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Season Plan Platinum  
Precision Farms

Prepared for: 2016

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Printed by: Connor Lankford

Company: Valley Agronomics

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# Index

Area Summary .....	3
Input Summary .....	4
Cost by Crop.....	7
Gross Margins by Crop .....	8

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**AF Reservoir ..... 9**

Reservoir 1 .....	11
Reservoir 2 .....	13
Reservoir 3 .....	15
Reservoir 4 .....	17

**Grandview ..... 18**

Grandview 1 .....	20
Grandview 2 .....	21
Grandview 3 .....	22
Grandview 4 .....	24
Grandview 5 .....	25

**Highway 39 ..... 26**

Highway 1 .....	28
Highway 2 .....	29
Highway 3 .....	30

**Springfield ..... 32**

Springfield 1 .....	34
Springfield 2 .....	35
Springfield 3 .....	36
Springfield 4 .....	37
Springfield 5 .....	38
Springfield 6 .....	39

## Area Summary

GROUP	CROP	VARIETY	AREA (acre)	(%)
Cereals	Wheat - winter (For Grain)	Brundage 96	526.56	28.84
		CROP	526.56	28.84
		GROUP	526.56	28.84
Pasture	Alfalfa	LegenDairy XHD	115.60	6.33
		CROP	115.60	6.33
		GROUP	115.60	6.33
Sugar Crops	Sugar Beet	BTS 20RR28 (RR)	598.64	32.78
		Crystal A399NT	71.53	3.92
		CROP	670.17	36.70
		GROUP	670.17	36.70
Vegetables & Melons	Potato	Russet Burbank	513.66	28.13
		CROP	513.66	28.13
		GROUP	513.66	28.13
		<b>TOTAL</b>	<b>1,825.99</b>	<b>100.00</b>

