



Title

**Production of Raw Agricultural Commodities (Grain) of Transgenic
Event FG72 Soybeans from Multiple Field Trials, USA, 2008**

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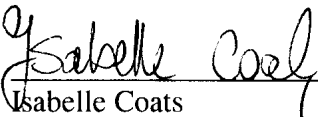
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TABLE OF CONTENTS

TITLE PAGE	1
STATEMENT OF NO DATA CONFIDENTIALITY CLAIMS	2
APPROVALS PAGE	3
TABLE OF CONTENTS	4
SUMMARY	5
1. INTRODUCTION	6
2. FIELD WORK	6
3. ANALYTICAL (CERTIFICATE OF ANALYSIS).....	6
4. RESULTS AND DISCUSSION	7
5. CONCLUSIONS	7

Appendices

Appendix 1	Field Trial Summary	8
Appendix 2	Certificate of Analysis.....	29

The last page of this report is number 29.



SUMMARY

Production of Raw Agricultural Commodities (Grain) of Transgenic Event FG72 Soybeans from Multiple Field Trials, USA, 2008

Soybean plants containing the transgenic event FG72 and soybean plants representing the non-transgenic (non-transformed) counterpart "Jack" were grown in the field in the Midwestern USA in 2008. The FG72 transformation event contains the stably integrated gene *2mepsps* which encodes the 2mEPSPS protein, and the *hppd* gene which encodes the HPPD protein. The 2mEPSPS and HPPD proteins confer tolerance to the herbicides glyphosate and isoxaflutole (IFT), respectively.

Field trials were established at 10 locations in the states of Iowa, Illinois, Indiana and Missouri. Nine plots comprising six transgenic plots and three non-transgenic plots were established in each trial. The plots of each field trial were randomized at each location. Three of the six transgenic plots at each site were sprayed with glyphosate and IFT herbicides. Three additional plots containing commercial conventional (non-transgenic) soybeans were also planted at each trial site. These individual plots were not randomized at the trial sites and were added to produce comparison samples and data in support of registration activities.

Samples of mature soybean grain (seed) were obtained from the plots of each field trial. These were shipped to the BioAnalytics laboratories of Bayer CropScience in Research Triangle Park, NC.



1. INTRODUCTION

Soybean plants containing the transgenic event FG72 and soybean plants representing the non-transgenic (non-transformed) counterpart “Jack” were grown in the field for Bayer CropScience by M.S. Technologies, LLC in 2008. The FG72 transformation event contains the stably integrated gene *2mepsps* which encodes the 2mEPSPS protein, and the *hppd* gene which encodes the HPPD protein. The genes were introduced by direct gene transfer. The 2mEPSPS and HPPD proteins confer tolerance to the herbicides glyphosate and isoxaflutole (IFT), respectively.

The objective of this study was to produce samples of soybean grain (seed) that were suitable for analysis in support of planned regulatory submissions.

2. FIELD WORK

Field trials were conducted in EPA Region V in Iowa, Illinois, Indiana and Missouri, which are typical soybean growing regions of the Midwestern United States. The plants in this study were grown under conditions typical of production practices for Group II maturity soybeans. There were three non-transgenic plots (Regimen A) and six transgenic plots (Regimen B and C) at each test site. The plots were randomized at each trial site. The Regimen A plots were planted with the non-transgenic counterpart variety “Jack” soybeans. The Regimen B and C plots were planted with the transgenic event FG72 soybeans. Three additional plots (Regimen D, E and F) were planted with commercial conventional (non-transgenic) soybeans for reference (Stine® 2686-6, Stine 2788, and Stine 3000-0, respectively). Thus there were 12 plots total at each trial site.

The Regimen C transgenic event FG72 plots were sprayed with isoxaflutole herbicide at a target rate of 70 grams ai/Ha and with glyphosate herbicide at a target rate of 1060 grams ai/Ha, and the other plots were not treated with these herbicides. Ammonium sulfate at 2850 grams/Ha was added to the spray mixture for the Regimen C herbicides. Application of the herbicides was made to the Regimen C plants as a foliar spray at about the V4-V5 growth stage. The herbicide applications were made by Bayer CropScience personnel according to Bayer CropScience protocol HD08NARJX5. To keep the site weed-free, a conventional soil-applied herbicide was sprayed after planting but prior to soybean emergence to all the plots. This herbicide treatment was pendimethalin (1060 grams ai per ha), except for trial 05 in which metolachlor (1880 gm ai/Ha) was used.

Soybean grain was obtained from each test plot at maturity by M.S. Technologies, LLC field personnel. A representative sample of grain from each plot was shipped to the BioAnalytics laboratories of Bayer CropScience in Research Triangle Park, NC, USA.

Additional field production details are provided in Appendix 1.

3. ANALYTICAL (CERTIFICATE OF ANALYSIS)

A Certificate of Analysis (COA) was prepared by MS Technologies, LLC for the Jack and FG72 seed lots used for planting in this study. Identity and purity of the transgenic event FG72 seed



and the corresponding non-transgenic seed were confirmed to be acceptable for use in this study. A copy of the COA is attached in Appendix 2.

4. RESULTS AND DISCUSSION

Soybean grain (seed) samples were harvested from each of the field plots established in this study. Samples of soybean grain from each plot of the ten field trials were shipped to the BioAnalytics laboratories of Bayer CropScience in Research Triangle Park, NC, USA on November 10, 2008.

5. CONCLUSIONS

Soybeans were successfully grown and harvested from all of the field locations in this study. Adequate samples were obtained from each of the field plots to provide material for analysis (to be conducted under separate protocol). Agronomic data were also obtained from each field trial, and these will be summarized in a separate report.

Appendix 1 Trial Details

Ten field trials were established for the transgenic event FG72 and non-transgenic counterpart soybeans in 2008. The location summary information is shown in Table A1-1. Individual field trial summaries follow after Table A1-1.

Table A1-1 Trial Site Information

Trial Number	Nearest Town	County	State	EPA Region	Principal Field Investigator
01	Marcus	Cherokee	IA	V	Justin Mason
02	Iowa Falls	Hardin	IA	V	Justin Mason
03	Glidden	Greene	IA	V	Justin Mason
04	Perry	Dallas	IA	V	Justin Mason
05	Adel	Dallas	IA	V	Justin Mason
06	Winterset	Madison	IA	V	Justin Mason
07	Osborn	Clinton	MO	V	Justin Mason
08	Fithian	Vermillion	IL	V	Justin Mason
09	Sharpsville	Tipton	IN	V	Justin Mason
10	Mediapolis	Des Moines	IA	V	Justin Mason



Trial 01

The Principal Field Investigator (PFI) was Justin Mason of M.S. Technologies, LLC, 22555 Laredo Trail, Adel, IA 50003. The trial was planted near Marcus, Iowa in Cherokee County on May 17, 2008, in Galoa silty clay loam soil. Nine replicated test plots and three non-replicated reference plots were established in the field trial. The three Regimen A plots were planted with the non-transgenic counterpart soybean variety “Jack”. The three Regimen B and three Regimen C plots were planted with transgenic event FG72 soybeans. The Regimen C plots were sprayed with isoxaflutole (IFT) and glyphosate herbicides. Single test plots of commercial conventional (non-transgenic) soybeans Stine 2686-6, Stine 2788 and Stine 3000-0 (Regimens D, E and F, respectively) were also included in the field trial to obtain samples for reference. The test plots were each 15 ft by 20 ft and contained 6 rows of soybeans spaced 30 inches apart. The plots were separated from each other by 10 ft and separated from any other soybean plots or fields by at least 20 ft. Fertilization and normal cultural practices were carried out by test site personnel. The plots received no irrigation during the growing period. Maximum and minimum air temperatures were recorded at the trial site. Rainfall amounts were recorded in Orange City, IA, located 13 miles NW of the trial. The weather data are summarized by month in table A1-3.

