Timac AGRO USA | R&D

2021 Potato Research Timac Agro

Duo Maxx with Liquid Nitrogen

Potato

Objective

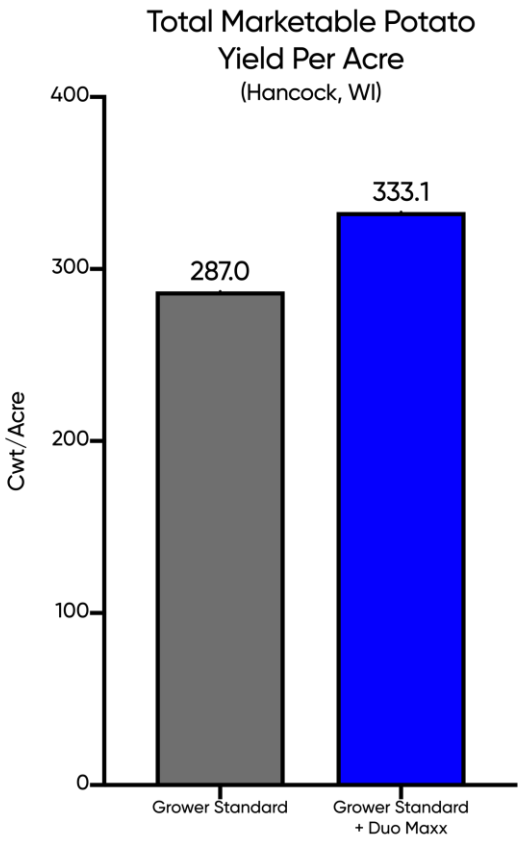
To compare the yield response in white potato variety *Russet Norkotah* by treating liquid nitrogen applied at final hilling with Duo Maxx at 8 oz/acre against the same rate of untreated liquid nitrogen.

Site Location:
Hancock, WI

Researcher:
University of Wisconsin
Hancock Research Station

Study Information

Variety	Russet Norkotah
Planting Date	22-April-2020
Harvest Date	15-Sept-2020

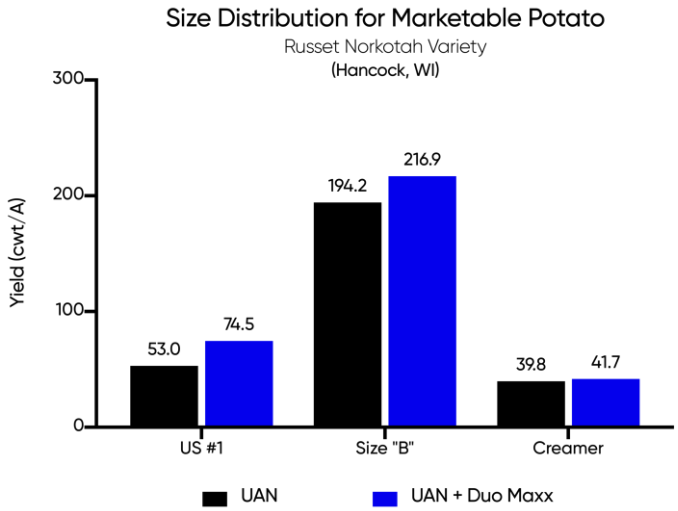


Key Findings

+46.1 cwt/ac
In marketable yield with Duo Maxx

Gains in Tuber Size, Yield & Quality
+15.9% in Tuber Counts
+4% in Average Tuber Size
-22.6% in Defects/Culls

ROI: $581.25/ac



Graphs: Liquid nitrogen treated with Duo Maxx increased yield 46.1 cwt/ac over untreated fertilizer. Revenue was calculated at $15/cwt for US #1 size, $10/cwt for Size "B", and $20/cwt for Creamer. Duo Maxx was calculated at retail cost of $100/gallon.

Application

Trial ID: RT-21-CM-POT-DM-1

Treatment	Application Rate
UAN	Standard Rate @ Final Hilling
UAN Treated with Duo Maxx	Standard Rate @ Final Hilling with 8 oz/A

Duo Maxx with Liquid Fertilizer

Potato

Objective

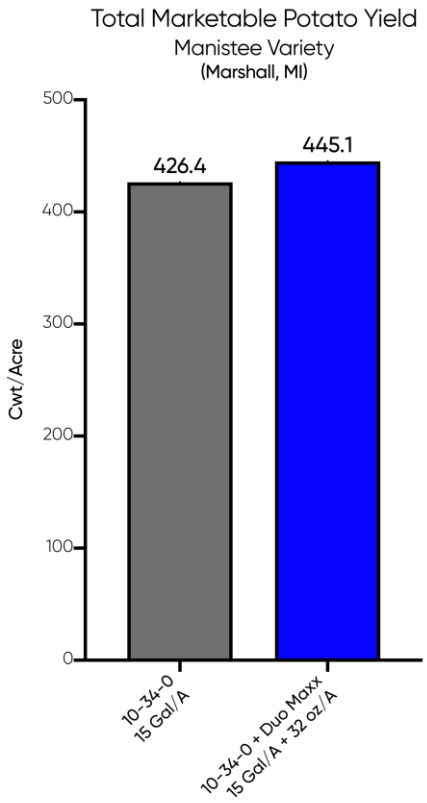
To compare the yield response in chipper potato variety *Manistee* by treating liquid fertilizer blend with Duo Maxx at 32 oz/acre against the same rate of untreated liquid fertilizer applied at planting.