## Input Summary

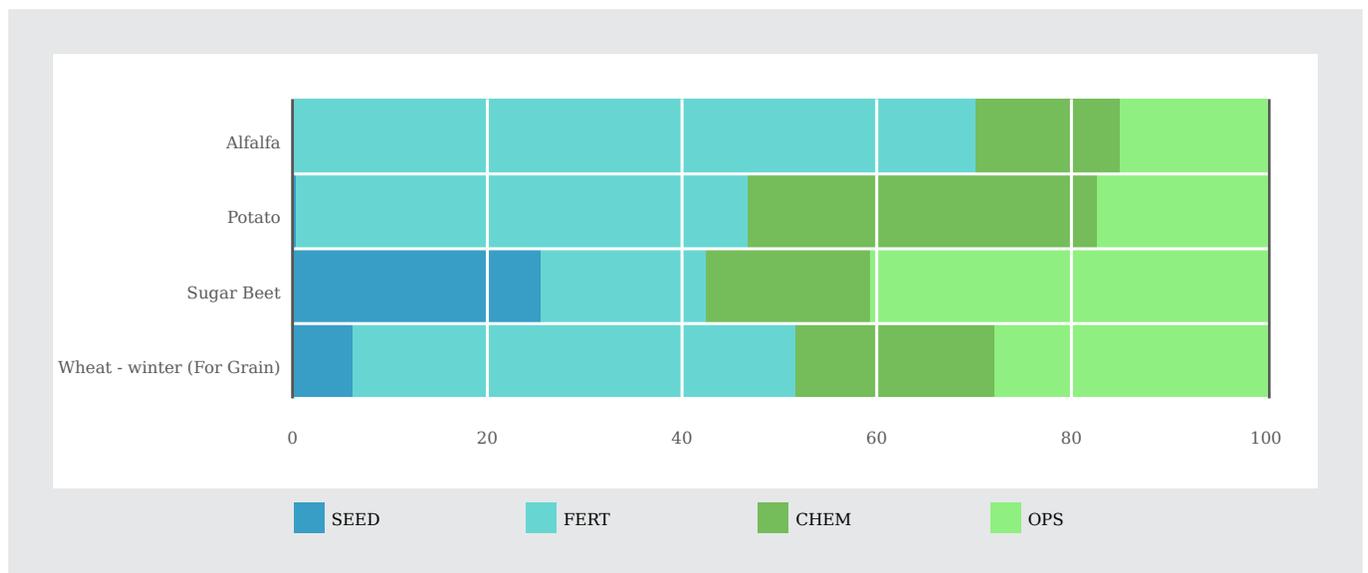
INPUTS	AMOUNT	AVERAGE UNIT COST	TOTAL COST
<b>Seed</b>			
BTS 20RR28	83,809.6 lbs	\$0.50 /lbs	\$41,904.80
Brundage 96	63,187.2 lbs	\$0.08 /lbs	\$5,244.54
Crystal A399NT	10,014.2 lbs	\$0.53 /lbs	\$5,307.53
Russet Burbank	14,382.48 lbs	\$0.09 /lbs	\$1,294.42
		TOTAL	\$53,751.29
<b>Operation</b>			
Boomspray - contract	513.66 acre	\$12.00 /acre	\$6,163.92
Boomspray application	3,626.18 acre	\$8.00 /acre	\$29,009.44
Deep Ripping	513.66 acre	\$40.00 /acre	\$20,546.40
Harvest	1,710.39 acre	\$35.99 /acre	\$61,561.02
Irrigation	1,603.2 acre	\$13.36 /acre	\$21,415.20
Planting	1,710.39 acre	\$18.53 /acre	\$31,701.99
Seed - Treatment	513.66 acre	\$1.00 /acre	\$513.66
Spray/aerial	1,710.39 acre	\$9.38 /acre	\$16,050.78
Spray/herbicide	526.56 acre	\$10.00 /acre	\$5,265.60
Spreading fertilizer	526.56 acre	\$10.00 /acre	\$5,265.60
Variable Rate Ground - spreading 1	1,027.32 acre	\$12.00 /acre	\$12,327.84
		TOTAL	\$209,821.45
<b>Adjuvant</b>			
Masterlock	55.49 gal	\$26.13 /gal	\$1,450.13
		TOTAL	\$1,450.13
<b>Drift Control Agent</b>			
InterLock	45.5 gal	\$66.00 /gal	\$3,002.88
		TOTAL	\$3,002.88
<b>Fertilizer</b>			
Actagro Katalyst 0-0-25	115.6 gal	\$15.00 /gal	\$1,734.00
Actagro Liquid Humus 0-0-4	285.73 gal	\$28.67 /gal	\$8,191.78
Actagro Structure 7-21-0	3,826.82 gal	\$8.00 /gal	\$30,614.56
Agfinity Manganese Sulfate 32%	3,210.38 lbs	\$0.74 /lbs	\$2,369.26
Agrium 11-52-0 MAP	51,076.32 lbs	\$0.20 /lbs	\$10,215.26
Andersons 46-0-0	114,790.08 lbs	\$0.18 /lbs	\$20,662.21
Elemental Sulphur 85%	60,098.22 lbs	\$0.23 /lbs	\$14,062.98
K-Mag	47,770.38 lbs	\$0.27 /lbs	\$13,069.98
Muriate of Potash 0-0-60	44,231.04 lbs	\$0.20 /lbs	\$8,846.21
Power Zinc 35 Granular	7,191.24 lbs	\$0.57 /lbs	\$4,073.12
Sulfuric Acid	15,409.8 gal	\$0.90 /gal	\$13,868.82
Thio-Sul (12-0-0-26S)	9,322.93 gal	\$2.25 /gal	\$20,965.96