The randomized placement of the replicated field plots for trial 01 is shown in the following diagram, where A is the non-transgenic counterpart “Jack” Regimen, B is the unsprayed transgenic event FG72 Regimen and C is the sprayed transgenic event FG72 Regimen. Buffer areas between the plots are not shown in the diagram. The positions are shown relative to an observer facing north. Row directions are north – south.

D	E	F
C3	A3	B3
B2	C2	A2
A1	B1	C1

Conventional herbicide treatments were made to the trial plots prior to soybean emergence to provide weed control. The Regimen C transgenic event FG72 plots were treated with isoxaflutole and glyphosate herbicides at about the V4-V5 growth stage.

The soybeans were harvested from the plots on November 3, 2008, following M.S. Technologies Soybean Protocols for USDA Regulated Material. Samples were obtained from all of the test plots. The grain was placed into seed storage in the Adel Regulatory Warehouse of M.S. Technologies, LLC on November 4, 2008.

Table A1-2 Summary Table, Trial 01

Crop: Soybeans	Variety: Jack (non-transgenic); Event FG72 (transgenic); Stine 2686-6, Stine 2788 and Stine 3000-0 (commercial conventional)	Source: M.S. Technologies, LLC
Date planted: May 17, 2008		
Date of pre herbicide application: May 24, 2008		
Date of emergence: : May 30, 2008		
Date of foliar herbicide application: June 20, 2008		
Number of Replications: 3 (Regimens A, B and C); 1 (Regimens D, E and F)		
Plot Size: 15 x 20 ft		
Irrigation: None		
Sampling Date: November 3, 2008		
Storage after Harvest: Seed Warehouse		

Table A1-3 Weather and Irrigation Data Summary Table, Trial 01

Month	2008 Max. Air Temp. (Mean, °F)	2008 Min. Air Temp. (Mean, °F)	2008 Rainfall (in)	2008 Irrigation (in)
May*	75.2	49.5	3.2	0
June	83.0	55.9	4.3	0
July	89.0	61.2	2.0	0
August	86.8	56.1	0.6	0
September	76.9	48.5	1.2	0
October	63.4	37.2	4.0	0

* May data only include May 17 – May 31, 2008 (starting on date of planting).

Table A1-4 Sample Identification, Trial 01

Field Sample Number	Sample Description	Regimen	Stage of Growth
HT08SOY002-01-11	Grain (Seeds)	A1 (Jack)	Maturity
HT08SOY002-01-12	Grain (Seeds)	A2 (Jack)	Maturity
HT08SOY002-01-13	Grain (Seeds)	A3 (Jack)	Maturity
HT08SOY002-01-21	Grain (Seeds)	B1 (FG72 untreated)	Maturity
HT08SOY002-01-22	Grain (Seeds)	B2 (FG72 untreated)	Maturity
HT08SOY002-01-23	Grain (Seeds)	B3 (FG72 untreated)	Maturity
HT08SOY002-01-31	Grain (Seeds)	C1 (FG72 treated)	Maturity
HT08SOY002-01-32	Grain (Seeds)	C2 (FG72 treated)	Maturity
HT08SOY002-01-33	Grain (Seeds)	C3 (FG72 treated)	Maturity
HT08SOY002-01-41	Grain (Seeds)	D (Stine 2686-6 control)	Maturity
HT08SOY002-01-42	Grain (Seeds)	E (Stine 2788 control)	Maturity
HT08SOY002-01-43	Grain (Seeds)	F (Stine 3000-0 control)	Maturity



Trial 02

The Principal Field Investigator (PFI) was Justin Mason of M.S. Technologies, LLC, 22555 Laredo Trail, Adel, IA 50003. The trial was planted near Iowa Falls, Iowa in Hardin County on May 20, 2008, in Harps Loam, Clarion Loam, Webster Nicollet type soil. Nine replicated test plots and three non-replicated reference plots were established in the field trial. The three Regimen A plots were planted with the non-transgenic counterpart soybean variety “Jack”. The three Regimen B and three Regimen C plots were planted with transgenic event FG72 soybeans. The Regimen C plots were sprayed with isoxaflutole (IFT) and glyphosate herbicides. Single test plots of commercial conventional (non-transgenic) soybeans; Stine 2686-6, Stine 2788 and Stine 3000-0 (Regimens D, E and F, respectively) were also included in the field trial to obtain samples for reference. The test plots were each 15 ft by 20 ft and contained 6 rows of soybeans spaced 30 inches apart. The plots were separated from each other by 10 ft and separated from any other soybean plots or fields by at least 20 ft. Fertilization and normal cultural practices were carried out by test site personnel. The plots received no irrigation during the growing period. Maximum and minimum air temperatures were recorded at the trial site. Rainfall amounts were recorded five miles NW of the trial. The weather data are summarized by month in table A1-6.

The randomized placement of the replicated field plots for trial 02 is shown in the following diagram, where A is the non-transgenic counterpart “Jack” Regimen, B is the unsprayed transgenic event FG72 Regimen and C is the sprayed transgenic event FG72 Regimen. Buffer areas between the plots are not shown in the diagram. The positions are shown relative to an observer facing north. Row directions are north – south.

A3	E	F
C2	B3	C3
B1	A2	B2
D	C1	A1

Conventional herbicide treatments were made to the trial plots prior to soybean emergence to provide weed control. The Regimen C transgenic event FG72 plots were treated with isoxaflutole and glyphosate herbicides at about the V4-V5 growth stage.

The soybeans were harvested from the plots on November 2, 2008, following M.S. Technologies Soybean Protocols for USDA Regulated Material. Samples were obtained from all of the test plots. The grain was placed into seed storage in the Adel Regulatory Warehouse of M.S. Technologies, LLC on November 3, 2008.

