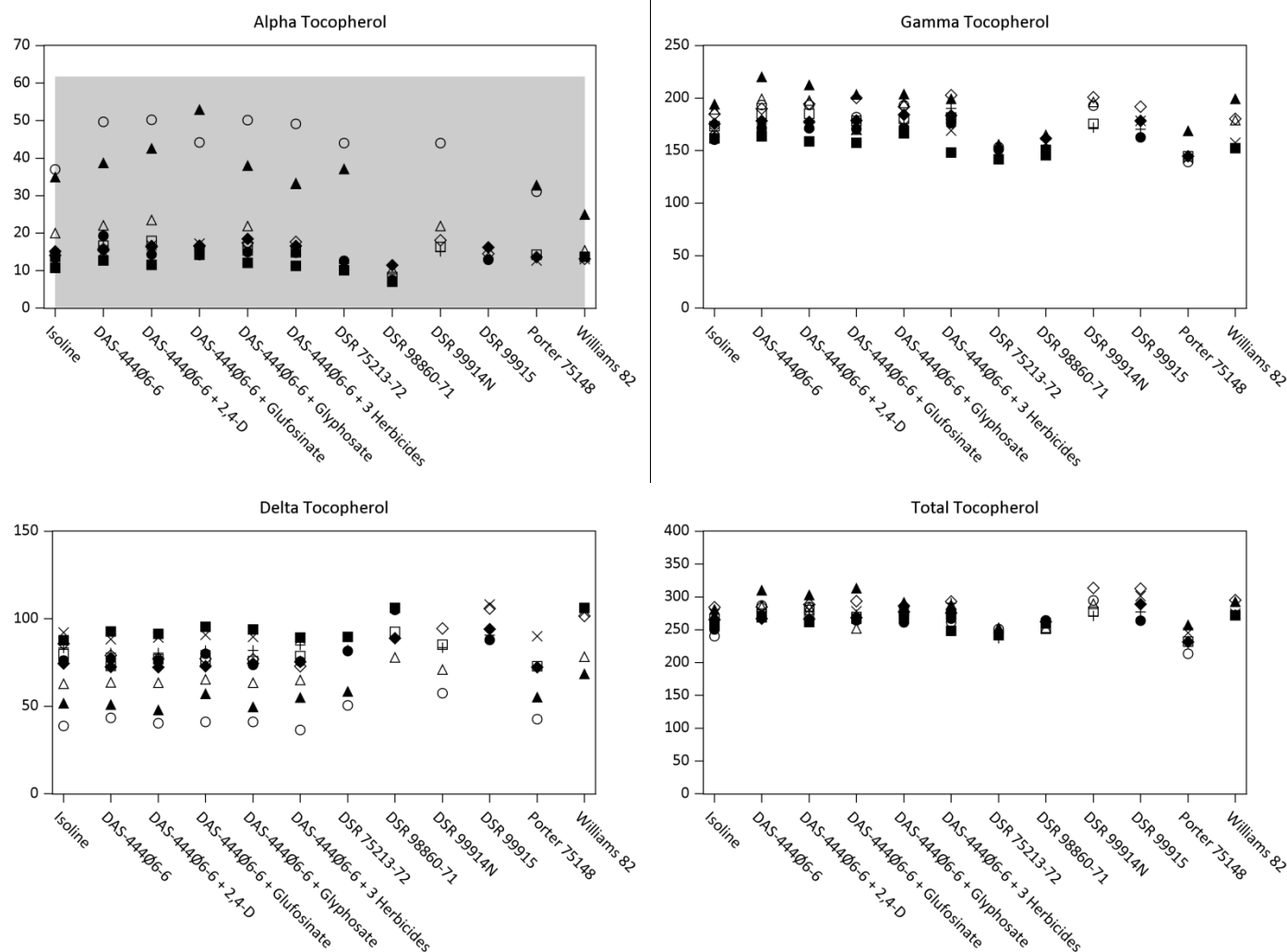


Figure 7 (Cont).

Vitamins (mg/kg dry weight) in non-transgenic (Isoline), Event DAS-44406-6, and reference line soybean seed. Symbols for each location shown: open circle = GA, x = IA1, + = IA2, open triangle = IL1, open square = IL2, open diamond = IN, filled circle = MI, filled triangle = MO, filled square = NE1, filled diamond = NE2. Literature range is shaded for each analyte (when available).

### Bioactive Analysis of Seed

Soybean seed samples from the control, reference, and DAS-444Ø6-6 entries were analyzed for bioactive chemical content. A summary of the results across all locations is presented in Table 17 and Figures 8 and 9. All mean results were within literature ranges and/or within ranges for reference lines included in the study. No statistical differences were observed in the combined-site analysis between the control and DAS-444Ø6-6 entries for phytic acid, stachyose, and total glycitein equivalent. Statistically significant differences were observed for lectin, raffinose, trypsin inhibitor, total daidzein equivalent, and total genistein equivalent for some DAS-444Ø6-6 entries compared with the control, where mean differences were negligible and not biologically meaningful as means were within literature ranges and/or within ranges for reference lines included in the study. Additionally, bioactive components including lectin and trypsin inhibitor are inactivated during standard processing of soybean seed prior to consumption [5, 24, 25].

Table 17. Summary of the bioactive analysis of DAS-444Ø6-6 soybean seed from all sites, and associated literature range.