Site Location:
Marshall, MI

Researcher:
Third Party
Contract Research Organization (CRO)

Study Information

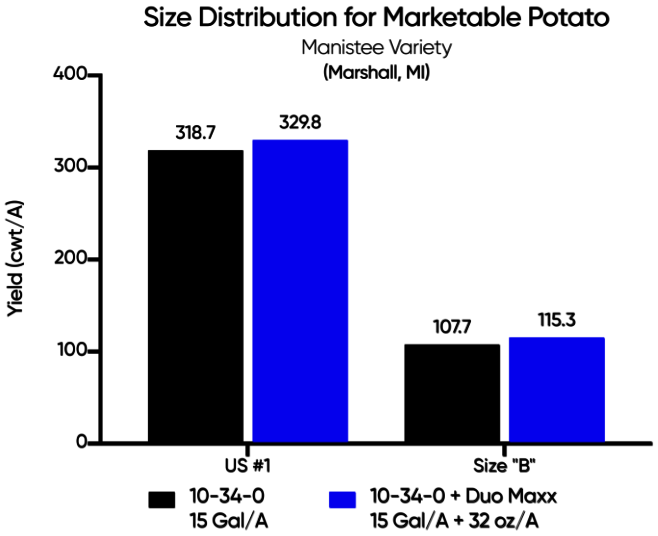
Variety	Manistee
Population	20,000
Planting Date	24-Apr-2021
Harvest Date	12-Sept-2021



Key Findings

+18.7 cwt/ac
In marketable yield with Duo Maxx treated liquid fertilizer

ROI:
$162.00/ac



Graphs: Liquid Fertilizer treated with Duo Maxx increased yield 18.7 cwt/ac over untreated fertilizer. Revenue was calculated at $10/cwt for chipper variety potato. Duo Maxx was calculated at retail cost of $100/gallon.

Application

Trial ID: RT-21-GL-POT-DM-1

Treatment	Application Rate
10-34-0	15 Gallons @ Planting
10-34-0 w/ Duo Maxx	15 Gallons @ Planting + 32 oz/A

Duo Maxx with Liquid Fertilizer

Potato

Objective

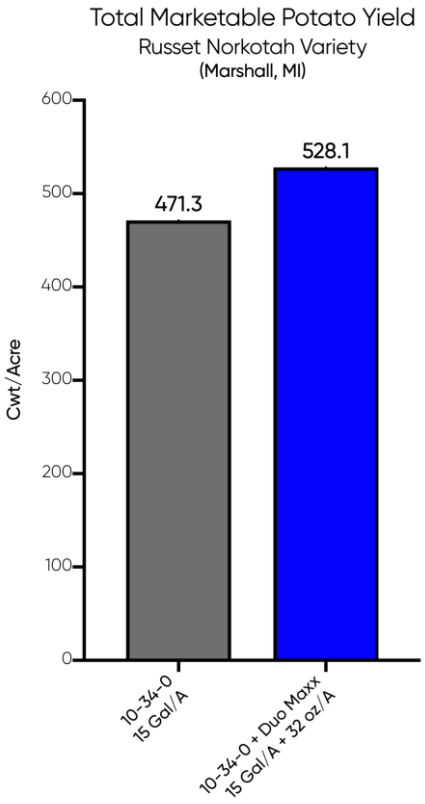
To compare the yield response in white potato variety *Russet Norkotah* by treating liquid fertilizer blend with Duo Maxx at 32 oz/acre against the same rate of untreated liquid fertilizer applied at planting.

Site Location:
Marshall, MI

Researcher:
Third Party
Contract Research Organization (CRO)

Study Information

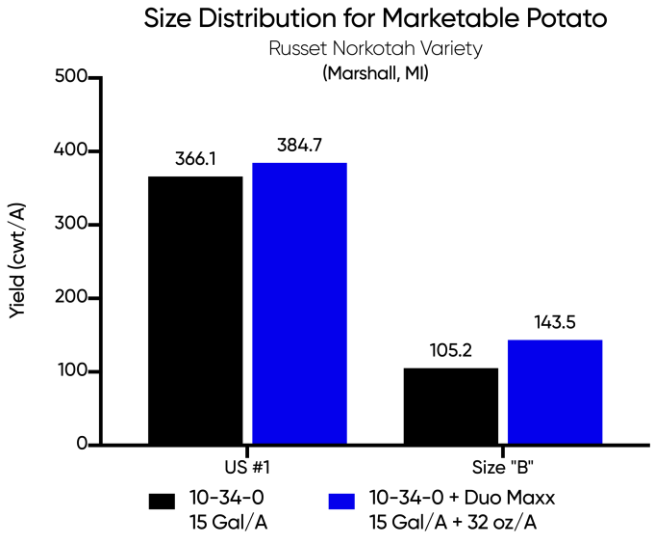
Variety	Russet Norkotah
Population	20,000
Planting Date	24-Apr-2021
Harvest Date	12-Sept-2021



Key Findings

+56.8 cwt/ac
In marketable yield with Duo Maxx treated liquid fertilizer

ROI:
$557.00/ac



Graphs: Liquid Fertilizer treated with Duo Maxx increased yield 56.7 cwt/ac over untreated fertilizer. Revenue was calculated at $15/cwt for US #1 size and $10/cwt for Size "B" potato. Duo Maxx was calculated at retail cost of $100/gallon.

Application

Trial ID: RT-21-GL-POT-DM-2

Treatment	Application Rate
10-34-0	15 Gallons @ Planting
10-34-0 w/ Duo Maxx	15 Gallons @ Planting + 32 oz/A

Fertileader During Tuber Development

Potato

Objective

To compare the yield and size distribution impact in yellow skin variety *Satina* potato for multiple foliar applications of Fertileader Gold during tuber development against grower standard practice.