Table A1-5 Summary Table, Trial 02

Crop: Soybeans	Variety: Jack (non-transgenic); Event FG72 (transgenic); Stine 2686-6, Stine 2788 and Stine 3000-0 (commercial conventional)	Source: M.S. Technologies, LLC
Date planted: May 20, 2008		
Date of pre herbicide application: May 22, 2008		
Date of emergence: : June 1, 2008		
Date of foliar herbicide application: June 19, 2008		
Number of Replications: 3 (Regimens A, B and C); 1 (Regimens D, E and F)		
Plot Size: 15 x 20 ft		
Irrigation: None		
Sampling Date: November 2, 2008		
Storage after Harvest: Seed Warehouse		

Table A1-6 Weather and Irrigation Data Summary Table, Trial 02

Month	2008 Max. Air Temp. (Mean, °F)	2008 Min. Air Temp. (Mean, °F)	2008 Rainfall (in)**	2008 Irrigation (in)
May*	72.4	48.4	0	0
June	81.4	57.2	0	0
July	86.2	61.8	0	0
August	87.1	53.5	0.88	0
September	84.3	44.4	5.04	0
October	63.7	32.6	9.80	0

* May data only include May 20 – May 31, 2008.

** Rainfall data reported were incomplete in May, June and July.

Table A1-7 Sample Identification, Trial 02

Field Sample Number	Sample Description	Regimen	Stage of Growth
HT08SOY002-02-11	Grain (Seeds)	A1 (Jack)	Maturity
HT08SOY002-02-12	Grain (Seeds)	A2 (Jack)	Maturity
HT08SOY002-02-13	Grain (Seeds)	A3 (Jack)	Maturity
HT08SOY002-02-21	Grain (Seeds)	B1 (FG72 untreated)	Maturity
HT08SOY002-02-22	Grain (Seeds)	B2 (FG72 untreated)	Maturity
HT08SOY002-02-23	Grain (Seeds)	B3 (FG72 untreated)	Maturity
HT08SOY002-02-31	Grain (Seeds)	C1 (FG72 treated)	Maturity
HT08SOY002-02-32	Grain (Seeds)	C2 (FG72 treated)	Maturity
HT08SOY002-02-33	Grain (Seeds)	C3 (FG72 treated)	Maturity
HT08SOY002-02-41	Grain (Seeds)	D (Stine 2686-6 control)	Maturity
HT08SOY002-02-42	Grain (Seeds)	E (Stine 2788 control)	Maturity
HT08SOY002-02-43	Grain (Seeds)	F (Stine 3000-0 control)	Maturity



Trial 03

The Principal Field Investigator (PFI) was Justin Mason of M.S. Technologies, LLC, 22555 Laredo Trail, Adel, IA 50003. The trial was planted near Glidden, Iowa in Greene County on May 19, 2008, in soil type 138B, 55. Nine replicated test plots and three non-replicated reference plots were established in the field trial. The three Regimen A plots were planted with the non-transgenic counterpart soybean variety “Jack”. The three Regimen B and three Regimen C plots were planted with transgenic event FG72 soybeans. The Regimen C plots were sprayed with isoxaflutole (IFT) and glyphosate herbicides. Single test plots of commercial conventional (non-transgenic) soybeans Stine 2686-6, Stine 2788 and Stine 3000-0 (Regimens D, E and F, respectively) were also included in the field trial to obtain samples for reference. The test plots were each 15 ft by 20 ft and contained 6 rows of soybeans spaced 30 inches apart. The plots were separated from each other by 10 ft and separated from any other soybean plots or fields by at least 20 ft. Fertilization and normal cultural practices were carried out by test site personnel. The plots received no irrigation during the growing period. Maximum and minimum air temperatures were recorded at the trial site. Rainfall amounts were not reported. The weather data are summarized by month in table A1-9.

The randomized placement of the replicated field plots for trial 03 is shown in the following diagram, where A is the non-transgenic counterpart “Jack” Regimen, B is the unsprayed transgenic event FG72 Regimen and C is the sprayed transgenic event FG72 Regimen. Buffer areas between the plots are not shown in the diagram. The positions are shown relative to an observer facing north. Row directions are north – south.

D	E	F
B3	A3	C3
A2	C2	B2
C1	B1	A1

Conventional herbicide treatments were made to the trial plots prior to soybean emergence to provide weed control. The Regimen C transgenic event FG72 plots were treated with isoxaflutole and glyphosate herbicides at about the V4-V5 growth stage.

The soybeans were harvested from the plots on October 10, 2008, following M.S. Technologies Soybean Protocols for USDA Regulated Material. Samples were obtained from all of the test plots. The grain was placed into seed storage in the Adel Regulatory Warehouse of M.S. Technologies, LLC on the day of harvest.

Table A1-8 Summary Table, Trial 03

Crop: Soybeans	Variety: Jack (non-transgenic); Event FG72 (transgenic); Stine 2686-6, Stine 2788 and Stine 3000-0 (commercial conventional)	Source: M.S. Technologies, LLC
Date planted: May 19, 2008		
Date of pre herbicide application: May 22, 2008		
Date of emergence: : May 30, 2008		
Date of foliar herbicide application: June 19, 2008		
Number of Replications: 3 (Regimens A, B and C); 1 (Regimens D, E and F)		
Plot Size: 15 x 20 ft		
Irrigation: None		
Sampling Date: October 10, 2008		
Storage after Harvest: Seed Warehouse		

Table A1-9 Weather and Irrigation Data Summary Table, Trial 03

Month	2008 Max. Air Temp. (Mean, °F)	2008 Min. Air Temp. (Mean, °F)	2008 Rainfall (in)	2008 Irrigation (in)
May*	73.0	51.6	**	0
June	81.9	59.3	**	0
July	85.8	63.7	**	0
August	83.0	57.4	**	0
September	75.5	51.7	**	0
October*	75.9	46.2	**	0

* Weather data reported only from May 19 through October 10, 2008.

** No rainfall data were reported.

Table A1-10 Sample Identification, Trial 03

Field Sample Number	Sample Description	Regimen	Stage of Growth
HT08SOY002-03-11	Grain (Seeds)	A1 (Jack)	Maturity
HT08SOY002-03-12	Grain (Seeds)	A2 (Jack)	Maturity
HT08SOY002-03-13	Grain (Seeds)	A3 (Jack)	Maturity
HT08SOY002-03-21	Grain (Seeds)	B1 (FG72 untreated)	Maturity
HT08SOY002-03-22	Grain (Seeds)	B2 (FG72 untreated)	Maturity
HT08SOY002-03-23	Grain (Seeds)	B3 (FG72 untreated)	Maturity
HT08SOY002-03-31	Grain (Seeds)	C1 (FG72 treated)	Maturity
HT08SOY002-03-32	Grain (Seeds)	C2 (FG72 treated)	Maturity
HT08SOY002-03-33	Grain (Seeds)	C3 (FG72 treated)	Maturity
HT08SOY002-03-41	Grain (Seeds)	D (Stine 2686-6 control)	Maturity
HT08SOY002-03-42	Grain (Seeds)	E (Stine 2788 control)	Maturity
HT08SOY002-03-43	Grain (Seeds)	F (Stine 3000-0 control)	Maturity



Trial 04

The Principal Field Investigator (PFI) was Justin Mason of M.S. Technologies, LLC, 22555 Laredo Trail, Adel, IA 50003. The trial was planted near Perry, Iowa in Dallas County on May 21, 2008, in a soil type of 81 % Nicollet Loam and 19% Canisteo Loam. Nine replicated test plots and three non-replicated reference plots were established in the field trial. The three Regimen A plots were planted with the non-transgenic counterpart soybean variety “Jack”. The three Regimen B and three Regimen C plots were planted with transgenic event FG72 soybeans. The Regimen C plots were sprayed with isoxaflutole (IFT) and glyphosate herbicides. Single test plots of commercial conventional (non-transgenic) soybeans; Stine 2686-6, Stine 2788 and Stine 3000-0 (Regimens D, E and F, respectively) were also included in the field trial to obtain samples for reference. The test plots were each 15 ft by 20 ft and contained 6 rows of soybeans spaced 30 inches apart. The plots were separated from each other by 10 ft and separated from any other soybean plots or fields by at least 20 ft. Fertilization and normal cultural practices were carried out by test site personnel. The plots received no irrigation during the growing period. Maximum and minimum air temperatures were recorded at Perry, Iowa, approximately 2 miles southeast of the plots. Rainfall amounts were not reported. The weather data are summarized by month in table A1-12.

