

2014 Corn Grain Top 30 Harvest Report

North Central Tri-State [NCTS] LANCASTER
Darrel Crapp, Grant County, WI 53820



Test by: F.I.R.S.T. NCB, Inc., Lanark, IL

PREV. CROP/HERB: Corn, 2+ yr / Lumax, Atrazine
SOIL DESCRIPTION: Tama silt loam, mod. well drained, conventional w/ fall till, non-irrigated
SOIL CONDITION: Moderate P, mod. high K, 5.6 pH, 2.9% OM
PEST MANAGEMENT: Lumax, Force
FERTILITY - Applied N: 32 Fall, 155 Spring, 48 Planter
Applied N-P-K (units): 235-81-60
SEEDED - RATE - ROW: May 9 35,100 /A 30" spacing
HARVESTED - STAND: Oct 28 33,800 /A

Early-Season Test

101 - 106 Day CRM
B2014NCTS11a

Top 30 of 63

For Gross Income (Sorted by Yield)

Average of (3) Replications

Company/Brand	Product/Brand†	Technol.†	Seed Treatment†	RM	Yield Bu/A	Moisture %	Lodging %	Stand (x 1000)	Gross Income \$/Acre	Rank
LG Seeds	LG5523STX	STX	AC,P5V	105	200.9	21.0	10	36.2	707	1
NK Brand	N58S-3111	3111	AVC,C5	106	196.8	22.0	7	33.5	687	3
Champion	CSX54A15SS	STX,B	AC,P5V	104	193.2	21.9	11	36.2	675	5
Cornelius	C533SS	STX	AC,P5V	106	192.5	21.8	20	38.1	673	6
Jung	7S579RIB	STX,B	AC,P5V	104	190.6	20.6	10	31.6	673	7
FS InVISION	FS 51TX1 RIB	STX,B	AC,P5V	101	189.6	18.3	15	32.5	683	4
Great Lakes	5428STXRIB	STX,B	AC,P5V	104	189.0	20.6	7	30.7	668	10
NuTech/G2 Gen	5H-806^	HX,RR2	CM,C2	106	188.9	21.6	11	33.5	662	13
Great Lakes	5283STXRIB	STX,B	AC,P5V	102	188.8	20.1	17	35.3	670	8
FS InVISION	FS 54ZX1 RIB	STX,B	AC,P5V	104	187.9	21.1	7	32.5	661	14
Wyffels	W3358	STX	AC,P5V	103	187.7	19.3	10	36.2	670	9
Titan Pro	2M04-2P	VT2P,B	AC,P2	104	187.2	19.9	11	35.3	665	11
Kruger	K4R-9204	STX,B	AC,P5V	104	187.1	21.2	7	37.2	657	17
Titan Pro	TP 39-05 SS	STX,B	AC,P5V	105	186.9	21.3	9	30.7	656	20
AgriGold	A6376STXRIB	STX,B	AC,P5V	106	186.6	22.1	11	30.7	651	22
FS InVISION	FS 56VX1 RIB	STX,B	AC,P5V	106	186.4	21.0	9	34.4	656	21
Jung	7S522RIB	STX,B	AC,P5V	101	185.2	18.8	23	31.6	664	12
Jung	7S577RIB	STX,B	AC,P5V	104	185.0	19.2	10	36.2	661	15
NuTech/G2 Gen	5Z-002^	OI	MQ,P1V,R	102	184.6	19.7	7	32.5	657	18
Golden Harvest	G02W74-3000GT	3000GT	AVC,C5	102	184.4	18.8	10	29.8	661	16
Wyffels	W2888RIB	STX,B	AC,P5V	102	183.7	19.2	7	34.4	657	19
Steyer	10004GENSS RIB	STX,B	CM,C2	100	183.1	19.9	7	36.2	651	23
Federal	5440SSTAX	STX	AC,P5V	104	182.2	19.8	10	33.5	648	25
Renk	RK752SSTX	STX,B	AC,P2	105	181.9	21.9	14	30.7	635	30
Cornelius	C338DPDG	VT2P,DG	CM,C2	103	181.8	19.4	7	36.2	649	24
Dyna-Gro	D46SS46	STX	AC,P5V	107	181.2	20.4	14	35.3	641	26
FS InVISION	FS 52TX1 RIB	STX,B	AC,P5V	102	181.0	20.2	7	34.4	641	27
Kruger	K4R-9406	STX,B	AC,P5V	106	181.0	20.2	19	32.5	641	28
Wyffels	W3998RIB	STX,B	AC,P5V	105	180.6	21.3	7	31.6	634	31
Kruger	K4R-9304	STX,B	AC,P5V	104	179.4	19.8	11	37.1	638	29
Pioneer	P0533AM1 CK	AM1,B	MQ,P1V	105	199.6	20.9	11	32.6	703	2