Site Location

Immokalee, FL

Researcher

Colton Davis
Timac Agro USA

Trial ID: RT-21-SE-POT-FLGO

Study Information

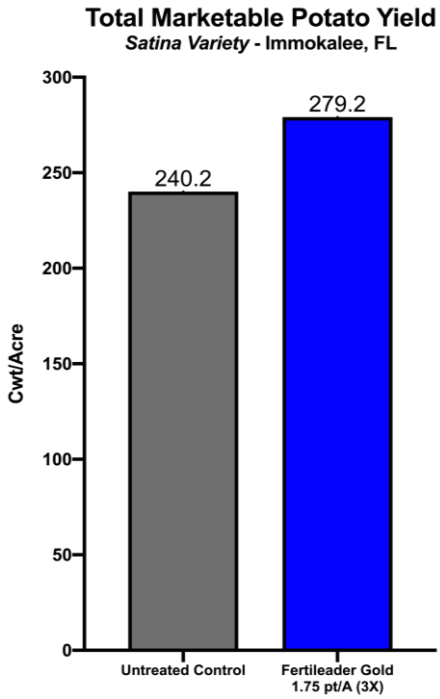
Variety	Satina
Population	23,868
Planting Date	23-Nov-2020
Harvest Date	15-March-2021

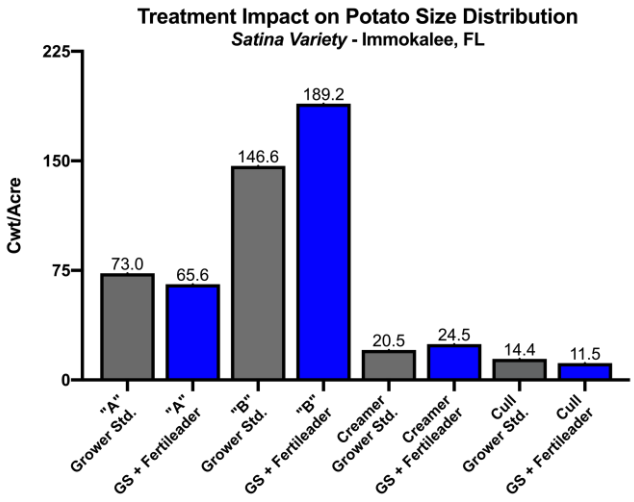
Key Findings

+39.04 cwt/ac
In marketable yield with Fertileader Program

Reduced Cull Weight by
19.8%

ROI: $1,036.56/ac





Application

Treatment	Application Rate
Grower Standard Practice	N/A
Fertileader Gold	3X @ 1.75 pt/acre, 14-day intervals

Fertileader During Tuber Development

Potato

OBJECTIVE

To compare the yield and size distribution impact in red skin variety *Thompson* potato for multiple foliar applications of Fertileader Gold during tuber development against grower standard practice.

SITE LOCATION

Immokalee, FL

RESEARCHER

Colton Davis
Timac Agro USA

Trial ID: RT-21-SE-POT-FLGO-2

STUDY INFORMATION

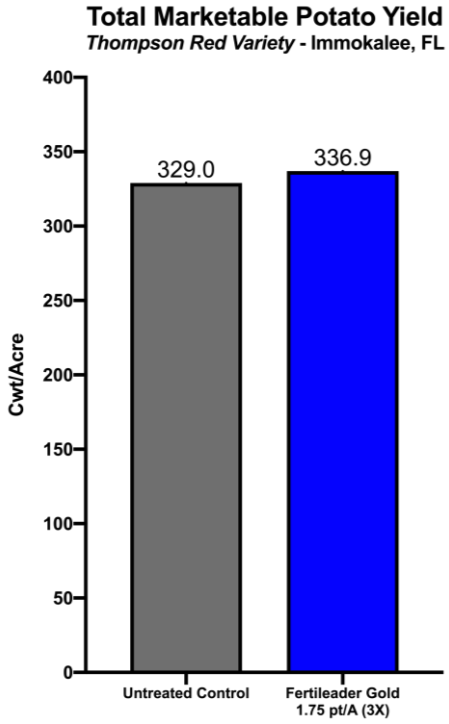
Variety	Thompson
Population	23,868
Planting Date	16-Nov-2020
Harvest Date	15-March-2021

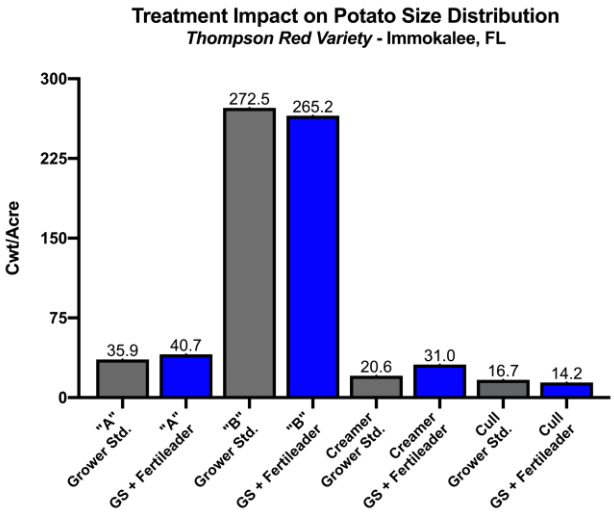
KEY FINDINGS

+7.97 cwt/ac
In marketable yield with Fertileader

Reduced Cull Weight by
14.7%

ROI: $548.71/ac





APPLICATION

Treatment	Application Rate
Grower Standard Practice	N/A
Fertileader Gold	3X @ 1.75 pt/acre, 14-day intervals