The randomized placement of the replicated field plots for trial 04 is shown in the following diagram, where A is the non-transgenic counterpart “Jack” Regimen, B is the unsprayed transgenic event FG72 Regimen and C is the sprayed transgenic event FG72 Regimen. Buffer areas between the plots are not shown in the diagram. The positions are shown relative to an observer facing north. Row directions are north – south.

D	E	F
C3	A3	B3
C2	B2	A2
B1	A1	C1

Conventional herbicide treatments of Prowl (pendimethalin, 1060 gm ai/ha) were made to the trial plots prior to soybean emergence to provide weed control. The Regimen C transgenic event FG72 plots were treated with isoxaflutole and glyphosate herbicides at about the V4-V5 growth stage.

The soybeans were harvested from the plots on October 6, 2008, following M.S. Technologies Soybean Protocols for USDA Regulated Material. Samples were obtained from all of the test



plots. The grain was placed into seed storage in the Adel Regulatory Warehouse of M.S. Technologies, LLC on the day of harvest.

Table A1-11 Summary Table, Trial 04

Crop: Soybeans	Variety: Jack (non-transgenic); Event FG72 (transgenic); Stine 2686-6, Stine 2788 and Stine 3000-0 (commercial conventional)	Source: M.S. Technologies, LLC
Date planted: May 21, 2008		
Date of pre herbicide application: May 22, 2008		
Date of emergence: June 3, 2008		
Date of foliar herbicide application: June 30, 2008		
Number of Replications: 3 (Regimens A, B and C); 1 (Regimens D, E and F)		
Plot Size: 15 x 20 ft		
Irrigation: None		
Sampling Date: October 6, 2008		
Storage after Harvest: Seed Warehouse		

Table A1-12 Weather and Irrigation Data Summary Table, Trial 04

Month	2008 Max. Air Temp. (Mean, °F)	2008 Min. Air Temp. (Mean, °F)	2008 Rainfall (in)	2008 Irrigation (in)
May	71.4	51.3	**	0
June	81.4	63.3	**	0
July	85.0	67.4	**	0
August	82.8	63.2	**	0
September	75.6	56.2	**	0
October*	70.7	49.1	**	0

* Weather data reported only through October 15, 2008.

** No rainfall data were reported.

Table A1-13 Sample Identification, Trial 04

Field Sample Number	Sample Description	Regimen	Stage of Growth
HT08SOY002-04-11	Grain (Seeds)	A1 (Jack)	Maturity
HT08SOY002-04-12	Grain (Seeds)	A2 (Jack)	Maturity
HT08SOY002-04-13	Grain (Seeds)	A3 (Jack)	Maturity
HT08SOY002-04-21	Grain (Seeds)	B1 (FG72 untreated)	Maturity
HT08SOY002-04-22	Grain (Seeds)	B2 (FG72 untreated)	Maturity
HT08SOY002-04-23	Grain (Seeds)	B3 (FG72 untreated)	Maturity
HT08SOY002-04-31	Grain (Seeds)	C1 (FG72 treated)	Maturity
HT08SOY002-04-32	Grain (Seeds)	C2 (FG72 treated)	Maturity
HT08SOY002-04-33	Grain (Seeds)	C3 (FG72 treated)	Maturity
HT08SOY002-04-41	Grain (Seeds)	D (Stine 2686-6 control)	Maturity
HT08SOY002-04-42	Grain (Seeds)	E (Stine 2788 control)	Maturity
HT08SOY002-04-43	Grain (Seeds)	F (Stine 3000-0 control)	Maturity



Trial 05

The Principal Field Investigator (PFI) was Justin Mason of M.S. Technologies, LLC, 22555 Laredo Trail, Adel, IA 50003. The trial was planted near Adel, Iowa in Dallas County on May 8, 2008, in Clarion Loam soil. Nine replicated test plots and three non-replicated reference plots were established in the field trial. The three Regimen A plots were planted with the non-transgenic counterpart soybean variety “Jack”. The three Regimen B and three Regimen C plots were planted with transgenic event FG72 soybeans. The Regimen C plots were sprayed with isoxaflutole (IFT) and glyphosate herbicides. Single test plots of commercial conventional (non-transgenic) soybeans; Stine 2686-6, Stine 2788 and Stine 3000-0 (Regimens D, E and F, respectively) were also included in the field trial to obtain samples for reference. The test plots were each 15 ft by 20 ft and contained 6 rows of soybeans spaced 30 inches apart. The plots were separated from each other by 10 ft and separated from any other soybean plots or fields by at least 20 ft. Fertilization and normal cultural practices were carried out by test site personnel. The plots received no irrigation during the growing period. Rainfall amounts and maximum and minimum air temperatures were recorded at Stine Seed Company in Adel, Iowa, approximately 5 miles east of the plots. The weather data are summarized by month in table A1-15.

The randomized placement of the replicated field plots for trial 05 is shown in the following diagram, where A is the non-transgenic counterpart “Jack” Regimen, B is the unsprayed transgenic event FG72 Regimen and C is the sprayed transgenic event FG72 Regimen. Buffer areas between the plots are not shown in the diagram. The positions are shown relative to an observer facing north. Row directions are north – south.

D	E	F
C3	B3	A3
B2	C2	A2
C1	A1	B1

Conventional herbicide treatments were made to the trial plots prior to soybean emergence to provide weed control. The PRE herbicide treatment was Dual II Magnum, (active ingredient; metolachlor) applied as 1880 grams of active per ha. The Regimen C transgenic event FG72 plots were treated with isoxaflutole and glyphosate herbicides at about the V4-V5 growth stage.

The soybeans were harvested from the plots on October 3, 2008, following M.S. Technologies Soybean Protocols for USDA Regulated Material. Samples were obtained from all of the test plots. The grain was placed into seed storage in the Adel Regulatory Warehouse of M.S. Technologies, LLC on the day of harvest.