Jason Beyers

beyers@frontiernet.net, (815) 985-7369

Test Average = **178.6** 20.5 11 33.8 631

LSD (0.10) = 16.7 0.7 8

LSD (0.25) = 11.6 0.5 6

C.V. = 6.9 2.6

Yield & Income Factors: Base Moisture = 15.0% Shrink = 1.3 Drying = \$0.030 Price = $\frac{\$3.70}{\$3.70}$ Local GMO non-GMO

Test Comments: *Everything at this location was great, until just prior to pollination, when the test received strong winds that laid most of the corn flat on the ground. Good thing the soil was saturated at the time, allowing plants and roots to tip over without stalk greensnap. The corn goosenecked up and pollinated fairly well. It was bad enough that Darrel called to say, "the test is done for this year".*

† See last page for abbreviation descriptions. Dark colored row identifies the check product found in early- and full-season tests. **Bold** yields are significantly above test average by LSD(0.10). **Italicized** brands exceed the grain moisture limit for this test. **ns** = column values not significantly different

Additional reports available at www.firstseedtests.com

AgSCI Copyright 2014

Report date: 10/29/2014 Revised:

2014 Corn Grain Top 30 Harvest Report

North Central Tri-State [NCTS] LANCASTER
Darrel Crapp, Grant County, WI 53820



Test by: F.I.R.S.T. NCB, Inc., Lanark, IL

PREV. CROP/HERB: Corn, 2+ yr / Lumax, Atrazine
SOIL DESCRIPTION: Tama silt loam, mod. well drained, conventional w/ fall till, non-irrigated
SOIL CONDITION: Moderate P, mod. high K, 5.6 pH, 2.9% OM
PEST MANAGEMENT: Lumax, Force
FERTILITY - Applied N: 32 Fall, 155 Spring, 48 Planter
Applied N-P-K (units): 235-81-60
SEDED - RATE - ROW: May 9 35,100 /A 30" spacing
HARVESTED - STAND: Oct 28 33,500 /A