Fertileader During Tuber Development

Potato

Objective

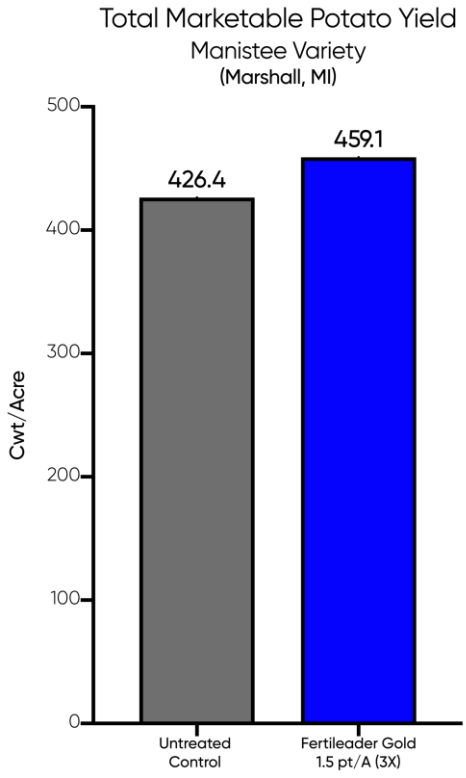
To compare the yield and size distribution impact in chipper potato variety *Manistee* for multiple foliar applications of Fertileader Gold during tuber development against grower standard practice.

Site Location:
Marshall, MI

Researcher:
Third Party
Contract Research Organization (CRO)

Study Information

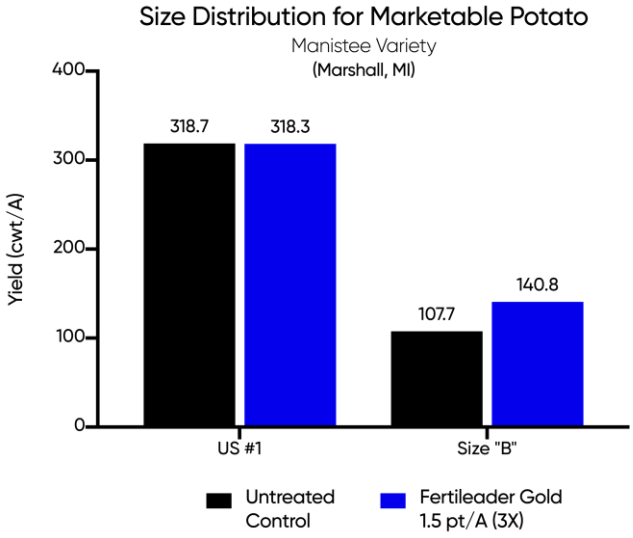
Variety	Manistee
Population	20,000
Planting Date	24-Apr-2021
Harvest Date	12-Sept-2021



Key Findings

+32.7 cwt/ac
In marketable yield with Fertileader Program

ROI:
$299.86/ac



Graphs: Foliar applied treatment of Fertileader Gold during tuber development increased yield 32.7 cwt/ac on Manistee variety potato. Revenue was calculated at $10/cwt. Fertileader Gold was calculated at retail cost of $48.25/gallon.

Application

Trial ID: RT-21-GL-POT-FLGO-1

Treatment	Application Rate
Grower Standard Practice	N/A
Fertileader Gold	3X @ 1.5 pt/acre, 14-day intervals

Fertileader During Tuber Development

Potato

Objective

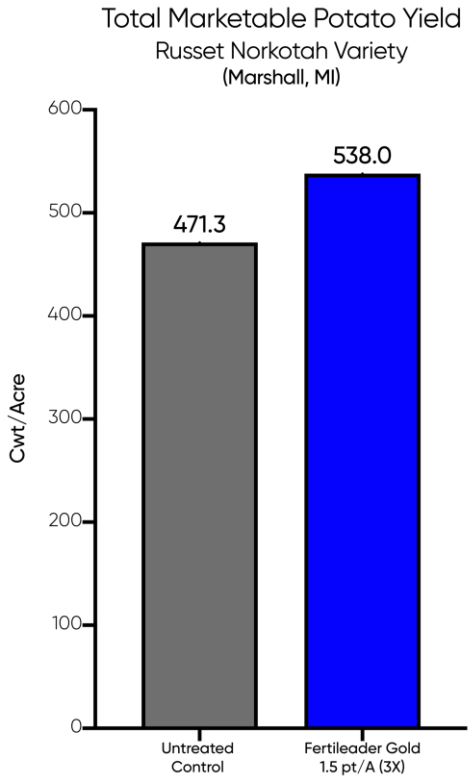
To compare the yield and size distribution impact in white potato variety *Russet Norkotah* potato for multiple foliar applications of Fertileader Gold during tuber development against grower standard practice.

