

2016 Corn Grain Top 30 Harvest Report

Iowa Northwest [IANW] PAULLINA
Mark Hibbing, O'Brien County, IA 51046



Test by: North Iowa F.I.R.S.T., Inc, Sanborn, IA

PREV. CROP/HERB: Soybean / Matador, Touchdown, Fusilade DX
SOIL DESCRIPTION: Galva silty clay loam, moderately drained, non-irrigated
SOIL CONDITION: Minimum w/o fall till, mod. high P, mod. high K, 6.5 pH, 3% OM
PEST MANAGEMENT: Harness, Steadfast, Callisto, atrazine
FERTILITY - Applied N: 173 Spring
Applied N-P-K (units): 173-60-60
SEEDING - RATE - ROW: May 19 36,000 /A 30" spacing
HARVESTED - STAND: Oct 24 33,600 /A

Early-Season Test
101 - 106 Day CRM
B2016IANW04a

Top 30 of 72
For Gross Income (Sorted by Yield)
Average of (2) Replications

Company/Brand	Product/Brand†	Technol.†	RM	Yield Bu/A	Moisture %	Lodging %	Stand (x 1000)	Gross Income \$/Acre	Rank
NuTech/G2 Gen	5F-504^	AM,B	104	257.1	19.7	0	35.8	799	4
Titan Pro	TP 53-03 2P	VT2P,B	103	255.9	18.5	0	34.8	805	1
NuTech/G2 Gen	5Z-503^	OI	103	254.9	18.4	0	33.9	802	2
Champion	CSX54A17SS	STX	104	254.6	19.8	0	31.9	791	5
NuTech/G2 Gen	5K-702^	OIXT	102	253.9	18.1	0	34.8	802	3
Epley	E1612SS	STX	106	253.7	20.4	0	34.8	783	7
Kruger	K4R-9504	STX,B	104	253.0	19.3	0	31.9	790	6
Jacobsen Seed	JS7205VT2PRO	VT2P	105	251.2	20.9	0	32.9	772	12
NorthStar	D91-06RL	STX,B	106	250.9	20.3	0	28.9	776	9
Federal	5370SSTAX	STX	103	250.2	21.8	0	32.9	762	15
Curry	XC-1605YHR	OI	105	250.0	19.7	0	33.9	777	8
Dairyland	DS-9204	STX	104	248.5	19.5	0	35.8	774	11
Becks	5513^	OIXT	105	248.0	19.2	0	35.8	775	10
Cornelius	C449DP	VT2P	105	247.3	19.9	0	33.9	767	13
FS InVISION	FS 53UX1	STX	103	247.0	20.4	0	34.8	763	14
Wyffels	W4796RIB	VT2P,B	106	245.1	19.9	0	33.9	761	16
NuTech/G2 Gen	5F-906^	AM,B	106	243.6	21.4	0	32.9	745	23
Kruger	K4R-9305	STX,B	105	242.7	20.1	0	32.9	752	18
Dairyland	DS-9403	STX	103	242.5	19.0	0	33.9	759	17
Becks	5665AMX^	AMX,B	106	241.4	21.2	0	35.8	740	26
Pfister	X14503VX	HXT,RR2	103	240.7	21.3	0	33.9	737	30
Wyffels	W3076	VT2P	102	239.4	19.4	0	35.8	746	21
Titan Pro	TP 56-06 3110	3110	106	238.6	19.1	0	33.9	746	22
Cornelius	C408DP	VT2P	104	238.3	19.5	0	34.8	742	25
Prairie Brand	5127SX	STX	101	237.7	18.8	0	34.8	745	24
Renk	RK717SSTX	STX	105	236.6	19.4	0	32.9	738	29
Wyffels	W3228RIB	STX,B	103	236.3	17.2	0	34.8	752	19
Kruger	K4R-9802	STX,B	102	236.3	19.1	0	33.9	739	28
Titan Pro	TP 58-01 2P	VT2P,B	101	235.9	17.8	0	34.8	747	20
Legend	LR94A01-3011A	3011,A	101	234.1	17.9	0	36.8	740	27
Pioneer	P0570AMXT CK	AMXT,B	105	231.4	19.8	0	35.8	719	48