Full-Season Test
107 - 110 Day CRM
B2014NCTS11b

Top 30 of 63

For Gross Income (Sorted by Yield)
Average of (3) Replications

Company/Brand	Product/Brand†	Technol.†	Seed Treatment†	RM	Yield Bu/A	Moisture %	Lodging %	Stand (x 1000)	Gross Income \$/Acre	Rank
Federal	5940SSTAX	STX	AC,P5V	109	203.9	22.2	10	34.4	710	1
NuTech/G2 Gen	X5Z-0906^	OI	MQ,P1V,R	109	201.0	23.3	7	33.5	694	3
Wyffels	W4968	STX	AC,P5V	107	200.0	20.3	11	34.4	708	2
Cornelius	C621SS	STX	AC,P5V	110	199.8	23.0	10	33.5	691	4
Federal	6050SSTAX	STX	AC,P5V	110	198.8	22.9	9	35.3	688	5
LG Seeds	LG5548STX	STX	AC,P5V	108	197.5	23.3	9	32.5	682	7
Kruger	K4R-9911	STX,B	AC,P5V	111	195.9	21.7	11	33.5	685	6
LG Seeds	LG5603STX	STX	AC,P5V	110	194.3	22.6	14	36.2	675	8
Pioneer	P0832AMX	AMX,B	MQ,P1V	108	194.3	23.6	7	35.3	669	14
NuTech/G2 Gen	5F-709^	AM,AQ,B	MQ,P5V	109	193.6	22.5	7	30.7	673	10
Channel	209-53STXRIB	STX,B	AC,P5V	109	193.3	22.4	14	35.3	672	11
Kruger	K4R-9511	STX,B	AC,P5V	111	193.2	24.5	4	26.0	660	16
Federal	5840SSTAXRIB	STX,B	AC,P5V	108	193.1	22.4	14	34.4	672	12
Jung	7S671RIB	STX,B	AC,P5V	107	191.6	21.1	7	34.4	674	9
Latham	LH6089SSRIB	STX,B	AC,P5V	110	190.1	22.3	13	35.3	662	15
Renk	RK776SSTX	STX,B	AC,P2	107	189.7	23.2	14	35.3	655	18
AgriGold	A6462STX	STX	AC,P5V	110	188.0	24.1	6	36.2	644	25
Kruger	K4R-9708	STX,B	AC,P5V	108	187.6	21.4	9	30.7	658	17
Federal	5730SSTAXRIB	STX,B	AC,P5V	107	186.9	21.8	14	31.6	653	19
Cornelius	C602SS	STX	AC,P5V	110	186.2	22.2	14	36.2	649	21
Steyer	11004GENSS RIB	STX,B	CM,C2	110	186.0	22.6	10	35.3	646	24
Epley	E1705RR	RR2	MQ	107	185.6	21.2	6	33.5	652	20
Stine	R9632SS	STX,B	AC,P2	107	185.5	22.0	7	36.2	647	23
Latham	LH5715VT2PRORIB	VT2P,B	AC,P2	107	185.4	21.7	11	33.4	649	22
Dyna-Gro	D48SS38	STX	AC,P5V	108	183.4	22.6	14	36.2	637	26
AgriGold	A6416STXRIB	STX,B	AC,P5V	107	181.9	21.8	6	31.6	636	27
Champion	CSX59A14SSRIB	STX,B	AC,P5V	109	181.9	22.7	10	32.6	631	31
Wyffels	W5138RIB	STX,B	AC,P5V	108	181.0	21.4	7	28.8	635	28
Titan Pro	2M07-SS	STX,B	AC,P5V	107	180.5	21.3	10	36.2	634	29
Latham	LH5779SSRIB	STX,B	AC,P5V	107	179.9	21.2	7	31.6	632	30
Pioneer	P0533AM1 CK	AM1,B	MQ,P1V	105	191.1	21.5	14	29.7	670	13

Jason Beyers
beyers@frontiernet.net, (815) 985-7369

Test Average = **179.7** **22.3** **10** **33.5** **626**
LSD (0.10) = 17.9 0.8 7
LSD (0.25) = 12.5 0.6 5
C.V. = 7.4 2.7

Yield & Income Factors: Base Moisture = 15.0% Shrink = 1.3 Drying = \$0.030 Price = $\frac{\$3.70}{\$3.70}$ Local GMO / non-GMO

Test Comments: *Everything at this location was great, until just prior to pollination, when the test received strong winds that laid most of the corn flat on the ground. Good thing the soil was saturated at the time, allowing plants and roots to tip over without stalk greensnap. The corn goosenecked up and pollinated fairly well. It was bad enough that Darrel called to say, "the test is done for this year".*

† See last page for abbreviation descriptions. Dark colored row identifies the check product found in early- and full-season tests. **Bold** yields are significantly above test average by LSD(0.10). **Italicized** brands exceed the grain moisture limit for this test. **ns** = column values not significantly different

Additional reports available at www.firstseedtests.com

AgSCI Copyright 2014

Report date: 10/29/2014 Revised:

2014 Corn Grain - North Central Tri-State [NCTS]



Early-Season Test Products (63 Total)