INPUTS	AMOUNT	AVERAGE UNIT COST	TOTAL COST
Valley 0-0-60	77,049 lbs	\$0.17 /lbs	\$13,314.07
Valley 12-45-0-5-1Z	155,125.32 lbs	\$0.27 /lbs	\$42,256.14
Valley 21-0-0-24s	195,190.8 lbs	\$0.15 /lbs	\$29,512.85
Valley Agronomics 11-37-0	6,677.58 gal	\$4.11 /gal	\$27,412.80
Valley Agronomics 32-0-0	41,149.55 gal	\$2.50 /gal	\$102,992.30
Winfield Liquid Zinc 7%	64.21 gal	\$6.00 /gal	\$385.24
		TOTAL	\$364,547.55
Fungicide			
DuPont Aproach Fungicide	16.46 gal	\$160.00 /gal	\$2,632.80
Endura Fungicide	192.62 lbs	\$89.60 /lbs	\$17,258.98
Luna Tranquility	44.14 gal	\$400.00 /gal	\$17,657.06
Moncut 70-DF	385.25 lbs	\$36.00 /lbs	\$13,868.82
Topaz	37.4 gal	\$74.00 /gal	\$2,767.44
UPI Manzate Pro Stick	513.66 lbs	\$5.70 /lbs	\$2,927.86
Zing!	128.42 gal	\$70.00 /gal	\$8,989.05
		TOTAL	\$66,102.01
Herbicide			
Boundary 6.5 EC Herbicide	128.42 gal	\$90.00 /gal	\$11,557.35
Dimetric DF 75%	169.51 lbs	\$13.00 /lbs	\$2,203.60
Huskie Herbicide	61.71 gal	\$80.00 /gal	\$4,936.50
Parazone 3SL	64.21 gal	\$30.00 /gal	\$1,926.22
Prowl H2O Herbicide	96.31 gal	\$48.00 /gal	\$4,622.94
Reglone Desiccant	128.42 gal	\$93.00 /gal	\$11,942.60
Roundup PowerMAX Herbicide	322.1 gal	\$26.00 /gal	\$8,374.58
		TOTAL	\$45,563.80
Insecticide			
Advise Four Flowable Insecticide	0 gal	\$0.00 /gal	\$0.00
Arysta Chlorpyrifos 4E AG	125.66 gal	\$61.00 /gal	\$7,665.07
Stallion EC Insecticide	44.5 gal	\$100.00 /gal	\$4,450.35
		TOTAL	\$12,115.42
Miticide			
ABBA Ultra	32.1 gal	\$105.00 /gal	\$3,370.89
UPI Microthiol Disperss	1,340.34 lbs	\$3.73 /lbs	\$4,999.47
		TOTAL	\$8,370.36
Plant Growth Regulator			
MANA Ethephon 2SL	98.73 gal	\$80.00 /gal	\$7,898.40
		TOTAL	\$7,898.40
Seed Treatment Fungicide			
Power-Line Potato Seed Treat Mancozeb 6% Plus Bark	0 lbs	\$0.00 /lbs	\$0.00
		TOTAL	\$0.00
Soil Fumigant			
Vapam HL Soil Fumigant	20,546.4 gal	\$6.00 /gal	\$123,278.40
		TOTAL	\$123,278.40
Water Conditioning Agent			

INPUTS	AMOUNT	AVERAGE UNIT COST	TOTAL COST
Aduro	25.68 gal	\$22.00 /gal	\$565.03
Class Act NG	207.39 gal	\$15.90 /gal	\$3,298.40
		TOTAL	\$3,863.42
		<b>TOTAL</b>	<b>\$899,765.10</b>

# Cost by Crop

CROP	AREA acre	SEED		FERT		CHEM		OPS		TOTAL	
		Cost	Cost/ acre	Cost	Cost/ acre	Cost	Cost/ acre	Cost	Cost/ acre	Cost	Cost/ acre
Potato	514	1,294	2	284,618	554	220,771	430	107,355	209	614,038	1,195
Wheat - winter (For Grain)	527	5,245	10	39,724	75	17,771	34	24,485	46	87,225	166
Sugar Beet	670	47,212	70	31,704	47	31,304	47	76,132	114	186,352	278
Alfalfa	116	0	0	8,502	74	1,799	15	1,850	16	12,150	105
<b>TOTALS</b>	<b>1,826</b>	<b>53,751</b>	<b>29</b>	<b>364,548</b>	<b>200</b>	<b>271,645</b>	<b>149</b>	<b>209,821</b>	<b>115</b>	<b>899,765</b>	<b>493</b>