Table A1-14 Summary Table, Trial 05

Crop: Soybeans	Variety: Jack (non-transgenic); Event FG72 (transgenic); Stine 2686-6, Stine 2788 and Stine 3000-0 (commercial conventional)	Source: M.S. Technologies, LLC
Date planted: May 8, 2008		
Date of pre herbicide application: May 13, 2008		
Date of emergence: May 19, 2008		
Date of Foliar herbicide application: June 18, 2008		
Number of Replications: 3 (Regimens A, B and C); 1 (Regimens D, E and F)		
Plot Size: 15 x 20 ft		
Irrigation: None		
Sampling Date: October 3, 2008		
Storage after Harvest: Seed Warehouse		

Table A1-15 Weather and Irrigation Data Summary Table, Trial 05

Month	2008 Max. Air Temp. (Mean, °F)	2008 Min. Air Temp. (Mean, °F)	2008 Rainfall (in)	2008 Irrigation (in)
May	71.7	48.5	4.43	0
June	81.0	61.1	11.55	0
July	84.5	64.8	7.42	0
August	81.8	60.0	1.15	0
September	74.9	53.6	3.7	0
October*	68.7	47.1	1.79	0

* Weather data reported only through October 15, 2008.

Table A1-16 Sample Identification, Trial 05

Field Sample Number	Sample Description	Regimen	Stage of Growth
HT08SOY002-05-11	Grain (Seeds)	A1 (Jack)	Maturity
HT08SOY002-05-12	Grain (Seeds)	A2 (Jack)	Maturity
HT08SOY002-05-13	Grain (Seeds)	A3 (Jack)	Maturity
HT08SOY002-05-21	Grain (Seeds)	B1 (FG72 untreated)	Maturity
HT08SOY002-05-22	Grain (Seeds)	B2 (FG72 untreated)	Maturity
HT08SOY002-05-23	Grain (Seeds)	B3 (FG72 untreated)	Maturity
HT08SOY002-05-31	Grain (Seeds)	C1 (FG72 treated)	Maturity
HT08SOY002-05-32	Grain (Seeds)	C2 (FG72 treated)	Maturity
HT08SOY002-05-33	Grain (Seeds)	C3 (FG72 treated)	Maturity
HT08SOY002-05-41	Grain (Seeds)	D (Stine 2686-6 control)	Maturity
HT08SOY002-05-42	Grain (Seeds)	E (Stine 2788 control)	Maturity
HT08SOY002-05-43	Grain (Seeds)	F (Stine 3000-0 control)	Maturity



Trial 06

The Principal Field Investigator (PFI) was Justin Mason of M.S. Technologies, LLC, 22555 Laredo Trail, Adel, IA 50003. The trial was planted near Winterset, Iowa in Madison County on May 20, 2008, in Macksburg silty clay loam soil. Nine replicated test plots and three non-replicated reference plots were established in the field trial. The three Regimen A plots were planted with the non-transgenic counterpart soybean variety “Jack”. The three Regimen B and three Regimen C plots were planted with transgenic event FG72 soybeans. The Regimen C plots were sprayed with isoxaflutole (IFT) and glyphosate herbicides. Single test plots of commercial conventional (non-transgenic) soybeans; Stine 2686-6, Stine 2788 and Stine 3000-0 (Regimens D, E and F, respectively) were also included in the field trial to obtain samples for reference. The test plots were each 15 ft by 20 ft and contained 6 rows of soybeans spaced 30 inches apart. The plots were separated from each other by 10 ft and separated from any other soybean plots or fields by at least 20 ft. Fertilization and normal cultural practices were carried out by test site personnel. The plots received no irrigation during the growing period. Maximum and minimum air temperatures were recorded at the field site. Rainfall amounts were recorded at St. Marys, Iowa, located 19 miles east of the field site. The weather data are summarized by month in table A1-18.

The randomized placement of the replicated field plots for trial 06 is shown in the following diagram, where A is the non-transgenic counterpart “Jack” Regimen, B is the unsprayed transgenic event FG72 Regimen and C is the sprayed transgenic event FG72 Regimen. Buffer areas between the plots are not shown in the diagram. The positions are shown relative to an observer facing north. Row directions are north – south.

D	E	F
C3	B3	A3
A2	C2	B2
B1	C1	A1

Conventional herbicide treatments were made to the trial plots prior to soybean emergence to provide weed control. The Regimen C transgenic event FG72 plots were treated with isoxaflutole and glyphosate herbicides at about the V4-V5 growth stage.

The soybeans were harvested from the plots on October 6, 2008, following M.S. Technologies Soybean Protocols for USDA Regulated Material. Samples were obtained from all of the test plots. The grain was placed into seed storage in the Adel Regulatory Warehouse of M.S. Technologies, LLC on the day of harvest.

Table A1-17 Summary Table, Trial 06

Crop: Soybeans	Variety: Jack (non-transgenic); Event FG72 (transgenic); Stine 2686-6, Stine 2788 and Stine 3000-0 (commercial conventional)	Source: M.S. Technologies, LLC
Date planted: May 20, 2008		
Date of emergence: : June 1, 2008		
Number of Replications: 3 (Regimens A, B and C); 1 (Regimens D, E and F)		
Plot Size: 15 x 20 ft		
Irrigation: None		
Sampling Date: October 6, 2008		
Storage after Harvest: Seed Warehouse		

Table A1-18 Weather and Irrigation Data Summary Table, Trial 06

Month	2008 Max. Air Temp. (Mean, °F)	2008 Min. Air Temp. (Mean, °F)	2008 Rainfall (in)	2008 Irrigation (in)
May*	76.2	51.1	2.9	0
June	82.7	59.4	12.0	0
July	86.5	63.5	9.38	0
August	85.7	57.9	1.34	0
September	76.4	52.0	4.71	0
October*	74.5	47.0	0.61	0

* Weather data reported from May 20 to October 6, 2008.

Table A1-19 Sample Identification, Trial 06

Field Sample Number	Sample Description	Regimen	Stage of Growth
HT08SOY002-06-11	Grain (Seeds)	A1 (Jack)	Maturity
HT08SOY002-06-12	Grain (Seeds)	A2 (Jack)	Maturity
HT08SOY002-06-13	Grain (Seeds)	A3 (Jack)	Maturity
HT08SOY002-06-21	Grain (Seeds)	B1 (FG72 untreated)	Maturity
HT08SOY002-06-22	Grain (Seeds)	B2 (FG72 untreated)	Maturity
HT08SOY002-06-23	Grain (Seeds)	B3 (FG72 untreated)	Maturity
HT08SOY002-06-31	Grain (Seeds)	C1 (FG72 treated)	Maturity
HT08SOY002-06-32	Grain (Seeds)	C2 (FG72 treated)	Maturity
HT08SOY002-06-33	Grain (Seeds)	C3 (FG72 treated)	Maturity
HT08SOY002-06-41	Grain (Seeds)	D (Stine 2686-6 control)	Maturity
HT08SOY002-06-42	Grain (Seeds)	E (Stine 2788 control)	Maturity
HT08SOY002-06-43	Grain (Seeds)	F (Stine 3000-0 control)	Maturity