Company/Brand	Product/Brand	Technol.	Seed Trt	RM	Company/Brand	Product/Brand	Technol.	Seed Trt	RM
AgriGold	A6267STXRIB	STX,B	AC,P5V	102	NuTech/G2 Gen	5Z-002^	OI	MQ,P1V,R	102
AgriGold	A6351STX	STX	AC,P5V	105	Pioneer	P0407AMXT	AMXT,AQ,B	MQ,P1V	104
AgriGold	A6376STXRIB	STX,B	AC,P5V	106	Pioneer	P0533AM1 CK	AM1,B	MQ,P1V	105
Champion	CSX54A15SS	STX,B	AC,P5V	104	Renk	RK629VT3P	VT3P,B	AC,P2	101
Champion	CSX56A13VT2ProRIB	VT2P,B	CM,C2	106	Renk	RK699SSTX	STX,B	AC,P2	105
Cornelius	C338DPDG	VT2P,DG	CM,C2	103	Renk	RK712SSTX	STX	AC,P2	106
Cornelius	C457SS	STX	AC,P5V	105	Renk	RK752SSTX	STX,B	AC,P2	105
Cornelius	C533SS	STX	AC,P5V	106	Steyer	10004GENSS RIB	STX,B	CM,C2	100
Dairyland	DS6805	STX	CM,C2	105	Steyer	10102GENSSRIB	STX,B	CM,C2	101
Dairyland	DS6905	STX	CM,C2	105	Steyer	10403GENSSRIB	STX,B	CM,C2	104
Dairyland	DS9305RA	STX,B	CM,C2	105	Stine	R9425SS	STX,B	AC,P2	102
Dyna-Gro	D46SS46	STX	AC,P5V	107	Titan Pro	2M04-2P	VT2P,B	AC,P2	104
Epley	E1003VT2P	VT2P	CM,C2	100	Titan Pro	TP 39-02 SS	STX,B	AC,P5V	102
Epley	E1418GT3000	3000GT	CM,C2	104	Titan Pro	TP 39-05 SS	STX,B	AC,P5V	105
Federal	5140SSTAXRIB	STX,B	AC,P5V	101	Viking	D84-06RL	STX,B	AC,P5V	106
Federal	5440SSTAX	STX	AC,P5V	104	Wyffels	W2888RIB	STX,B	AC,P5V	102
Federal	5530VT2PRIB	VT2P,B	AC,P2	105	Wyffels	W3358	STX	AC,P5V	103
Federal	5640	STX,B	AC,P5V	106	Wyffels	W3998RIB	STX,B	AC,P5V	105
FS InVISION	FS 51TX1 RIB	STX,B	AC,P5V	101					
FS InVISION	FS 52TX1 RIB	STX,B	AC,P5V	102					
FS InVISION	FS 54ZX1 RIB	STX,B	AC,P5V	104					
FS InVISION	FS 56VX1 RIB	STX,B	AC,P5V	106					
Golden Harvest	G02W74-3000GT	3000GT	AVC,C5	102					
Great Lakes	5283STXRIB	STX,B	AC,P5V	102					
Great Lakes	5428STXRIB	STX,B	AC,P5V	104					
Jung	7S522RIB	STX,B	AC,P5V	101					
Jung	7S577RIB	STX,B	AC,P5V	104					
Jung	7S579RIB	STX,B	AC,P5V	104					
Kruger	K4R-9204	STX,B	AC,P5V	104					
Kruger	K4R-9304	STX,B	AC,P5V	104					
Kruger	K4R-9406	STX,B	AC,P5V	106					
Kruger	K4R-9901	STX,B	AC,P5V	101					
Latham	LH5219SSRIB	STX,B	AC,P5V	102					
Latham	LH5534-3000GT	3000GT	CM,C2	105					
Latham	LH5589SSRIB	STX,B	AC,P5V	105					
Latham	LH5659SSRIB	STX,B	AC,P5V	106					
LG Seeds	LG5518STXRIB	STX,B	AC,P5V	104					
LG Seeds	LG5522VT3PRIB	VT3P,B	AC,P5V	103					
LG Seeds	LG5523STX	STX	AC,P5V	105					
LG Seeds	LG5533VT3PRIB	VT3P,B	AC,P5V	107					
NK Brand	N58S-3111	3111	AVC,C5	106					
NuTech	5N-803	3000GT	CM,C2	101					
NuTech/G2 Gen	5F-805^	AM,B	MQ,P5V	105					
NuTech/G2 Gen	5H-806^	HX,RR2	CM,C2	106					
NuTech/G2 Gen	5L-802^	AMXT,B	MQ,P5V	102					

2014 Corn Grain - North Central Tri-State [NCTS]



Full-Season Test Products (63 Total)