Corey Rozenboom

Corey Rozenboom

corey.rozenboom@firstseedtests.com, (319) 830-8886

Averages = **236.1** **19.6** **0** **33.6** **735**

LSD (0.10) = 18.4 1.6 ns

LSD (0.25) = 12.8 1.1 ns

C.V. = 4.7 Prev. years average yield, 190.5 bu/a, 12 yrs

Yield & Income Factors: Base Moisture = 15.0% Shrink = 1.3 Drying = \$0.030 Prices: GMO = \$3.25; non-GMO = \$3.25

Test Comments: *Planting in this area was very difficult due to wet weather. Mark's field was not fit to plant until late May. Like other area fields, this was planted into marginal conditions. 2.4" rain fell after planting. In this wet soil, seedlings suffered & stands were reduced. Only 2 reps provided consistent reliable yield data and are presented above. Total rainfall, planting through maturity was 3" above normal.*

† 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

©2016, all rights reserved by Agronomic Seed Consulting, Inc.

Report Date: 10/25/2016 Revised:

2016 Corn Grain Top 30 Harvest Report

Iowa Northwest [IANW] PAULLINA
Mark Hibbing, O'Brien County, IA 51046



PREV. CROP/HERB: Soybean / Matador, Touchdown, Fusilade DX
SOIL DESCRIPTION: Galva silty clay loam, moderately drained, non-irrigated
SOIL CONDITION: Minimum w/o fall till, mod. high P, mod. high K, 6.5 pH, 3% OM
PEST MANAGEMENT: Harness, Steadfast, Callisto, atrazine
FERTILITY - Applied N: 173 Spring
Applied N-P-K (units): 173-60-60
SEEDING - RATE - ROW: May 19 36,000 /A 30" spacing
HARVESTED - STAND: Oct 24 31,700 /A

Full-Season Test
107 - 110 Day CRM
B2016IANW04b

Top 30 of 66

For Gross Income (Sorted by Yield)
Average of (2) Replications

Company/Brand	Product/Brand†	Technol.†	RM	Yield Bu/A	Moisture %	Lodging %	Stand (x 1000)	Gross Income \$/Acre	Rank
Wyffels	W4968RIB	STX,B	107	259.8	18.7	0	32.9	816	1
Wyffels	W7106RIB	VT2P,B	110	257.1	19.4	0	35.8	802	2
Dairyland	DS-9508RA	STX,B	108	255.1	21.3	0	32.9	781	4
NuTech	X5V-0707	3111	107	254.7	20.1	0	33.9	789	3
Cornelius	C585DP	VT2P	109	253.1	21.0	0	30.9	777	5
Cornelius	C621SS	STX	110	252.8	21.1	0	33.9	775	7
Renk	RK810SSTX	STX,B	110	252.1	21.6	0	31.9	769	10
Channel	210-26STXRIB	STX,B	110	251.9	20.5	0	34.8	777	6
Augusta	A1108VT2ProRIB	VT2P,B	108	251.7	20.9	0	35.8	773	8
Latham	LH6045VT2ProRIB	VT2P,B	110	250.9	22.3	0	34.8	760	17
Latham	LH5965VT2Pro	VT2P	109	250.2	21.7	0	31.9	763	15
NuTech/G2 Gen	5F-510^	AM,B	110	249.3	20.4	0	32.9	770	9
Titan Pro	TP 66-10 2P	VT2P,B	110	248.3	20.5	0	31.9	766	13
Pfister	68A1VX	HXT,RR2	108	248.2	21.7	0	32.9	757	19
Kruger	K4R-9608	STX,B	108	247.8	20.8	0	29.9	762	16
Kruger	K4R-9708	STX,B	108	246.5	19.3	0	34.8	769	11
Titan Pro	TP 59-08 SS	STX,B	108	245.8	19.6	0	31.9	765	14
Legend	LR9611GENSSRIB	STX,B	111	245.5	19.2	0	31.9	767	12
FS InVISION	FS 58QXT RIB	STX,B	108	245.0	20.3	0	32.9	757	20
Becks	5828AM^	AM,AQ,B	110	244.4	20.9	0	35.8	751	23
Legend	LR9608GENSSRIB	STX,B	108	243.5	20.7	0	34.8	750	24
Champion	CSX57A16VT2ProRIB	VT2P,B	107	243.4	21.0	0	28.9	747	25
Jacobsen Seed	JS7503VT2PRORIB	VT2P,B	110	243.0	19.7	0	34.8	755	21
Titan Pro	TP 58-10 SS	STX,B	110	242.5	21.4	0	33.9	742	27
Champion	CSX58A17Conv	None	108	242.0	21.3	0	25.9	741	28
Renk	RK794DGV2P	VT2P,DG,B	108	241.6	19.2	0	36.8	755	22
Channel	209-53STXRIB	STX,B	109	240.2	21.1	0	28.9	737	30
Dekalb	DKC58-06RIB GC	STX,B	108	239.4	17.7	0	31.9	759	18
Cornelius	C574DP	VT2P	107	238.4	19.7	0	35.8	741	29
Renk	RK792SSTX	STX	108	238.1	19.1	0	35.8	745	26
Pioneer	P0570AMXT CK	AMXT,B	105	232.0	19.0	0	36.8	726	38