Analytical Component (Units) <sup>a</sup>	Overall Trt Effect (Pr > F) <sup>b</sup>	Isoline Mean ± SE Min - Max	DAS-444Ø6-6 unsprayed Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-444Ø6-6 sprayed w/ 2,4-D Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-444Ø6-6 sprayed w/ Glufosinate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-444Ø6-6 sprayed w/ Glyphosate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-444Ø6-6 sprayed w/ Three Herbicides Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	Reference Range Min - Max	Combined Literature Range <sup>d</sup> Min - Max
<b>Bioactive</b>									
Lectin (H.U./mg protein DW)	<b>0.004</b>	79 ± 8 27.9 - 153	107 ± 8 60.6 - 228 ( <b>&lt;0.001, 0.001</b> )	94 ± 8 39.4 - 188 ( <b>0.021, 0.092</b> )	94 ± 8 56.3 - 146 ( <b>0.021, 0.092</b> )	92 ± 8 44.8 - 151 ( <b>0.049, 0.161</b> )	99 ± 8 31 - 196 ( <b>0.004, 0.026</b> )	18.5 - 144	37 - 323
Phytic Acid (% DW)	0.958	1.19 ± 0.07 0.513 - 1.53	1.18 ± 0.07 0.679 - 1.53 (0.789, 0.903)	1.19 ± 0.07 0.65 - 1.59 (0.866, 0.949)	1.18 ± 0.07 0.603 - 1.51 (0.511, 0.720)	1.18 ± 0.07 0.707 - 1.46 (0.632, 0.795)	1.19 ± 0.07 0.651 - 1.55 (0.824, 0.932)	0.55 - 1.54	0.41 - 2.74
Raffinose (% DW)	0.200	0.82 ± 0.06 0.497 - 1.29	0.80 ± 0.06 0.556 - 1.22 (0.151, 0.345)	0.80 ± 0.06 0.581 - 1.18 (0.092, 0.256)	0.80 ± 0.06 0.569 - 1.22 (0.050, 0.162)	0.80 ± 0.06 0.438 - 1.3 (0.104, 0.275)	0.79 ± 0.06 0.478 - 1.23 ( <b>0.012, 0.065</b> )	0.569 - 1.4	0.212 - 1.62
Stachyose (% DW)	0.905	3.88 ± 0.06 2.98 - 4.22	3.88 ± 0.06 3.38 - 4.11 (0.952, 0.976)	3.87 ± 0.06 3.21 - 4.26 (0.816, 0.928)	3.86 ± 0.06 2.95 - 4.29 (0.779, 0.901)	3.83 ± 0.06 2.77 - 4.18 (0.375, 0.590)	3.89 ± 0.06 3.08 - 4.38 (0.827, 0.932)	2.92 - 4.48	1.21 - 6.1
Trypsin Inhibitor (TIU/mg DW)	<b>0.025</b>	30.8 ± 3.0 18.4 - 54.6	35.0 ± 3.0 19 - 56 ( <b>0.015, 0.075</b> )	35.5 ± 3.0 17.4 - 71 ( <b>0.007, 0.047</b> )	36.6 ± 3.0 21.1 - 78.9 ( <b>0.001, 0.010</b> )	33.6 ± 3.0 21.3 - 51.7 (0.095, 0.260)	34.2 ± 3.0 21.8 - 62.6 ( <b>0.047, 0.159</b> )	15.6 - 59.7	18.14 - 118.68

Abbreviations: NA (Not Available) = analysis not performed, majority of data was < LOQ (Limit of Quantitation); ND (Not Detected) = < LOQ; NR = Not Reported.

<sup>a</sup> Unit of measure was not converted prior to analysis.

<sup>b</sup> Overall treatment effect estimated using an F-test.

<sup>c</sup> Comparison to the control using t-tests (P-value); P-values adjusted (Adj. P) using a False Discovery Rate (FDR) procedure; P-values < 0.05 were considered significant.

<sup>d</sup> Combined range from Appendix B.

<sup>e</sup> Combined range for Stachyose includes individual and mean values.

Table 17 (Cont). Summary of the bioactive analysis of DAS-444Ø6-6 soybean seed from all sites, and associated literature range.

Analytical Component (Units) <sup>a</sup>	Overall Trt Effect (Pr > F) <sup>b</sup>	Isoline Mean ± SE Min - Max	DAS-444Ø6-6 unsprayed Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-444Ø6-6 sprayed w/ 2,4-D Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-444Ø6-6 sprayed w/ Glufosinate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-444Ø6-6 sprayed w/ Glyphosate Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	DAS-444Ø6-6 sprayed w/ Three Herbicides Mean ± SE Min - Max (P-value, Adj.P) <sup>c</sup>	Reference Range Min - Max	Combined Literature Range <sup>d</sup> Min - Max
<b>Bioactive</b>									
Total Daidzein Equivalent (mcg/g DW)	0.176	809 ± 114 186 - 1450	777 ± 114 175 - 1420 (0.067, 0.202)	799 ± 114 179 - 1470 (0.540, 0.726)	800 ± 114 182 - 1510 (0.581, 0.758)	771 ± 114 124 - 1490 <b>(0.029, 0.111)</b>	781 ± 114 149 - 1430 (0.097, 0.261)	153 - 1710	25 - 2453.5
Total Genistein Equivalent (mcg/g DW)	0.216	890 ± 155 267 - 1670	863 ± 155 300 - 1730 (0.133, 0.311)	870 ± 155 251 - 1690 (0.269, 0.475)	877 ± 155 264 - 1720 (0.458, 0.670)	848 ± 155 215 - 1770 <b>(0.021, 0.092)</b>	855 ± 155 186 - 1700 (0.057, 0.181)	205 - 1980	28 - 2837.2
Total Glycitein Equivalent (mcg/g DW)	0.736	453 ± 107 222 - 1300	459 ± 107 237 - 1250 (0.656, 0.806)	465 ± 107 223 - 1290 (0.415, 0.632)	452 ± 107 223 - 1340 (0.948, 0.976)	448 ± 107 197 - 1250 (0.760, 0.894)	443 ± 107 212 - 1270 (0.521, 0.723)	85.2 - 1630	15.3 - 349.19