Site Location:
Marshall, MI

Researcher:
Third Party
Contract Research Organization (CRO)

Study Information

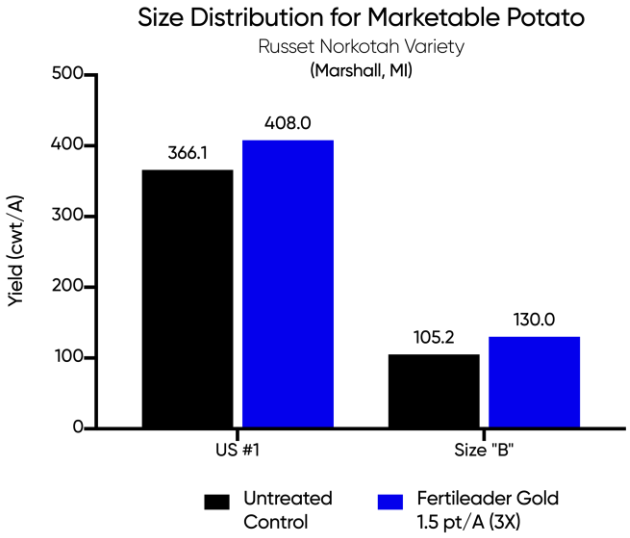
Variety	Russet Norkotah
Population	20,000
Planting Date	24-Apr-2021
Harvest Date	12-Sept-2021



Key Findings

+66.7 cwt/ac
In marketable yield with Fertileader Program

ROI:
$849.36/ac



Graphs: Foliar applied treatment of Fertileader Gold during tuber development increased yield 66.7 cwt/ac on Russet Norkotah variety potato. Revenue was calculated at $15/cwt for US #1 size and $10/cwt for Size "B" potato. Fertileader Gold was calculated at retail cost of $48.25/gallon.

Application

Trial ID: RT-21-GL-POT-FLGO-2

Treatment	Application Rate
Grower Standard Practice	N/A
Fertileader Gold	3X @ 1.5 pt/acre, 14-day intervals

Fertileader During Tuber Development

Potato

Objective

To compare the yield and size distribution impact in chipper potato variety *Snowden* for multiple foliar applications of Fertileader Gold during tuber development against grower standard practice.

Site Location:
Hancock, WI

Researcher:
University of Wisconsin
Hancock Research Station

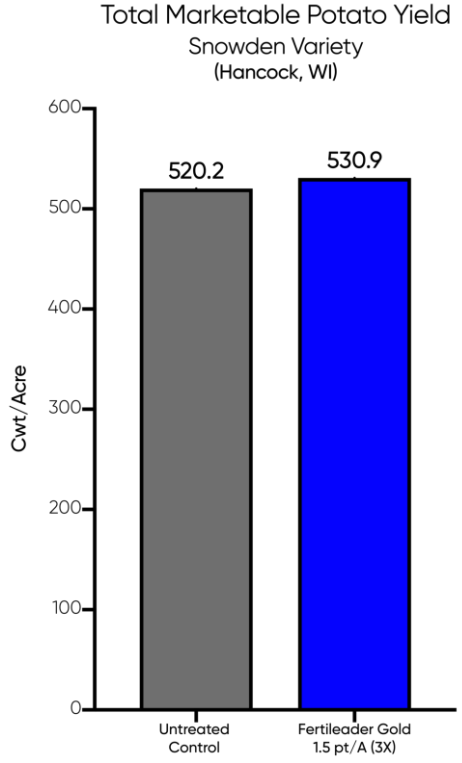
Study Information

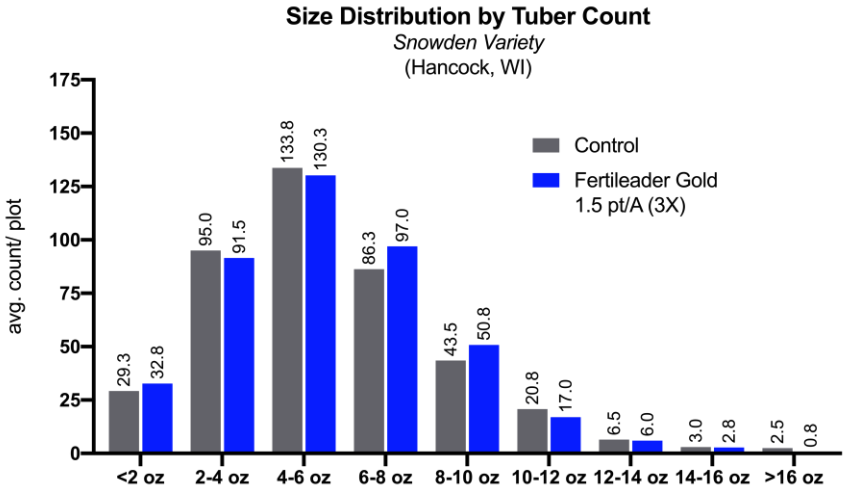
Variety	Snowden
Population	20,000
Planting Date	14-May-2021
Harvest Date	29-Sept-2021

Key Findings

+10.7 cwt/ac
In marketable yield with Fertileader Program

ROI:
$79.86/ac





Graphs: Foliar applied treatment of Fertileader Gold during tuber development increased yield 10.7 cwt/ac on Snowden variety potato. Revenue was calculated at $10/cwt. Fertileader Gold was calculated at retail cost of $48.25/gallon.