Corey Rozenboom

Corey Rozenboom

corey.rozenboom@firstseedtests.com, (319) 830-8886

Averages = **235.6** **20.6** **0** **31.7** **726**

LSD (0.10) = 27.5 2.2 ns

LSD (0.25) = 19.1 1.5 ns

C.V. = 7.0 Prev. years average yield, 190.5 bu/a, 12 yrs

Yield & Income Factors: Base Moisture = 15.0% Shrink = 1.3 Drying = \$0.030 Prices: GMO = \$3.25; non-GMO = \$3.25

Test Comments: Same as the early test planted here, excessive spring rainfall reduced seedling emergence & final stands. Unfortunately, yield in 1.5 replications was impacted unlike 1 rep of the early-season test. These results are not reliable because good hybrids, that may have been in the Top 30, are not, due solely to placement in wet poor yielding areas. These results are deceptive. We highly discourage their use.

† 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

©2016, all rights reserved by Agronomic Seed Consulting, Inc.

Report Date: 10/25/2016 Revised:

Early-Season Test Products (72 Total)

Company/Brand	Product/Brand	Technol.	Seed Trt.	RM	Company/Brand	Product/Brand	Technol.	Seed Trt.	RM
Becks	5513 ^A	OIXT	Es	105	NuTech/G2 Gen	5F-906 ^A	AM,B	MQ,P5V,R	106
Becks	5665AMX ^A	AMX,B	Es	106	NuTech/G2 Gen	5K-702 ^A	OIXT	MQ,P1V,R	102
Champion	CSX54A15VT2ProRIB	VT2P,B	CM,C2	104	NuTech/G2 Gen	5Z-503 ^A	OI	MQ,P1V,R	103
Champion	CSX54A17SS	STX	AC,P2	104	Pfister	61C1VX	HXT,RR2	CM,C5,Vi,In	101
Champion	CSX56A13VT2ProRIB	VT2P,B	AC,P2	106	Pfister	62A1VX	HXT,RR2	CM,C5,Vi,In	102
Champion	CSX56A17VT2Pro	VT2P	AC,P2	106	Pfister	65B1VX	HXT,RR2	CM,C5,Vi,In	105
Channel	203-01STXRIB	STX,B	AC,P5V	103	Pfister	X14503VX	HXT,RR2	CM,C5,Vi,In	103
Channel	205-19STXRIB	STX,B	AC,P5V	105	Pioneer	P0297AMXT GC	AMXT,AQ,B	MQ,C2	102
Cornelius	C408DP	VT2P	CM,C2	104	Pioneer	P0570AMXT CK	AMXT,B	MQ,C2,Lu	105
Cornelius	C449DP	VT2P	CM,C2	105	Prairie Brand	5127SX	STX	CM,C5,Vi,In	101
Cornelius	C457SS	STX	AC,P5V	105	Prairie Brand	5385RA	STX,B	CM,C5,Vi,In	103
Curry	826-64AMX	AMX,B	MQ,P5V,R	106	Prairie Brand	5406SX	STX	CM,C5,Vi,In	104