Abbreviations: NA (Not Available) = analysis not performed, majority of data was < LOQ (Limit of Quantitation); ND (Not Detected) = < LOQ; NR = Not Reported.

<sup>a</sup> Aglycone and glycone forms of each isoflavone were summed to produce a total aglycone equivalent prior to analysis.

<sup>b</sup> Overall treatment effect estimated using an F-test.

<sup>c</sup> Comparison to the control using t-tests (P-value); P-values adjusted (Adj. P) using a False Discovery Rate (FDR) procedure; P-values < 0.05 were considered significant.

<sup>d</sup> Combined range from Appendix B.

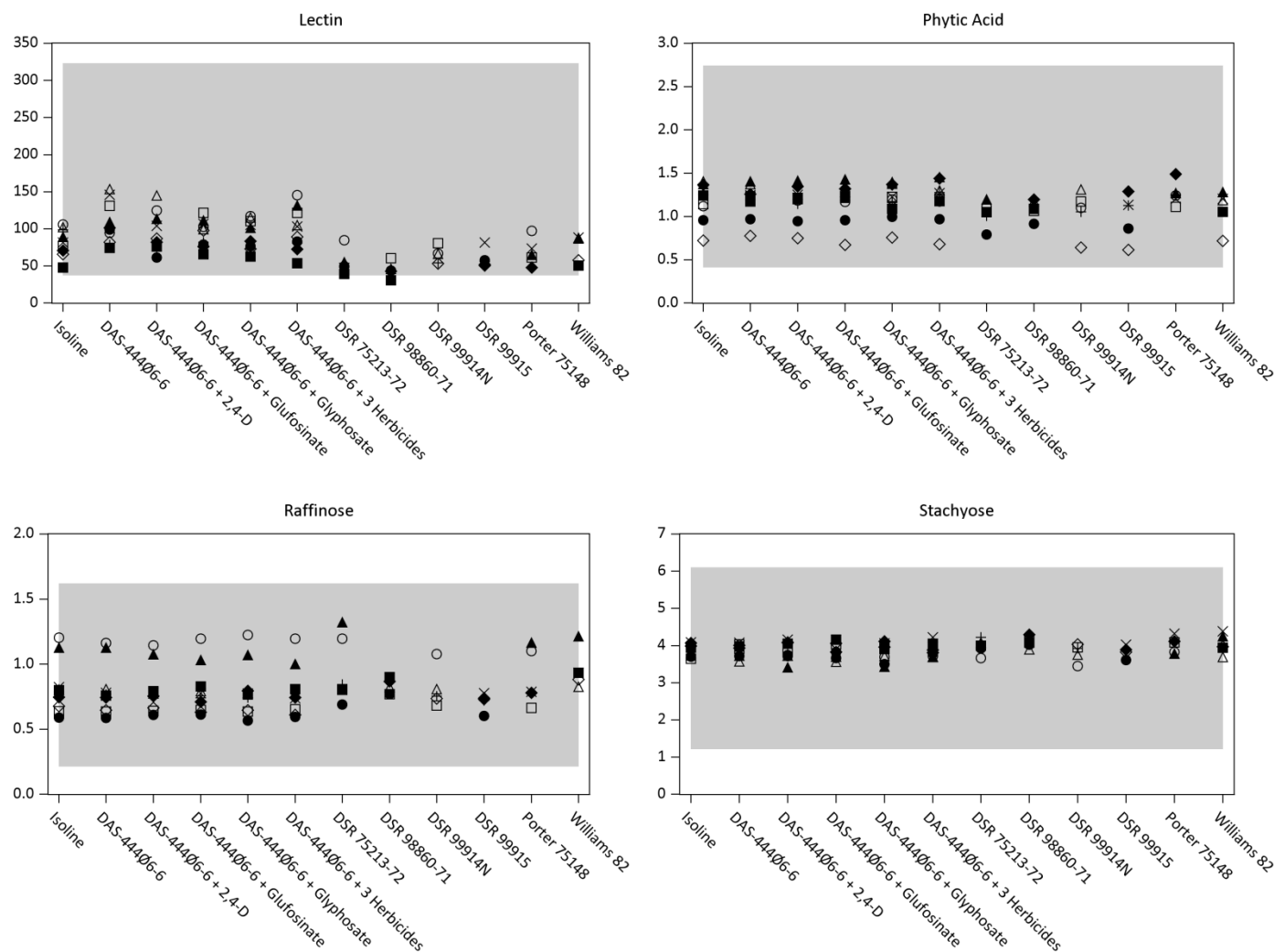


Figure 8.