Trial 07

The Principal Field Investigator (PFI) was Justin Mason of M.S. Technologies, LLC, 22555 Laredo Trail, Adel, IA 50003. The trial was planted near Osborn, Missouri in Clinton County on May 29, 2008, in Haig silt loam soil. Nine replicated test plots and three non-replicated reference plots were established in the field trial. The three Regimen A plots were planted with the non-transgenic counterpart soybean variety “Jack”. The three Regimen B and three Regimen C plots were planted with transgenic event FG72 soybeans. The Regimen C plots were sprayed with isoxaflutole (IFT) and glyphosate herbicides. Single test plots of commercial conventional (non-transgenic) soybeans; Stine 2686-6, Stine 2788 and Stine 3000-0 (Regimens D, E and F, respectively) were also included in the field trial to obtain samples for reference. The test plots were each 15 ft by 20 ft and contained 6 rows of soybeans spaced 30 inches apart. The plots were separated from each other by 10 ft and separated from any other soybean plots or fields by at least 20 ft. Fertilization and normal cultural practices were carried out by test site personnel. The plots received no irrigation during the growing period. Rainfall and maximum and minimum air temperatures were recorded at Turney, MO, located 5.5 miles south of the field site. The weather data are summarized by month in table A1-21.

The randomized placement of the replicated field plots for trial 07 is shown in the following diagram, where A is the non-transgenic counterpart “Jack” Regimen, B is the unsprayed transgenic event FG72 Regimen and C is the sprayed transgenic event FG72 Regimen. Buffer areas between the plots are not shown in the diagram. The positions are shown relative to an observer facing north. Row directions are north – south.

D	E	F
B3	C3	A3
A2	B2	C2
C1	B1	A1

Conventional herbicide treatments were made to the trial plots prior to soybean emergence to provide weed control. The Regimen C transgenic event FG72 plots were treated with isoxaflutole and glyphosate herbicides at about the V4-V5 growth stage. Crop injury ratings for regimen C were 15% on 7/7/2008, 10% on 7/21/2008 and no injury, but shorter stature noted 8/4/2008.

The soybeans were harvested from the plots on October 5, 2008, following M.S. Technologies Soybean Protocols for USDA Regulated Material. The grain was harvested from three interior rows of each plot to obtain at least 5 pounds of each sample. The grain was placed into seed storage in the Adel Regulatory Warehouse of M.S. Technologies, LLC on the day of harvest.

Table A1-20 Summary Table, Trial 07

Crop: Soybeans	Variety: Jack (non-transgenic); Event FG72 (transgenic); Stine 2686-6, Stine 2788 and Stine 3000-0 (commercial conventional)	Source: M.S. Technologies, LLC
Date planted: May 29, 2008		
Date pre herbicide application: May 30, 2008		
Date of emergence: June 5, 2008		
Date of foliar herbicide application: June 30, 2008		
Number of Replications: 3 (Regimens A, B and C); 1 (Regimens D, E and F)		
Plot Size: 15 x 20 ft		
Irrigation: None		
Sampling Date: October 5, 2008		
Storage after Harvest: Seed Warehouse		

Table A1-21 Weather and Irrigation Data Summary Table, Trial 07

Month	2008 Max. Air Temp. (Mean, °F)	2008 Min. Air Temp. (Mean, °F)	2008 Rainfall (in)	2008 Irrigation (in)
May*	86.3	64.7	0.04	0
June	82.4	64.5	3.86	0
July	87.3	67.6	4.29	0
August	84.9	65.4	1.45	0
September	75.6	56.7	3.99	0
October*	72.4	49.4	0	0

* Weather data reported from May 29 to October 5, 2008.

Table A1-22 Sample Identification, Trial 07

Field Sample Number	Sample Description	Regimen	Stage of Growth
HT08SOY002-07-11	Grain (Seeds)	A1 (Jack)	Maturity
HT08SOY002-07-12	Grain (Seeds)	A2 (Jack)	Maturity
HT08SOY002-07-13	Grain (Seeds)	A3 (Jack)	Maturity
HT08SOY002-07-21	Grain (Seeds)	B1 (FG72 untreated)	Maturity
HT08SOY002-07-22	Grain (Seeds)	B2 (FG72 untreated)	Maturity
HT08SOY002-07-23	Grain (Seeds)	B3 (FG72 untreated)	Maturity
HT08SOY002-07-31	Grain (Seeds)	C1 (FG72 treated)	Maturity
HT08SOY002-07-32	Grain (Seeds)	C2 (FG72 treated)	Maturity
HT08SOY002-07-33	Grain (Seeds)	C3 (FG72 treated)	Maturity
HT08SOY002-07-41	Grain (Seeds)	D (Stine 2686-6 control)	Maturity
HT08SOY002-07-42	Grain (Seeds)	E (Stine 2788 control)	Maturity
HT08SOY002-07-43	Grain (Seeds)	F (Stine 3000-0 control)	Maturity



Trial 08

The Principal Field Investigator (PFI) was Justin Mason of M.S. Technologies, LLC, 22555 Laredo Trail, Adel, IA 50003. The trial was planted near Fithian, Illinois in Vermillion County on June 18, 2008, in Drummer silty clay loam soil. Nine replicated test plots and three non-replicated reference plots were established in the field trial. The three Regimen A plots were planted with the non-transgenic counterpart soybean variety “Jack”. The three Regimen B and three Regimen C plots were planted with transgenic event FG72 soybeans. The Regimen C plots were sprayed with isoxaflutole (IFT) and glyphosate herbicides. Single test plots of commercial conventional (non-transgenic) soybeans; Stine 2686-6, Stine 2788 and Stine 3000-0 (Regimens D, E and F, respectively) were also included in the field trial to obtain samples for reference. The test plots were each 15 ft by 20 ft and contained 6 rows of soybeans spaced 30 inches apart. The plots were separated from each other by 10 ft and separated from any other soybean plots or fields by at least 20 ft. Fertilization and normal cultural practices were carried out by test site personnel. The plots received no irrigation during the growing period. Maximum and minimum air temperatures were recorded at the field site. Rainfall was recorded at KILDANV13 NW of Danville, IL about 8 miles west of the trial site. The weather data are summarized by month in table A1-24.

The randomized placement of the replicated field plots for trial 08 is shown in the following diagram, where A is the non-transgenic counterpart “Jack” Regimen, B is the unsprayed transgenic event FG72 Regimen and C is the sprayed transgenic event FG72 Regimen. Buffer areas between the plots are not shown in the diagram. The positions are shown relative to an observer facing north. Row directions are north – south.

D	E	F
B3	A3	C3
B2	C2	A2
A1	B1	C1

Conventional herbicide treatments were made to the trial plots prior to soybean emergence to provide weed control. The Regimen C transgenic event FG72 plots were treated with isoxaflutole and glyphosate herbicides at about the V4-V5 growth stage.

The soybeans were harvested from the plots on October 22, 2008, following M.S. Technologies Soybean Protocols for USDA Regulated Material. The grain was harvested from four interior rows of each plot to obtain at least 5 pounds of each sample. The grain was placed into seed storage in the Adel Regulatory Warehouse of M.S. Technologies, LLC on the day of harvest.