Curry	923-83AMXT	AMXT,B	MQ,P5V,R	103	Prairie Brand	5646SX	STX	CM,C5,Vi,In	106
Curry	XC-1605YHR	OI	MQ,P1V,R	105	Renk	RK666SSTX	STX,B	AC,P5V	102
Dairyland	DS-9106	STX	CM,C5,Vi,In	106	Renk	RK675DGV2P	VT2P,DG,B	AC,P2	103
Dairyland	DS-9204	STX	CM,C5,Vi,In	104	Renk	RK680SSTX	STX,B	AC,P5V	103
Dairyland	DS-9403	STX	CM,C5,Vi,In	103	Renk	RK717SSTX	STX	AC,P5V	105
Dairyland	DS-9802	STX	CM,C5,Vi,In	102	Titan Pro	TP 53-03 2P	VT2P,B	AC,P2	103
Dekalb	DKC53-56RIB GC	STX,B	AC,P5V	103	Titan Pro	TP 56-06 3110	3110	CM,C2	106
Dekalb	DKC53-68RIB GC	STX,B	AC,P5V	103	Titan Pro	TP 58-01 2P	VT2P,B	AC,P2	101
Epley	E1612SS	STX	AC,P5V	106	Titan Pro	TP 67-02 SS	STX	AC,P2	102
Federal	5370SSTAX	STX	AC,P5V	103	Viking	40-03N	None	CM,C2	103
Federal	5440SSTAXRIB	STX,B	AC,P5V	104	withdrawn	withdrawn	STX,B	CM,C2,Vi	105
Federal	5550SSTAXRIB	STX,B	AC,P5V	105	Wyffels	W1968	STX	AC,P5V	101
FS InVISION	FS 52ZX1 RIB	STX,B	AC,P5V	102	Wyffels	W3076	VT2P	AC,P5V	102
FS InVISION	FS 53UX1	STX	AC,P5V	103	Wyffels	W3228RIB	STX,B	AC,P5V	103
FS InVISION	FS 54ZX1 RIB	STX,B	AC,P5V	104	Wyffels	W4796RIB	VT2P,B	AC,P2	106
Jacobsen Seed	JS7205VT2PRO	VT2P	AC,P5V	105					
Jacobsen Seed	JS7279VT2PRORIB	VT2P,B	AC,P5V	103					
Kruger	K4R-9305	STX,B	AC,P5V	105					
Kruger	K4R-9504	STX,B	AC,P5V	104					
Kruger	K4R-9802	STX,B	AC,P5V	102					
Latham	EX5339SS	STX	AC,P5V	103					
Latham	LH5109SSRIB	STX,B	AC,P5V	101					
Latham	LH5215VT2ProRIB	VT2P,B	AC,P2	102					
Latham	LH5659SSRIB	STX,B	AC,P5V	106					
Legend	LR94A01-3011A	3011,A	CM,C2,Vi	101					
Legend	LR9503GENSSRIB	STX,B	CM,C2,Vi	103					
Legend	LR9701GENSSRIB	STX,B	CM,C2,Vi	101					
LG Seeds	LG5499STXRIB	STX,B	AC,P5V	100					
LG Seeds	LG5507STXRIB	STX,B	AC,P5V	103					
LG Seeds	LG5520STX	STX	AC,P5V	105					
NorthStar	D91-06RL	STX,B	AC,P5V	106					
NorthStar	NS102-168DGV2P	VT2P,DG	AC,P2	102					
NuTech/G2 Gen	5F-504 ^A	AM,B	MQ,P5V,R	104					

2016 Corn Grain - Iowa Northwest [IANW]



Full-Season Test Products (66 Total)