Bioactives (% dry weight (DW)) for all bioactives except lectin (H.U./mg protein DW, H.U. = hemagglutination unit) and trypsin inhibitor (TIU/mg DW, TIU = trypsin inhibitor unit)) in non-transgenic (Isoline), Event DAS-44406-6, and reference line soybean seed. Symbols for each location shown: open circle = GA, x = IA1, + = IA2, open triangle = IL1, open square = IL2, open diamond = IN, filled circle = MI, filled triangle = MO, filled square = NE1, filled diamond = NE2. Literature range is shaded for each analyte.

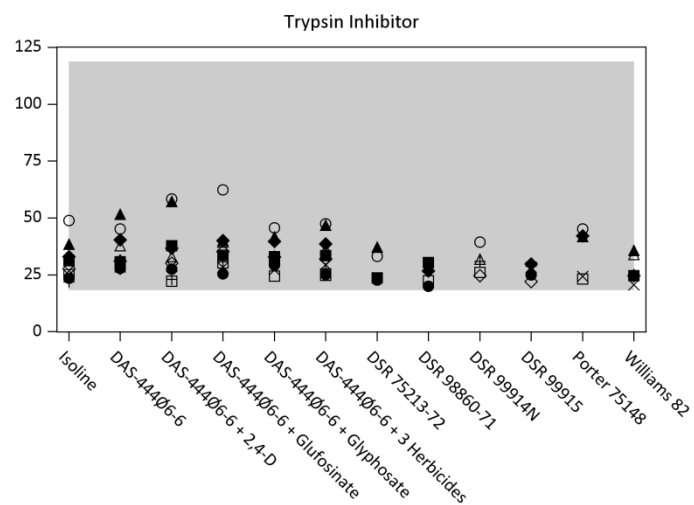


Figure 8 (Cont).

Bioactives (% dry weight (DW)) for all bioactives except lectin (H.U./mg protein DW, H.U. = hemagglutination unit) and trypsin inhibitor (TIU/mg DW, TIU = trypsin inhibitor unit) in non-transgenic (Isoline), Event DAS-44406-6, and reference line soybean seed. Symbols for each location shown: open circle = GA, x = IA1, + = IA2, open triangle = IL1, open square = IL2, open diamond = IN, filled circle = MI, filled triangle = MO, filled square = NE1, filled diamond = NE2. Literature range is shaded for each analyte.