Company/Brand	Product/Brand	Technol.	Seed Trt	RM	Company/Brand	Product/Brand	Technol.	Seed Trt	RM
AgriGold	A6408VT3PRIB	VT3P,B	AC,P5V	107	Pioneer	P0636AM1	AM1,B	MQ,P1V	106
AgriGold	A6416STXRIB	STX,B	AC,P5V	107	Pioneer	P0832AMX	AMX,B	MQ,P1V	108
AgriGold	A6442STXRIB	STX,B	AC,P5V	109	Renk	RK776SSTX	STX,B	AC,P2	107
AgriGold	A6462STX	STX	AC,P5V	110	Renk	RK791SSTX	STX,B	AC,P2	108
Champion	CSX57A13SS	STX,B	AC,P5V	107	Renk	RK834SSTX	STX	AC,P2	111
Champion	CSX59A14SSRIB	STX,B	AC,P5V	109	Steyer	10703GENSS RIB	STX,B	CM,C2	107
Channel	209-53STXRIB	STX,B	AC,P5V	109	Steyer	10803GENSS RIB	STX,B	CM,C2	108
Cornelius	C574SS	STX	AC,P5V	107	Steyer	10904GENSSRIB	STX,B	CM,C2	109
Cornelius	C594VT3P	VT3P	CM,C2	110	Steyer	11004GENSS RIB	STX,B	CM,C2	110
Cornelius	C602SS	STX	AC,P5V	110	Stine	R9631VT3Pro	VT3P,B	AC,P2	109
Cornelius	C621SS	STX	AC,P5V	110	Stine	R9632SS	STX,B	AC,P2	107
Dairyland	DS9307SSX	STX	CM,C2	107	Titan Pro	2M07-SS	STX,B	AC,P5V	107
Dyna-Gro	D48SS38	STX	AC,P5V	108	Titan Pro	TP 34-07 3000GT	3000GT	CM,C2	107
Dyna-Gro	D50SS43	STX	AC,P5V	111	Titan Pro	TP 39-09 SS	STX,B	AC,P5V	109
Epley	E1705RR	RR2	MQ	107	Wyffels	W4968	STX	AC,P5V	107
Federal	5730SSTAXRIB	STX,B	AC,P5V	107	Wyffels	W5138RIB	STX,B	AC,P5V	108
Federal	5840SSTAXRIB	STX,B	AC,P5V	108	Wyffels	W5448	STX	AC,P5V	108
Federal	5940SSTAX	STX	AC,P5V	109	Wyffels	W6628RIB	STX,B	AC,P5V	110
Federal	6050SSTAX	STX	AC,P5V	110					
FS InVISION	FS 57QX1 RIB	STX,B	AC,P5V	107					
FS InVISION	FS 59SX1 RIB	STX,B	AC,P5V	109					
FS InVISION	FS 60ZX1 RIB	STX,B	AC,P5V	110					
Golden Harvest	G07F23-3111	3111	AVC,C5	107					
Great Lakes	5755STXRIB	STX,B	AC,P5V	107					
Great Lakes	6068STXRIB	STX,B	AC,P5V	110					
Jung	7S671RIB	STX,B	AC,P5V	107					
Jung	7S686RIB	STX,B	AC,P5V	108					
Kruger	K4R-9308	STX,B	AC,P5V	108					
Kruger	K4R-9511	STX,B	AC,P5V	111					
Kruger	K4R-9708	STX,B	AC,P5V	108					
Kruger	K4R-9911	STX,B	AC,P5V	111					
Latham	LH5715VT2PRORIB	VT2P,B	AC,P2	107					
Latham	LH5779SSRIB	STX,B	AC,P5V	107					
Latham	LH5829SSRIB	STX,B	AC,P5V	108					
Latham	LH6089SSRIB	STX,B	AC,P5V	110					
LG Seeds	LG5548STX	STX	AC,P5V	108					
LG Seeds	LG5579VT3PRIB	VT3P,B	AC,P5V	109					
LG Seeds	LG5591STXRIB	STX,B	AC,P5V	110					
LG Seeds	LG5603STX	STX	AC,P5V	110					
NK Brand	N60F-3111	3111	AVC,C5	107					
NuTech/G2 Gen	5D-109^	AMX,B	MQ,P5V	109					
NuTech/G2 Gen	5F-008AM^	AM,AQ,B	MQ,P5V	108					
NuTech/G2 Gen	5F-709^	AM,AQ,B	MQ,P5V	109					
NuTech/G2 Gen	X5Z-0906^	OI	MQ,P1V,R	109					
Pioneer	P0533AM1 CK	AM1,B	MQ,P1V	105					

Footnotes and Abbreviation Descriptions

Brand Footnotes

^	G2® brand seed is distributed by NuTech Seed, LLC. HPT® brand seed is distributed by Hoegemeyer Hybrids, Inc. RPM® brand seed is distributed by Doebler's PA Hybrids, Inc. Supreme EX® brand seed is distributed by Seed Consultants, Inc. VPMa ^x ® brand seed is distributed by AgVenture, Inc. XL® and Phoenix® brand seed is distributed by Beck's Superior Hybrids. Curry®, G2®, HPT®, RPM®, Supreme EX®, VPMa ^x ® and XL® are registered trademarks of DuPont Pioneer.
CK	Identifies a check product included in early- and full-season tests.
GC	Grower Comparison product included by FIRST when space permits.