Company/Brand	Product/Brand	Technol.	Seed Trt.	RM	Company/Brand	Product/Brand	Technol.	Seed Trt.	RM
Augusta	A1108VT2ProRIB	VT2P,B	AC,P2	108	Pfister	2545RASS	STX,B	CM,C5,Vi,In	107
Augusta	A4658GT3110	3110	AC,P2	108	Pfister	68A1VX	HXT,RR2	CM,C5,Vi,In	108
Becks	5828AM^	AM,AQ,B	Es	110	Pfister	69B1VX	HXT,RR2	CM,C1,Vi,In	109
Becks	5883SX	STX	Es	108	Pfister	70A1SSR	STX	CM,C1,Vi,In	110
Becks	6076V2P	VT2P,B	Es	110	Pioneer	P0570AMXT CK	AMXT,B	MQ,C2,Lu	105
Champion	CSX57A16VT2ProRIB	VT2P,B	AC,P2	107	Pioneer	P0760AMXT GC	AMXT,AQ,B	MQ,C2,Lu	107
Champion	CSX57A17SSRIB	STX,B	CM,C2	107	Prairie Brand	5815RA	STX,B	CM,C5,Vi,In	108
Champion	CSX58A17Conv	None	AC,P2	108	Prairie Brand	5825RA	STX,B	CM,C5,Vi,In	108
Champion	CSX59A16SSRIB	STX,B	AC,P2V	109	Prairie Brand	6056SX	STX	CM,C5,Vi,In	110
Channel	207-27STXRIB	STX,B	AC,P5V	107	Renk	6-798VT2P	VT2P,B	AC,P2	109
Channel	209-53STXRIB	STX,B	AC,P5V	109	Renk	RK792SSTX	STX	AC,P5V	108
Channel	210-26STXRIB	STX,B	AC,P5V	110	Renk	RK794DGV2P	VT2P,DG,B	AC,P2	108
Cornelius	C574DP	VT2P	CM,C2	107	Renk	RK810SSTX	STX,B	AC,P5V	110
Cornelius	C585DP	VT2P	CM,C2	109	Titan Pro	TP 58-10 SS	STX,B	AC,P5V	110
Cornelius	C621SS	STX	AC,P5V	110	Titan Pro	TP 59-08 SS	STX,B	AC,P5V	108
Dairyland	DS-9508RA	STX,B	CM,C2	108	Titan Pro	TP 66-10 2P	VT2P,B	AC,P2	110
Dekalb	DKC58-06RIB GC	STX,B	AC,P5V	108	Viking	73-07N	None	CM,C2	107
Dekalb	DKC60-67RIB GC	STX,B	AC,P5V	110	Wyffels	W4968RIB	STX,B	AC,P5V	107
FS InVISION	FS 57TX1	STX	AC,P5V	107	Wyffels	W5448RIB	STX,B	AC,P5V	108
FS InVISION	FS 58QX1 RIB	STX,B	AC,P5V	108	Wyffels	W6198	STX	AC,P5V	109
FS InVISION	FS 60LX1	STX	AC,P5V	110	Wyffels	W7106RIB	VT2P,B	AC,P2	110
FS InVISION	FS 60QV1 RIB	VT2P,B	AC,P2	110					
Jacobsen Seed	JS7503VT2PRORIB	VT2P,B	AC,P5V	110					
Jacobsen Seed	JS9306SSRIB	STX,B	AC,P5V	106					
Kruger	K4R-9409	STX,B	AC,P5V	109					
Kruger	K4R-9608	STX,B	AC,P5V	108					
Kruger	K4R-9708	STX,B	AC,P5V	108					
Latham	LH5715VT2ProRIB	VT2P,B	AC,P2	107					
Latham	LH5885VT2ProRIB	VT2P,B	AC,P2	108					
Latham	LH5965VT2Pro	VT2P	AC,P5V	109					
Latham	LH6045VT2ProRIB	VT2P,B	AC,P2	110					
Legend	LR9407GENSSRIB	STX,B	CM,C2,Vi	107					
Legend	LR9509GENSSRIB	STX,B	CM,C2,Vi	109					
Legend	LR9608GENSSRIB	STX,B	CM,C2,Vi	108					
Legend	LR9611GENSSRIB	STX,B	CM,C2,Vi	111					
LG Seeds	LG5548STXRIB	STX,B	AC,P5V	108					
LG Seeds	LG5554-3111	3111	AVC,C5,Vi	108					
LG Seeds	LG5565STXRIB	STX,B	AC,P5V	108					
Mycogen	2A627 GC	STX,B	CM,C5,Vi,In	108					
NuTech	5N-410	3000GT	MQ,P5V,R	110					
NuTech	5N-607	3000GT	MQ,P5V,R	107					
NuTech	X5V-0707	3111	AVC,C2,Vi	107					
NuTech/G2 Gen	5F-308^	AM,B	MQ,P5V,R	108					
NuTech/G2 Gen	5F-510^	AM,B	MQ,P5V,R	110					
NuTech/G2 Gen	5F-709^	AM,AQ,B	MQ,P5V,R	109					