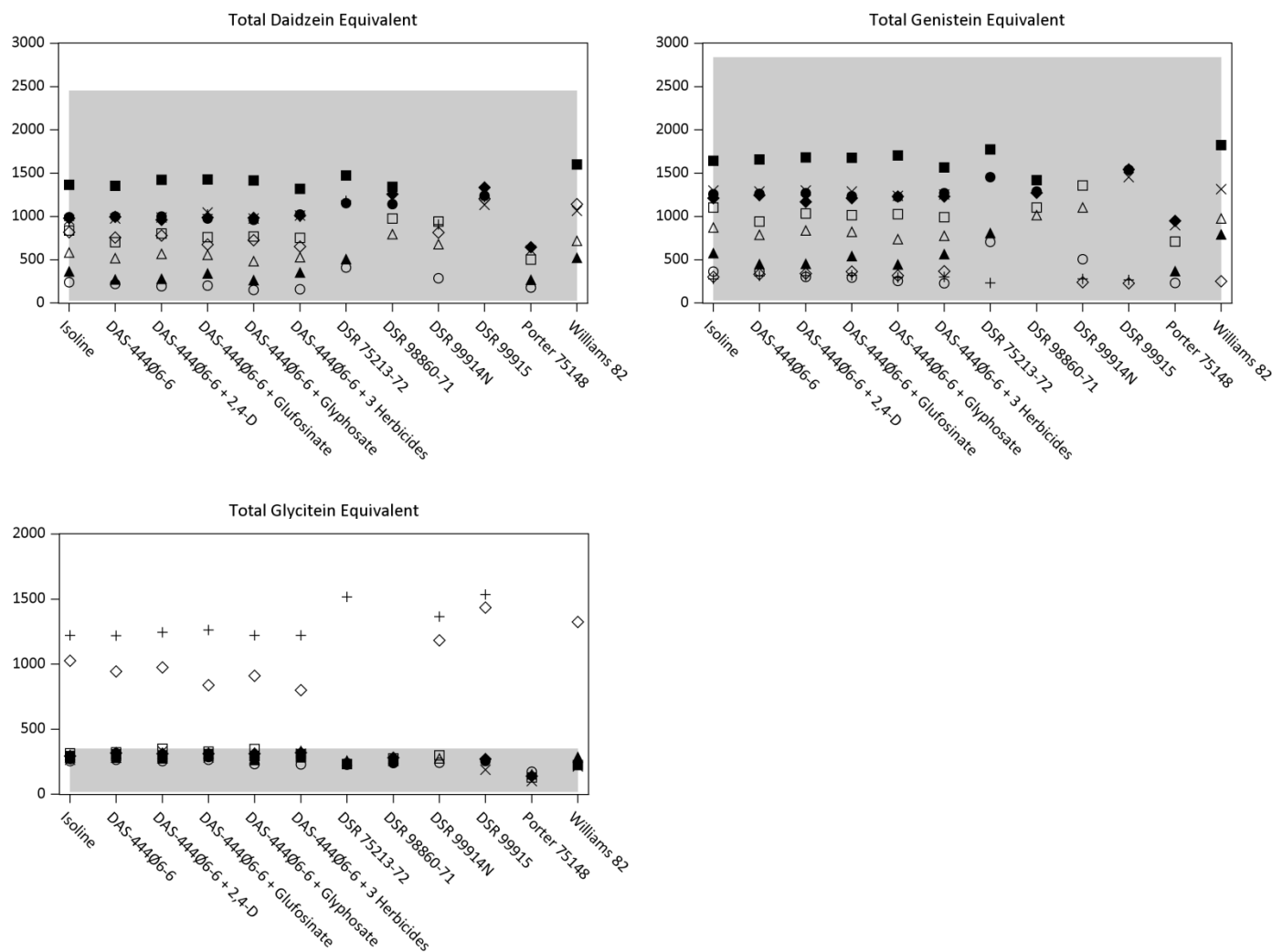


Figure 9.

Bioactives: isoflavones (mcg/g dry weight) in non-transgenic (Isoline), Event DAS-44406-6, and reference line soybean seed. Symbols for each location shown: open circle = GA, × = IA1, + = IA2, open triangle = IL1, open square = IL2, open diamond = IN, filled circle = MI, filled triangle = MO, filled square = NE1, filled diamond = NE2. Literature range is shaded for each analyte.

### Composition Summary

All overall mean values for the non-transgenic isogenic control and DAS-444Ø6-6 entries (unsprayed or sprayed with 2,4-D, glyphosate, glufosinate, or all three herbicides) were within literature ranges (when available) for soybean and/or within ranges for non-transgenic reference soybean lines included in the study. A limited number of statistically significant differences between DAS-444Ø6-6 entries (unsprayed and/or sprayed) and the control were observed, but the differences were not biologically meaningful as the results were within ranges found for non-transgenic soybean. In conclusion, the compositional results for DAS-444Ø6-6 soybean, unsprayed or sprayed with 2,4-D, glyphosate, glufosinate, or all three herbicides, confirm equivalence to non-transgenic soybean lines.

### CONCLUSIONS

Nutrient composition of DAS-444Ø6-6 soybean (unsprayed or sprayed with 2,4-D, glyphosate, glufosinate, or all three herbicides) was evaluated in field trials in 2010. DAS-444Ø6-6 (AAD-12 + 2mEPSPS + PAT) soybean composition samples were all statistically indistinguishable from the control line and/or within literature or reference ranges for non-transgenic soybean, indicating that no unintended compositional effects were observed for DAS-444Ø6-6 soybean. Results from this study demonstrate compositional equivalence between event DAS-444Ø6-6 and non-transgenic soybean.

### ARCHIVING

The final report and all raw data (including verified and signed copies) associated with this study will be filed in the Dow AgroSciences facility archives, Indianapolis, Indiana upon issuing the final report.

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## Appendix A— Study Protocol Amendments and Deviations

Appendix A Table 1. Study Amendments and Deviations.

Description	
<b>Protocol Amendment</b>	<ul style="list-style-type: none"> <li>Added Source ID numbers for seed.</li> <li>Modified sampling requirements due to stochastic weather events in trial 101104IL2.</li> <li>Supplied details for shipping of composition samples and for the compositional analysis to be conducted at Covance Laboratories, Inc.</li> <li>Modified sampling requirements due to stochastic weather events in trial 101104IA2.</li> <li>Directed discontinuation of entries comprising events removed from study.</li> <li>Supplied details of reserve sampling conducted to supplement or replace samples for trial 101104NE1.</li> <li>Supplied detail on addition of an analyte for seed composition analysis.</li> <li>Directed discontinuation of additional entries comprising events removed from study.</li> <li>Supplied details for statistical analysis.</li> <li>Supplied details for the reporting template.</li> </ul>
<b>Protocol Deviation</b>	<ul style="list-style-type: none"> <li>Email notification prior to shipping was not always provided. Sampling requirements for the protocol were not always met.</li> </ul>
<b>Field Site Deviation</b>	GA A chain of custody form was sent separately from samples. GA Sample sizes for some samples were below quantities requested. GA Herbicide application timing for Liberty was at V6 instead of the V5 growth stage. GA Grain moisture for two samples was slightly above requested level. IA1 Overspray of a treated plot resulted in the death of a reference substance plot. IA1 Number of sprayer nozzles was greater than requested. IA2 Number of sprayer nozzles was greater than requested. IA2 Reduced amount of additive was included for application 2. IA2 Sample sizes for some composition samples were below quantities requested. IA2 Control entry plots were harvested after test entry plots. IL1 A sample was lost to the ground during harvest. IL1 Sample labels switched for identical sample type. IL2 Herbicide application rate was slightly below target range for application 1. IL2 Email notification prior to shipping was not provided. IL2 Samples collected over a two day period as opposed to a one day period. IN Samples collected over a two day period as opposed to a one day period. MI Number of sprayer nozzles was greater than requested. MO Number of sprayer nozzles was greater than requested. NE1 Number of sprayer nozzles was greater than requested. NE1 Sample sizes for some composition samples were below quantities requested. NE2 Number of sprayer nozzles was greater than requested. NE2 Sample sizes for some composition samples were below quantities requested.