Application

Treatment	Application Rate
Grower Standard Practice	N/A
Fertileader Gold	3X @ 1.5 pt/acre, 14-day intervals

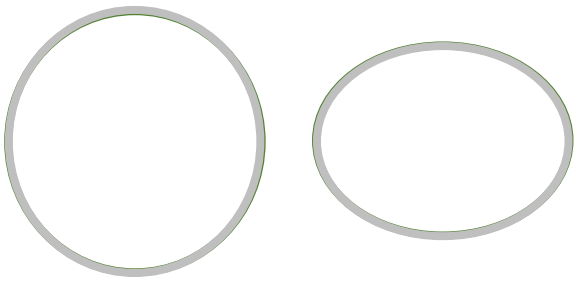
Wisconsin

Snowden Chipper Potato

Trial ID: RT-21-CM-POT-FLGO-1

Volume & Area Data

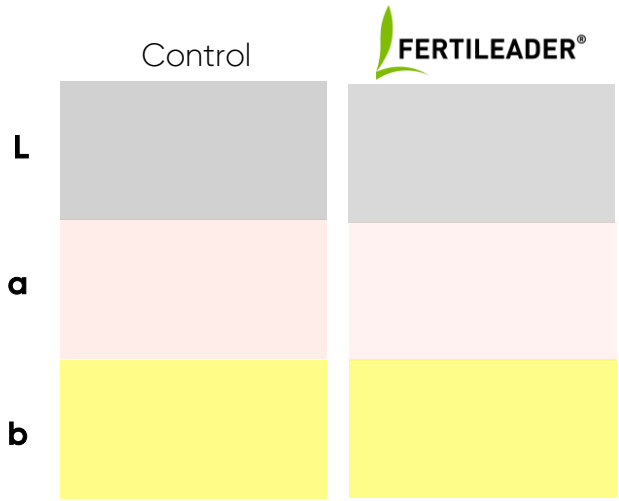
Length x Width **Height x Width**



	Width	Length	Height	Shape	S. Area
Control	2.62	2.74	1.99	27146.89	9256.7
Fertileader	2.64	2.72	1.98	27227.86	9206.05

Control FERTILEADER®

Hunter Lab Color Data from Photo-spectrometry



	Specific Gravity	L	a	b
Control	1.070	62.160	4.080	23.43
Fertileader	1.075	65.020	3.193	23.22

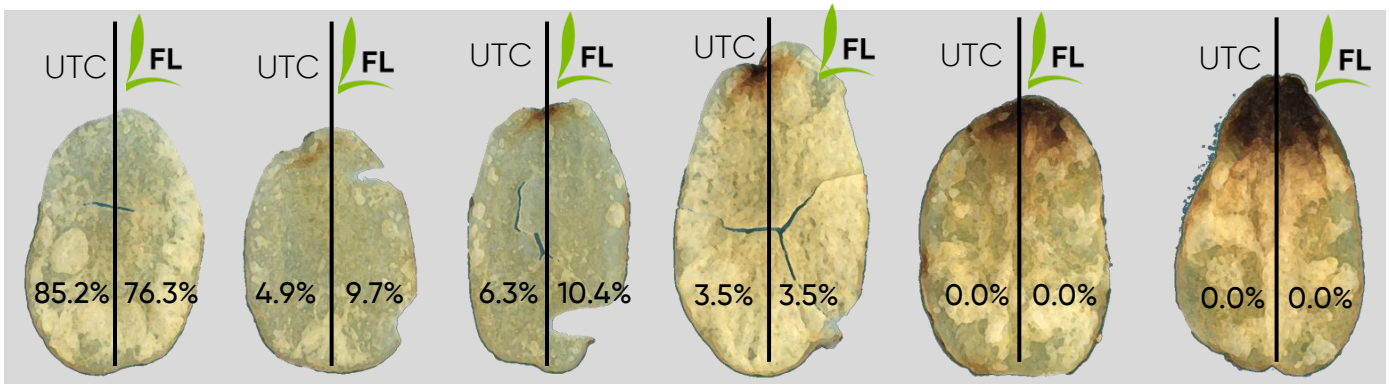
L* Lightness Value Improved by

4.6%

(a) red/green value reduced by

21.7%

Stem End Scoring Scale



0 1 2 3 4 5

	%0	%1	%2	%3	%4	%5
Control	85.2	4.9	6.3	3.5	0.0	0.0
Fertileader	76.3	9.7	10.4	3.5	0.0	0.0

Fertileader During Tuber Development

Potato

Objective

To compare the yield and size distribution impact in chipper potato variety *Atlantic* for multiple foliar applications of Fertileader Gold during tuber development against grower standard practice.