Table A1-23 Summary Table, Trial 08

Crop: Soybeans	Variety: Jack (non-transgenic); Event FG72 (transgenic); Stine 2686-6, Stine 2788 and Stine 3000-0 (commercial conventional)	Source: M.S. Technologies, LLC
Date planted: June 18, 2008		
Date of pre herbicide: June 19, 2008		
Date of emergence: June 24, 2008		
Date of foliar herbicide: July 17, 2008		
Number of Replications: 3 (Regimens A, B and C); 1 (Regimens D, E and F)		
Plot Size: 15 x 20 ft		
Irrigation: None		
Sampling Date: October 22, 2008		
Storage after Harvest: Seed Warehouse		

Table A1-24 Weather and Irrigation Data Summary Table, Trial 08

Month	2008 Max. Air Temp. (Mean, °F)	2008 Min. Air Temp. (Mean, °F)	2008 Rainfall (in)	2008 Irrigation (in)
June*	86.3	58.4	1.70	0
July	88.2	61.4	5.14	0
August	87.8	57.7	1.51	0
September	82.9	54.7	5.44	0
October*	74.7	43.2	1.43	0

* Weather data reported from June 18 to October 22, 2008.

Table A1-25 Sample Identification, Trial 08

Field Sample Number	Sample Description	Regimen	Stage of Growth
HT08SOY002-08-11	Grain (Seeds)	A1 (Jack)	Maturity
HT08SOY002-08-12	Grain (Seeds)	A2 (Jack)	Maturity
HT08SOY002-08-13	Grain (Seeds)	A3 (Jack)	Maturity
HT08SOY002-08-21	Grain (Seeds)	B1 (FG72 untreated)	Maturity
HT08SOY002-08-22	Grain (Seeds)	B2 (FG72 untreated)	Maturity
HT08SOY002-08-23	Grain (Seeds)	B3 (FG72 untreated)	Maturity
HT08SOY002-08-31	Grain (Seeds)	C1 (FG72 treated)	Maturity
HT08SOY002-08-32	Grain (Seeds)	C2 (FG72 treated)	Maturity
HT08SOY002-08-33	Grain (Seeds)	C3 (FG72 treated)	Maturity
HT08SOY002-08-41	Grain (Seeds)	D (Stine 2686-6 control)	Maturity
HT08SOY002-08-42	Grain (Seeds)	E (Stine 2788 control)	Maturity
HT08SOY002-08-43	Grain (Seeds)	F (Stine 3000-0 control)	Maturity



Trial 09

The Principal Field Investigator (PFI) was Justin Mason of M.S. Technologies, LLC, 22555 Laredo Trail, Adel, IA 50003. The trial was planted near Sharpsville, Indiana in Tipton County on May 29, 2008, in silt loam/silty clay loam soil. Nine replicated test plots and three non-replicated reference plots were established in the field trial. The three Regimen A plots were planted with the non-transgenic counterpart soybean variety “Jack”. The three Regimen B and three Regimen C plots were planted with transgenic event FG72 soybeans. The Regimen C plots were sprayed with isoxaflutole (IFT) and glyphosate herbicides. Single test plots of commercial conventional (non-transgenic) soybeans; Stine 2686-6, Stine 2788 and Stine 3000-0 (Regimens D, E and F, respectively) were also included in the field trial to obtain samples for reference. The test plots were each 15 ft by 20 ft and contained 6 rows of soybeans spaced 30 inches apart. The plots were separated from each other by 10 ft and separated from any other soybean plots or fields by at least 20 ft. Fertilization and normal cultural practices were carried out by test site personnel. The plots received no irrigation during the growing period. Maximum and minimum air temperatures were recorded at the field site. Rainfall was recorded at Kokomo, Indiana about 8 miles north of the trial site. The weather data are summarized by month in table A1-27.

The randomized placement of the replicated field plots for trial 09 is shown in the following diagram, where A is the non-transgenic counterpart “Jack” Regimen, B is the unsprayed transgenic event FG72 Regimen and C is the sprayed transgenic event FG72 Regimen. Buffer areas between the plots are not shown in the diagram. The positions are shown relative to an observer facing north. Row directions are north – south.

D	E	F
B3	C3	A3
C2	A2	B2
A1	C1	B1

Conventional herbicide Prowl (pendimethalin) was applied to the trial plots prior to soybean emergence to provide weed control. The Regimen C transgenic event FG72 plots were treated with isoxaflutole and glyphosate herbicides at about the V4-V5 growth stage. Regimens A, B, D, E and F were treated with Pursuit (imazethapyr) at the V4-5 growth stage. The IFT injury was typical bleaching symptoms while the Pursuit injury was typical ALS-inhibiting herbicide symptoms of stunting, shortened internodes, and slightly distorted leaves.

The soybeans were harvested from the plots on September 28, 2008, following M.S. Technologies Soybean Protocols for USDA Regulated Material. The grain was harvested from four interior rows of each plot to obtain at least 5 pounds of each sample. The grain was placed into seed storage in the Adel Regulatory Warehouse of M.S. Technologies, LLC on the day of



harvest. The field data noted that the harvested soybeans from plots C1 and A2 were accidentally mixed, but this only affected the yield data from the two plots. Good samples were later obtained from the plots and provided to Bayer CropScience.

Table A1-26 Summary Table, Trial 09

Crop: Soybeans	Variety: Jack (non-transgenic); Event FG72 (transgenic); Stine 2686-6, Stine 2788 and Stine 3000-0 (commercial conventional)	Source: M.S. Technologies, LLC
Date planted: May 29, 2008		
Date of pre herbicide: May 30, 2008		
Date of emergence: June 6, 2008		
Date of foliar herbicide: July 7, 2008		
Number of Replications: 3 (Regimens A, B and C); 1 (Regimens D, E and F)		
Plot Size: 15 x 20 ft		
Irrigation: None		
Sampling Date: September 28, 2008		
Storage after Harvest: Seed Warehouse		

Table A1-27 Weather and Irrigation Data Summary Table, Trial 09

Month	2008 Max. Air Temp. (Mean, °F)	2008 Min. Air Temp. (Mean, °F)	2008 Rainfall (in)	2008 Irrigation (in)
May*	72.2	68.7	0.18	0
June	83.0	62.0	3.61	0
July	85.6	61.9	1.38	0
August	84.8	59.6	1.52	0
September*	82.3	55.0	1.31	0

* Weather data reported from May 29 to September 28, 2008.