Footnotes and Abbreviation Descriptions

Brand Footnotes

^	G2® brand seed is distributed by NuTech Seed, LLC. Catalyst™ and Power Plus® brand seed is distributed by Burrus. HPT® brand seed is distributed by Hoegemeyer Hybrids, Innotech™ brand seed is distributed by Rob-See-Co, LLC. RPM® brand seed is distributed by Doebler's PA Hybrids, Inc. Supreme EX® brand seed is distributed by Seed Consultants, Inc. VPMaxx® brand seed is distributed by AgVenture, Inc. XL® and Phoenix® brand seed is distributed by Beck's Superior Hybrids. Curry®, G2®, HPT®, Power Plus®, RPM®, Supreme EX®, VPMaxx® and XL® are registered trademarks of DuPont Pioneer. Catalyst™, Innotech™ and Phoenix® are trademarks of Syngenta.
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)	HX	Herculex® 1, contains LL
3010	Agrisure® 3010 (CB,LL,GT)	HX,RR2	Herculex® 1, Roundup Ready 2 Corn
3110	Agrisure® Viptera® 3110 (Vip, CB,LL,GT)	HXRW	Herculex® Rootworm, contains LL
3111	Agrisure® Viptera® 3111 (Vip,CB,RW,LL,GT)	HXT	Herculex® Xtra (HX,HXRW,LL)
3122	Agrisure® 3122 (CB,HXX,RW,LL,GT)	HXT,RR2	Herculex® Xtra, Roundup Ready 2 Corn
3220	Agrisure® Viptera® 3220 (Vip,CB,HX,LL,GT)	LL	LibertyLink®
A	Agrisure® Artesian®	None	conventional corn
AM	Optimum® AcreMax® (YGCB,HX,LL,RR2)	OI	Optimum® Intrasect®, YHR (YGCB,HX,LL,RR2)
AMT	Optimum® AcreMax® TRIsect (HX,RW,LL,RR2)	OIX	Optimum® Intrasect® Xtra, YXR (YGCB,HXT,LL,RR2)
AMX	Optimum® AcreMax® Xtra (YGCB,HXT,LL,RR2)	OIXT	Optimum® Intrasect® Xtreme, CYXR (YGCB,HXT,RW,LL,RR2)
AMXT	Optimum® AcreMax® Xtreme (YGCB,HXT,RW,LL,RR2)	RR2	Roundup Ready® 2 Corn
AQ	Optimum® AQUAMax®	RW	Agrisure® Rootworm
B	Refuge Blend	STX	SmartStax® (VT3P,HXT,RR2,LL)
CB	Agrisure® Corn Borer	VT2P	Genuity® VT Double PRO®
DG	Genuity® DroughtGard®	VT3P	Genuity® VT Triple PRO®
GT	Agrisure® GT	YGCB	YieldGard® Corn Borer
GT/CB/LL	Agrisure® GT/CB/LL		

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

Corn Seed Treatments**

n/a	information not provided	In	Intego™ Solo
A	Allegiance®	L	Lorsban®
AC	Accelaron® fungicide products	Lu	Lumivia™
AChD	Accelaron® 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®
CM	CruiserMaxx® Corn	V	Votivo®
D	Dynasty®	Vi	Vibrance®
Es	Escalate®		

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