Site Location:
Antigo, WI

Researcher:
University of Wisconsin
Extension Research Farm

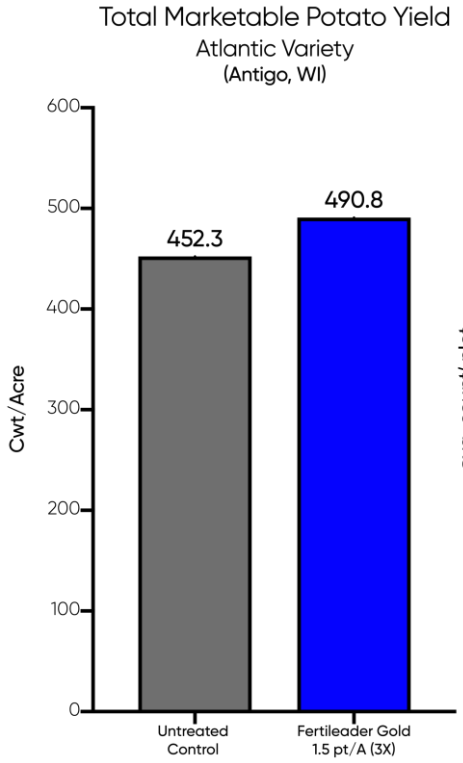
Study Information

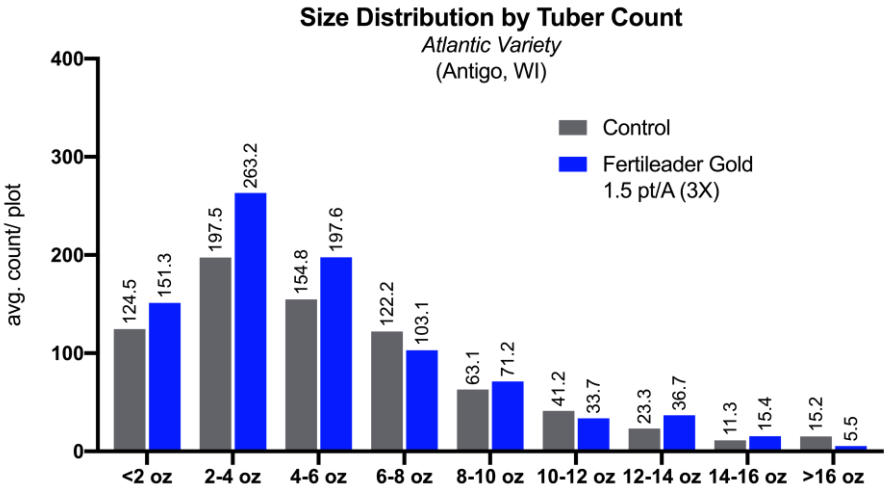
Variety	Atlantic
Population	20,000
Planting Date	18-May-2021
Harvest Date	22-Sept-2021

Key Findings

+38.5 cwt/ac
In marketable yield with Fertileader Program

ROI:
$357.16/ac





Graphs: Foliar applied treatment of Fertileader Gold during tuber development increased yield 38.5 cwt/ac on Atlantic variety potato. Revenue was calculated at $10/cwt. Fertileader Gold was calculated at retail cost of $48.25/gallon.

Application

Treatment	Application Rate
Grower Standard Practice	N/A
Fertileader Gold	3X @ 1.5 pt/acre, 14-day intervals

Wisconsin

Atlantic Chipper Potato

Trial ID: RT-21-CM-POT-FLGO-2

Volume & Area Data

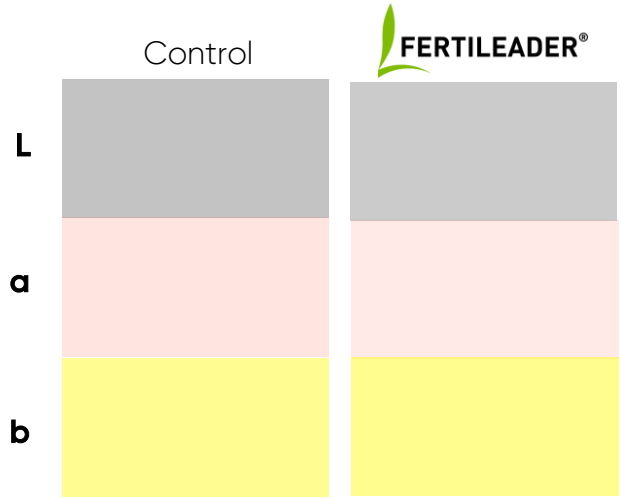
Length x Width **Height x Width**

	Width	Length	Height	Shape	S. Area
Control	2.6706	2.807	2.089	26804.75	9724.804
Fertileader	2.6362	2.7652	2.041	27156.94	9380.16

Control

FERTILEADER®

Hunter Lab Color Data from Photo-spectrometry



	Specific Gravity	L	a	b
Control	1.082	57.11	5.88	21.59
Fertileader	1.090	59.98	5.23	22.48

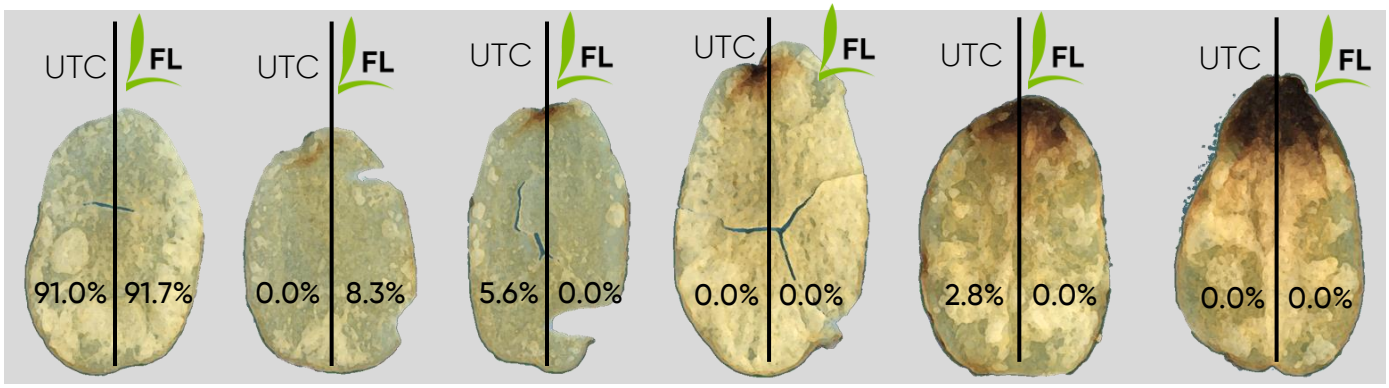
L* Lightness Value Improved by

5.0%

(a) red/green value reduced by

11%

Stem End Scoring Scale



	%0	%1	%2	%3	%4	%5
Control	91.0	0.0	5.6	0.0	2.8	0.0
Fertileader	91.7	8.3	0.0	0.0	0.0	0.0

Fertileader During Tuber Development

Potato

Objective

To compare the yield and size distribution impact in baking/French fry potato variety *Russet Burbank* for multiple foliar applications of Fertileader Gold during tuber development against grower standard practice.