Table A1-28 Sample Identification, Trial 09

Field Sample Number	Sample Description	Regimen	Stage of Growth
HT08SOY002-09-11	Grain (Seeds)	A1 (Jack)	Maturity
HT08SOY002-09-12	Grain (Seeds)	A2 (Jack)	Maturity
HT08SOY002-09-13	Grain (Seeds)	A3 (Jack)	Maturity
HT08SOY002-09-21	Grain (Seeds)	B1 (FG72 untreated)	Maturity
HT08SOY002-09-22	Grain (Seeds)	B2 (FG72 untreated)	Maturity
HT08SOY002-09-23	Grain (Seeds)	B3 (FG72 untreated)	Maturity
HT08SOY002-09-31	Grain (Seeds)	C1 (FG72 treated)	Maturity
HT08SOY002-09-32	Grain (Seeds)	C2 (FG72 treated)	Maturity
HT08SOY002-09-33	Grain (Seeds)	C3 (FG72 treated)	Maturity
HT08SOY002-09-41	Grain (Seeds)	D (Stine 2686-6 control)	Maturity
HT08SOY002-09-42	Grain (Seeds)	E (Stine 2788 control)	Maturity
HT08SOY002-09-43	Grain (Seeds)	F (Stine 3000-0 control)	Maturity



Trial 10

The Principal Field Investigator (PFI) was Justin Mason of M.S. Technologies, LLC, 22555 Laredo Trail, Adel, IA 50003. The trial was planted near Mediapolis, Iowa in Des Moines County on May 22, 2008, in Taintor silty clay loam soil. Nine replicated test plots and three non-replicated reference plots were established in the field trial. The three Regimen A plots were planted with the non-transgenic counterpart soybean variety “Jack”. The three Regimen B and three Regimen C plots were planted with transgenic event FG72 soybeans. The Regimen C plots were sprayed with isoxaflutole (IFT) and glyphosate herbicides. Single test plots of commercial conventional (non-transgenic) soybeans; Stine 2686-6, Stine 2788 and Stine 3000-0 (Regimens D, E and F, respectively) were also included in the field trial to obtain samples for reference. The test plots were each 15 ft by 20 ft and contained 6 rows of soybeans spaced 30 inches apart. The plots were separated from each other by 10 ft and separated from any other soybean plots or fields by at least 20 ft. Fertilization and normal cultural practices were carried out by test site personnel. The plots received no irrigation during the growing period. Maximum and minimum air temperatures were recorded at the field site. Rainfall was recorded at Burlington, Iowa about 17 miles south of the trial site. The weather data are summarized by month in table A1-30.

The randomized placement of the replicated field plots for trial 10 is shown in the following diagram, where A is the non-transgenic counterpart “Jack” Regimen, B is the unsprayed transgenic event FG72 Regimen and C is the sprayed transgenic event FG72 Regimen. Buffer areas between the plots are not shown in the diagram. The positions are shown relative to an observer facing north. Row directions are north – south.

D	E	F
B3	A3	C3
C2	B2	A2
A1	B1	C1

Conventional herbicide treatments were made to the trial plots prior to soybean emergence to provide weed control. The Regimen C transgenic event FG72 plots were treated with isoxaflutole and glyphosate herbicides at about the V4-V5 growth stage.

The soybeans were harvested from the plots on October 4, 2008, following M.S. Technologies Soybean Protocols for USDA Regulated Material. The grain was harvested from three interior rows of each plot to obtain at least 5 pounds of each sample. The grain was placed into seed storage in the Adel Regulatory Warehouse of M.S. Technologies, LLC on the day of harvest.



Table A1-29 Summary Table, Trial 10

Crop: Soybeans	Variety: Jack (non-transgenic); Event FG72 (transgenic); Stine 2686-6, Stine 2788 and Stine 3000-0 (commercial conventional)	Source: M.S. Technologies, LLC
Date planted: May 22, 2008		
Date of pre herbicide: May 22, 2008		
Date of emergence: June 1, 2008		
Date of foliar herbicide: June 26, 2008		
Number of Replications: 3 (Regimens A, B and C); 1 (Regimens D, E and F)		
Plot Size: 15 x 20 ft		
Irrigation: None		
Sampling Date: October 4, 2008		
Storage after Harvest: Seed Warehouse		

Table A1-30 Weather and Irrigation Data Summary Table, Trial 10

Month	2008 Max. Air Temp. (Mean, °F)	2008 Min. Air Temp. (Mean, °F)	2008 Rainfall (in)	2008 Irrigation (in)
May*	75.0	53.3	1.17	0
June	82.6	61.1	6.37	0
July	85.0	62.8	5.50	0
August	83.1	59.3	2.71	0
September	76.8	56.1	8.74	0
October*	72.0	42.9	0	0

* Weather data reported from May 22 to October 4, 2008.

Table A1-31 Sample Identification, Trial 10

Field Sample Number	Sample Description	Regimen	Stage of Growth
HT08SOY002-10-11	Grain (Seeds)	A1 (Jack)	Maturity
HT08SOY002-10-12	Grain (Seeds)	A2 (Jack)	Maturity
HT08SOY002-10-13	Grain (Seeds)	A3 (Jack)	Maturity
HT08SOY002-10-21	Grain (Seeds)	B1 (FG72 untreated)	Maturity
HT08SOY002-10-22	Grain (Seeds)	B2 (FG72 untreated)	Maturity
HT08SOY002-10-23	Grain (Seeds)	B3 (FG72 untreated)	Maturity
HT08SOY002-10-31	Grain (Seeds)	C1 (FG72 treated)	Maturity
HT08SOY002-10-32	Grain (Seeds)	C2 (FG72 treated)	Maturity
HT08SOY002-10-33	Grain (Seeds)	C3 (FG72 treated)	Maturity
HT08SOY002-10-41	Grain (Seeds)	D (Stine 2686-6 control)	Maturity
HT08SOY002-10-42	Grain (Seeds)	E (Stine 2788 control)	Maturity
HT08SOY002-10-43	Grain (Seeds)	F (Stine 3000-0 control)	Maturity



Appendix 2 Certificate of Analysis

MS Technologies, 22555 Laredo Trail, Adel, IA 50003 USA

May 25, 2008

Angela R Umthun, Testing Lab Coordinator

**Seed Purity testing on FG72 seed lots used for planting Agronomic
Field Trials: HT08SOY001 and HT08SOY002**

Analysis of the Chile seed lots: Three 1000 seed samples from each FG72 Chile seed lot was collected and ground. Genomic DNA was isolated from a 200mg sub-sample from each ground sample. FG74 large insert specific and FG74 small insert specific PCR was performed in duplicate on each sub-sample on two separate days. The entire process from the DNA isolation from sub-samples to the PCR amplification in duplicate on two days was repeated. Therefore 24 PCR reactions for each FG74 insert were run on each FG72 Chile seed lot.

Roundup Ready (CP4 EPSPS) ImmunoStrip tests were performed using 20g sub-samples from each of the three ground 1000 seed samples for each FG72 Chile seed lot. If one or more of the 1000 seed samples were positive, then the entire seed lot was considered positive.

FG72 seed lots from Chile: Trait Purity Testing Results

FG72 Line	FG74 large and small insert PCR test Results	RR immunostrip test Results
FG72-6	-	-
FG72-9	-	-
FG72-bulk	-	-

Lot 6 from Chile was used for agronomic trials (HT08SOY002), Chile Bulk was used for efficacy trials, and a mixture of Lots 6 and 9 from Chile was used for sample production (HT08SOY001).

Responsible Scientist

Angela R Umthun Date May 25, 2008