Corn Technologies*

3000GT	Agrisure® 3000GT (CB,RW,LL,GT)	DG	Genuity® DroughtGard®
3011A	Agrisure® Artesian® (CB,RW,LL,GT)	GT	Agrisure® GT
3110	Agrisure® Viptera® 3110 (Vip, CB,LL,GT)	GT/CB/LL	Agrisure® GT/CB/LL
3111	Agrisure® Viptera® 3111 (Vip,CB,RW,LL,GT)	HX	Herculex® 1, contains LL
3122	Agrisure® 3122 (CB,HXX,RW,LL,GT)	HX,RR2	Herculex® 1, Roundup Ready 2 Corn
3220	Agrisure® Viptera® 3220 (Vip,CB,HX,LL,GT)	HXRW	Herculex® Rootworm, contains LL
5122	Agrisure® Duracade® 5122 (CB,HX,RW,RW2,LL,GT)	HXT	Herculex® Xtra (HX,HXRW,LL)
5222	Agrisure® Duracade® 5122 (Vip,CB,HX,RW,RW2,LL,GT)	HXT,RR2	Herculex® Xtra, Roundup Ready 2 Corn
A	Agrisure® Artesian®	LL	LibertyLink®
AM	Optimum® AcreMax® (YGCB,HX,LL,RR2)	None	conventional corn
AM-R	Optimum® AcreMax® (YGCB,HX,RR2)	OI	Optimum® Intrasect® (YGCB,HX,LL,RR2)
AM1	Optimum® AcreMax®1 (HXT,LL,RR2)	OIX	Optimum® Intrasect® Xtra (YGCB,HXT,LL,RR2)
AMRW	Optimum® AcreMax® Rootworm (HXRW,LL,RR2)	OIXT	Optimum® Intrasect® Xtreme (YGCB,HXT,RW,LL,RR2)
AMRW-R	Optimum® AcreMax® Rootworm (HXRW,RR2)	OL	Optimum® Leptra® (Vip,YGCB,HX,LL,RR2)
AMX	Optimum® AcreMax® Xtra (YGCB,HXT,LL,RR2)	OT	Optimum® TRIssect® (HX,RW,LL,RR2)
AMX-R	Optimum® AcreMax® Xtra (YGCB,HXT,RR2)	RR2	Roundup Ready® 2 Corn
AMXT	Optimum® AcreMax® Xtreme (YGCB,HXT,LL,RR2)	STX	SmartStax® (VT3P,HXX)
AQ	Optimum® AQUAmax®	VT2P	Genuity® VT Double PRO®
B	Blended seed (i.e. refuge blend)	VT3	YieldGard VT Triple®
CB/LL	Agrisure® CB/LL	VT3P	Genuity® VT Triple PRO®
CB/LL/RW	Agrisure® CB/LL/RW	YGCB	YieldGard® Corn Borer

* The refuge component genetics may vary in a refuge blend seed product.

Corn Seed Treatments**

A	Allegiance®	L	Lorsban®
AC	Acceleron® fungicide products	M	Maxim XL®
At	Actellic®	MQ	Maxim Quattro®
AVC	Avicta® Complete Corn	None	untreated
C2, C5, C1	Cruiser® at 0.25, 0.5 and 1.25 mg ai/seed, respectively	P2, P5, P1	Poncho® at 0.25, 0.5 and 1.25 mg ai/seed, respectively
CE	Cruiser Extreme®	R	Raxil® (tebuconazole)
CM	CruiserMaxx® Corn	St	Stamina® (pyraclostrobin)
D	Dynasty® (azoxystrobin)	V	Votivo®
Es	Escalate®	Z	zinc

** Seed treatments may include unspecified plant health promoting components.