Site Location:
Hancock, WI

Researcher:
University of Wisconsin
Hancock Research Station

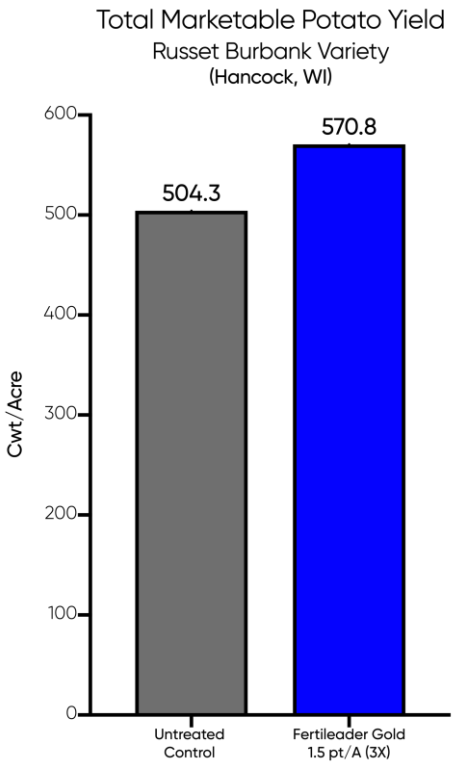
Study Information

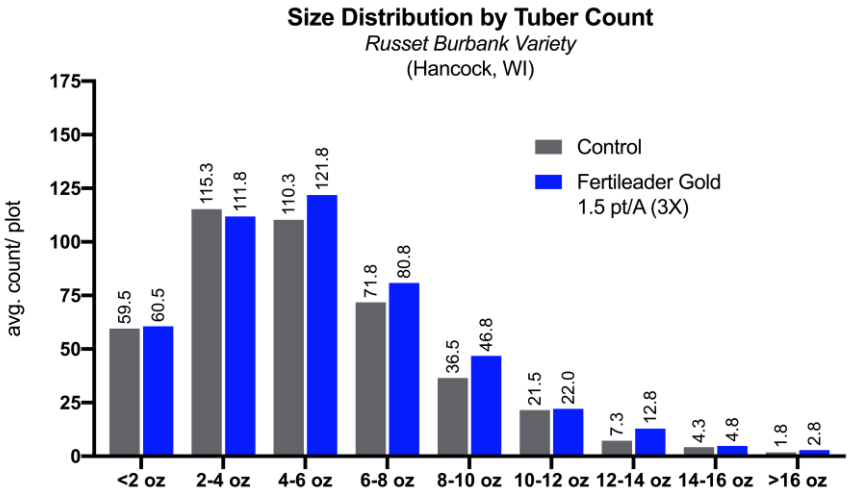
Variety	Russet Burbank
Population	20,000
Planting Date	12-May-2021
Harvest Date	1-Oct-2021

Key Findings

+66.5 cwt/ac
In marketable yield with Fertileader Program

ROI:
$637.86/ac





Graphs: Foliar applied treatment of Fertileader Gold during tuber development increased yield 66.5 cwt/ac on Russet Burbank variety potato. Revenue was calculated at $10/cwt. Fertileader Gold was calculated at retail cost of $48.25/gallon.

Application

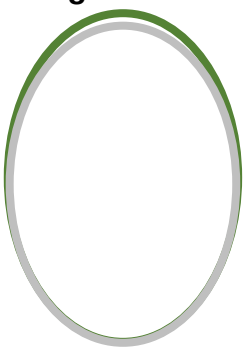
Treatment	Application Rate
Grower Standard Practice	N/A
Fertileader Gold	3X @ 1.5 pt/acre, 14-day intervals

RUSSET BURBANK FRY/BAKING POTATO

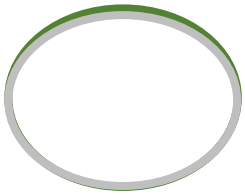
Trial ID: RT-21-CM-POT-FLGO-3

VOLUME & AREA DATA

Length x Width



Height x Width



	Width	Length	Height	Shape	S. Area
Control	2.37	3.32	1.77	29664.64	9717.89
Fertileader	2.39	3.41	1.86	30893.89	10110.51

Control

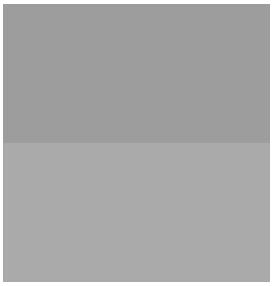
FERTILEADER®

Increased Surface Area by

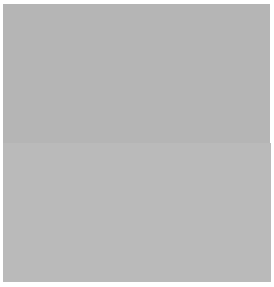
+4%

FRY COLOR DATA FROM PHOTO-SPECTROMETRY

Stem



Center



Control

FERTILEADER®

	Specific Gravity	Stem	Center
Control	1.065	27.342	32.467
Fertileader	1.066	30.179	33.700

Stem Side Color Improved by

+10.3%

Center Color Improved by

+3.8%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USA