## Appendix B—Composition Literature Ranges

Appendix B Table 1. Literature ranges for soybean forage: proximate, fiber, and minerals.

Analyte	Units	Combined Range		OECD 2001 <sup>a</sup>		ILSI 2010 <sup>a</sup>		Literature		Literature Citations <sup>a</sup>	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Protein	% Dry weight	11.2	24.71	11.2	17.3	14.38	24.71	11.77	24.29	Berman et al. 2010	Lundry et al. 2008
Total Fat	% Dry weight	1.01	9.87	NR	NR	1.302	5.132	1.01	9.87	Berman et al. 2010	Lundry et al. 2008
Ash	% Dry weight	4.68	10.782	8.8	10.5	6.718	10.782	4.68	9.24	Harrigan et al. 2007	Lundry et al. 2008
Moisture	% Fresh weight	32.05	84.60	74	79	73.5	81.6	32.05	84.60	Berman et al. 2009	Berman et al. 2010
Carbohydrates	% Dry weight	59.8	80.18	NR	NR	59.8	74.7	60.61	80.18	Berman et al. 2009	Berman et al. 2010
ADF	% Dry weight	22.72	59.03	32	38	NR	NR	22.72	59.03	Harrigan et al. 2007	Berman et al. 2010
NDF	% Dry weight	19.61	73.05	34	40	NR	NR	19.61	73.05	Lundry et al. 2008	Berman et al. 2010
Calcium	% Dry weight	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Phosphorus	% Dry weight	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

<sup>a</sup> See References section for literature cited; NR = Not Reported.

Appendix B Table 2. Literature ranges for soybean seed: proximate, fiber, and minerals.

Analyte	Units	Combined Range		OECD 2001 <sup>a</sup>		ILSI 2010 <sup>a</sup>		Literature		Literature Citations <sup>a</sup>	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Protein	% Dry weight	32	48.4	32	43.6	33.19	45.48	32.54	48.4	Harrigan et al. 2007	Hartwig and Kilen 1991
Total Fat	% Dry weight	8.104	24.7	15.5	24.7	8.104	23.562	14.10	23.67	Padgett et al. 1996	Berman et al. 2010
Ash	% Dry weight	3.885	6.994	4.5	6.4	3.885	6.994	4.29	6.44	Padgett et al. 1996	Harrigan et al. 2007
Moisture	% Fresh weight	4.7	34.4	NR	NR	4.7	34.4	4.71	14.30	Harrigan et al. 2007	Taylor et al. 1999
Carbohydrates	% Dry weight	29.3	50.2	31.7	31.8	29.6	50.2	29.3	44.35	Padgett et al. 1996	Harrigan et al. 2007
Acid Detergent Fiber (ADF)	% Dry weight	7.81	26.26	9	11.1	7.81	18.61	9.22	26.26	Lundry et al. 2008	Lundry et al. 2008
Neutral Detergent Fiber (NDF)	% Dry weight	8.53	23.90	10	14.9	8.53	21.25	10.79	23.90	Lundry et al. 2008	Lundry et al. 2008
Total Dietary Fiber	% Dry weight	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Calcium	mg/100g Dry weight	116.55	510	NR	NR	116.55	307.1	258	510	Iskander 1987	Bilyeu et al. 2008
Copper	mg/100g Dry weight	0.632	1.092	NR	NR	NR	NR	0.632	1.092	Bilyeu et al. 2008	Bilyeu et al. 2008
Iron	mg/100g Dry weight	3.734	10.954	NR	NR	5.536	10.954	3.734	6.624	Bilyeu et al. 2008	Bilyeu et al. 2008
Magnesium	mg/100g Dry weight	219.40	312.84	NR	NR	219.40	312.84	261	280	Iskander 1987	Bilyeu et al. 2008
Manganese	mg/100g Dry weight	2.52	3.876	NR	NR	NR	NR	2.52	3.876	Iskander 1987	Bilyeu et al. 2008
Phosphorus	mg/100g Dry weight	506.74	935.24	NR	NR	506.74	935.24	770	790	Bilyeu et al. 2008	Bilyeu et al. 2008
Potassium	mg/100g Dry weight	1868.01	2510	NR	NR	1868.01	2316.14	1910	2510	Iskander 1987	Bilyeu et al. 2008
Selenium	ppb Dry weight	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Sodium	mg/100g Dry weight	4.05	30	NR	NR	NR	NR	4.05	30	Iskander 1987	Bilyeu et al. 2008
Zinc	mg/100g Dry weight	4.98	7.578	NR	NR	NR	NR	4.98	7.578	Iskander 1987	Bilyeu et al. 2008

<sup>a</sup> See References section for literature cited; NR = Not Reported.

Appendix B Table 3. Literature ranges for soybean seed: amino acids.

Analyte	Units	Combined Range		OECD 2001 <sup>a</sup>		ILSI 2010 <sup>a</sup>		Literature		Literature Citations <sup>a</sup>	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Alanine	% Dry weight	1.43	2.10	NR	NR	1.51	2.10	1.43	1.93	Berman et al. 2009	Berman et al. 2009
Arginine	% Dry weight	2.15	3.46	2.45	3.1	2.29	3.4	2.15	3.46	Berman et al. 2009	Padgett et al. 1996
Aspartic Acid	% Dry weight	3.81	6.04	NR	NR	3.81	5.12	3.90	6.04	Harrigan et al. 2007	Berman et al. 2010
Cystine	% Dry weight	0.37	0.81	0.45	0.67	0.37	0.81	0.41	0.71	Berman et al. 2009	Berman et al. 2009
Glutamic Acid	% Dry weight	5.84	9.15	NR	NR	5.84	8.2	5.97	9.15	Harrigan et al. 2007	Berman et al. 2010
Glycine	% Dry weight	1.41	2.00	NR	NR	1.46	2.00	1.41	1.99	Berman et al. 2009	Berman et al. 2009
Histidine	% Dry weight	0.86	1.24	1	1.22	0.88	1.18	0.86	1.24	Berman et al. 2009	Berman et al. 2009
Isoleucine	% Dry weight	1.49	2.08	1.76	1.98	1.54	2.08	1.49	2.02	Berman et al. 2009	Berman et al. 2009
Leucine	% Dry weight	2.2	4.0	2.2	4.0	2.59	3.62	2.39	3.42	Berman et al. 2009	Lundry et al. 2008
Lysine	% Dry weight	2.19	3.32	2.5	2.66	2.29	2.84	2.19	3.32	Berman et al. 2009	Berman et al. 2010
Methionine	% Dry weight	0.39	0.68	0.5	0.67	0.43	0.68	0.39	0.65	Berman et al. 2009	Berman et al. 2009
Phenylalanine	% Dry weight	1.6	2.44	1.6	2.08	1.63	2.35	1.62	2.44	Berman et al. 2009	Berman et al. 2009
Proline	% Dry weight	1.63	2.28	NR	NR	1.69	2.28	1.63	2.25	Berman et al. 2009	Berman et al. 2009
Serine	% Dry weight	1.11	2.48	NR	NR	1.11	2.48	1.63	2.42	Berman et al. 2009	Lundry et al. 2008
Threonine	% Dry weight	1.14	1.89	1.4	1.89	1.14	1.86	1.28	1.74	Berman et al. 2009	Berman et al. 2009
Tryptophan	% Dry weight	0.30	0.67	0.51	0.67	0.356	0.502	0.30	0.63	Lundry et al. 2008	Padgett et al. 1996
Tyrosine	% Dry weight	0.79	1.61	NR	NR	1.02	1.61	0.79	1.59	Berman et al. 2009	Padgett et al. 1996
Valine	% Dry weight	1.5	2.44	1.5	2.44	1.6	2.2	1.57	2.13	Berman et al. 2009	Berman et al. 2009

<sup>a</sup> See References section for literature cited; NR = Not Reported.

Appendix B Table 4. Literature ranges for soybean seed: fatty acids.

Analyte	Units	Combined Range		OECD 2001 <sup>a</sup>		ILSI 2010 <sup>a</sup>		Literature		Literature Citations <sup>a</sup>	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
8:0 Caprylic	% of total fatty acid	<LOQ	0.148	NR	NR	<LOQ	0.148	ND	ND	Harrigan et al. 2007	Harrigan et al. 2007
10:0 Capric	% of total fatty acid	ND	0.27	NR	NR	ND	ND	ND	0.27	Harrigan et al. 2007	Berman et al. 2009
12:0 Lauric	% of total fatty acid	<LOQ	0.132	NR	NR	<LOQ	0.132	ND	ND	Harrigan et al. 2007	Harrigan et al. 2007
14:0 Myristic	% of total fatty acid	<LOQ	0.238	NR	NR	<LOQ	0.238	ND	0.097	Harrigan et al. 2007	Berman et al. 2009
14:1 Myristoleic	% of total fatty acid	<LOQ	0.125	NR	NR	<LOQ	0.125	ND	ND	Harrigan et al. 2007	Harrigan et al. 2007
15:0 Pentadecanoic	% of total fatty acid	ND	ND	NR	NR	ND	ND	ND	ND	Harrigan et al. 2007	Harrigan et al. 2007
15:1 Pentadecenoic	% of total fatty acid	ND	ND	NR	NR	ND	ND	ND	ND	Harrigan et al. 2007	Harrigan et al. 2007
16:0 Palmitic	% of total fatty acid	9.55	15.77	NR	NR	9.55	15.77	9.80	12.63	Berman et al. 2009	Berman et al. 2009
16:1 Palmitoleic	% of total fatty acid	<LOQ	0.194	NR	NR	<LOQ	0.194	ND	0.14	Harrigan et al. 2007	Berman et al. 2009
17:0 Heptadecanoic	% of total fatty acid	<LOQ	0.146	NR	NR	<LOQ	0.146	ND	0.13	Harrigan et al. 2007	Berman et al. 2009
17:1 Heptadecenoic	% of total fatty acid	<LOQ	0.087	NR	NR	<LOQ	0.087	ND	0.064	Harrigan et al. 2007	Berman et al. 2009
18:0 Stearic	% of total fatty acid	2.59	5.88	NR	NR	2.70	5.88	2.59	5.50	Berman et al. 2010	Berman et al. 2009
18:1 Oleic	% of total fatty acid	14.3	45.68	NR	NR	14.3	32.2	15.80	45.68	Harrigan et al. 2007	Berman et al. 2010
18:2 Linoleic	% of total fatty acid	35.36	58.8	NR	NR	42.3	58.8	35.36	57.72	Berman et al. 2010	Berman et al. 2009
18:3 Linolenic	% of total fatty acid	3	12.52	NR	NR	3	12.52	4.27	9.60	Berman et al. 2009	Berman et al. 2009
18:3 $\gamma$ -Linolenic	% of total fatty acid	ND	ND	NR	NR	ND	ND	ND	ND	Harrigan et al. 2007	Harrigan et al. 2007
20:0 Arachidic	% of total fatty acid	0.163	0.57	NR	NR	0.163	0.482	0.25	0.57	Harrigan et al. 2007	Berman et al. 2009
20:1 Eicosenoic	% of total fatty acid	<LOQ	0.350	NR	NR	<LOQ	0.350	0.13	0.35	Berman et al. 2009	Berman et al. 2010
20:2 Eicosadienoic	% of total fatty acid	<LOQ	0.245	NR	NR	<LOQ	0.245	ND	0.065	Harrigan et al. 2007	Berman et al. 2010
20:3 Eicosatrienoic	% of total fatty acid	ND	ND	NR	NR	ND	ND	ND	ND	Harrigan et al. 2007	Harrigan et al. 2007
20:4 Arachidonic	% of total fatty acid	ND	ND	NR	NR	ND	ND	ND	ND	Harrigan et al. 2007	Harrigan et al. 2007
22:0 Behenic	% of total fatty acid	0.277	0.595	NR	NR	0.277	0.595	0.28	0.59	Harrigan et al. 2007	Berman et al. 2009

<sup>a</sup> See References section for literature cited; <LOQ = Less than Limit of Quantitation; ND = Not Detected; NR = Not Reported.

Appendix B Table 5. Literature ranges for soybean seed: vitamins.

Analyte	Units	Combined Range		OECD 2001 <sup>a</sup>		ILSI 2010 <sup>a</sup>		Literature		Literature Citations <sup>a</sup>	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Vitamin A (β-Carotene)	mg/kg Dry weight	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Vitamin B <sub>1</sub> (Thiamine HCl)	mg/kg Dry weight	1.01	2.54	NR	NR	1.01	2.54	NR	NR	NR	NR
Vitamin B <sub>2</sub> (Riboflavin)	mg/kg Dry weight	1.90	3.21	NR	NR	1.90	3.21	NR	NR	NR	NR
Vitamin B <sub>3</sub> (Niacin)	mg/kg Dry weight	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Vitamin B <sub>5</sub> (Pantothenic Acid)	mg/kg Dry weight	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Vitamin B <sub>6</sub> (Pyridoxine HCl)	mg/kg Dry weight	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Vitamin B <sub>9</sub> (Folic Acid)	mg/kg Dry weight	2.386	4.709	NR	NR	2.386	4.709	NR	NR	NR	NR
Vitamin C (Ascorbic Acid)	mg/kg Dry weight	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Vitamin E (α-Tocopherol)	mg/kg Dry weight	0.108	61.693	NR	NR	1.934	61.693	0.108	48.0	Berman et al. 2010	Lundry et al. 2008
β-Tocopherol	mg/kg Dry weight	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
γ-Tocopherol	mg/kg Dry weight	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
δ-Tocopherol	mg/kg Dry weight	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Total Tocopherol	mg/kg Dry weight	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

<sup>a</sup> See References section for literature cited; NR = Not Reported.

Appendix B Table 6. Literature ranges for soybean seed: bioactives.

Analyte	Units	Combined Range		OECD 2001 <sup>a</sup>		ILSI 2010 <sup>a</sup>		Literature		Literature Citations <sup>a</sup>	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Lectin	HU/mg Protein Dry weight	37	323	37	323	NR	NR	NR	NR	NR	NR
Phytic Acid	% Dry weight	0.41	2.74	1	2.74	0.634	1.96	0.41	2.68	Lundry et al. 2008	Berman et al. 2010
Raffinose	% Dry weight	0.212	1.62	NR	NR	0.212	0.661	0.22	1.62	Harrigan et al. 2007	Berman et al. 2009
Stachyose	% Dry weight	1.21	6.1 <sup>b</sup>	NR	NR	1.21	3.5	1.52	6.1 <sup>b</sup>	Harrigan et al. 2007	Harrigan et al. 2010
Trypsin Inhibitor	TIU/mg Dry weight	18.14	118.68	NR	NR	19.59	118.68	18.14	75.5	Berman et al. 2009	McCann et al. 2005
Total Daidzein Equivalent	mcg/g Dry weight	25	2453.5	NR	NR	60	2453.5	25	2099.75	McCann et al. 2005	Berman et al. 2010
Total Genistein Equivalent	mcg/g Dry weight	28	2837.2	NR	NR	144.3	2837.2	28	2600.70	McCann et al. 2005	Harrigan et al. 2007
Total Glycitein Equivalent	mcg/g Dry weight	15.3	349.19	NR	NR	15.3	310.0	45	349.19	McCann et al. 2005	Harrigan et al. 2007

<sup>a</sup> See References section for literature cited; NR = Not Reported.

<sup>b</sup> Maximum value for stachyose is a mean value reported from the literature, all other records are individual values.

Appendix C— Covance Analytical Sub-Report for Event DAS-44406-6 (Covance Study ID  
8233-765, 811 pages)