## Gross Margins by Crop

Alfalfa		TOTAL COST			LOW		MED		HIGH	
115.6 acre		\$12,150.23			\$80.00 /ton		\$100.00 /ton		\$120.00 /ton	
	ton/acre	ton	BE \$/ton	\$	\$/acre	\$	\$/acre	\$	\$/acre	
LOW	5	578	21	34,090	295	45,650	395	57,210	495	
MED	6	693.6	17	43,338	375	57,210	495	71,082	615	
HIGH	7	809.2	15	52,586	455	68,770	595	84,954	735	

Potato		TOTAL COST			LOW		MED		HIGH	
513.66 acre		\$614,038.29			\$140.00 /ton		\$160.00 /ton		\$180.00 /ton	
	ton/acre	ton	BE \$/ton	\$	\$/acre	\$	\$/acre	\$	\$/acre	
LOW	20	10,273.2	60	824,210	1,605	1,029,674	2,005	1,235,138	2,405	
MED	25	12,841.5	48	1,183,772	2,305	1,440,602	2,805	1,697,432	3,305	
HIGH	30	15,409.8	40	1,543,334	3,005	1,851,530	3,605	2,159,726	4,205	

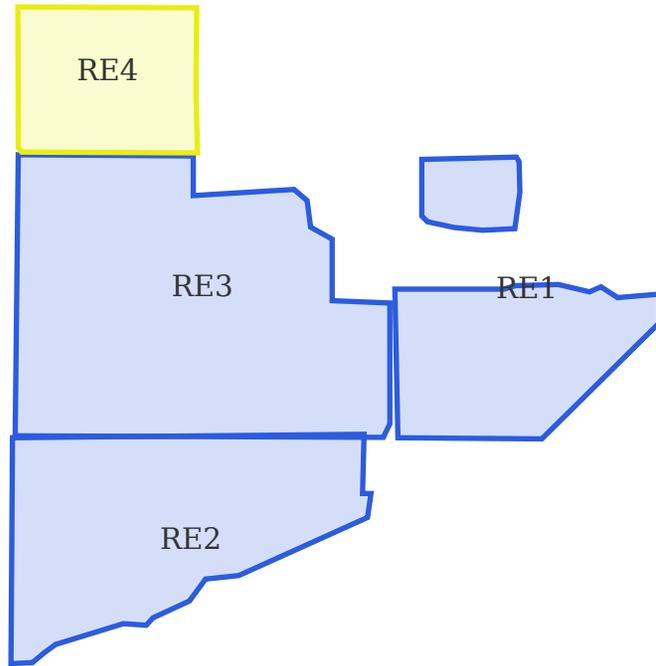
Sugar Beet		TOTAL COST			LOW		MED		HIGH	
670.17 acre		\$186,351.92			\$40.00 /ton		\$45.00 /ton		\$50.00 /ton	
	ton/acre	ton	BE \$/ton	\$	\$/acre	\$	\$/acre	\$	\$/acre	
LOW	38	25,466.46	7	832,306	1,242	959,639	1,432	1,086,971	1,622	
MED	43	28,817.31	6	966,340	1,442	1,110,427	1,657	1,254,514	1,872	
HIGH	48	32,168.16	5	1,100,374	1,642	1,261,215	1,882	1,422,056	2,122	

Wheat - winter (For Grain)		TOTAL COST			LOW		MED		HIGH	
526.56 acre		\$87,224.66			\$3.50 /bu		\$4.00 /bu		\$4.50 /bu	
	bu/acre	bu	BE \$/bu	\$	\$/acre	\$	\$/acre	\$	\$/acre	
LOW	100	52,656	1	97,071	184	123,399	234	149,727	284	
MED	130	68,452.8	1	152,360	289	186,587	354	220,813	419	
HIGH	150	78,984	1	189,219	359	228,711	434	268,203	509	

Total Farm Crop Gross Margin		Crops Gross Margin							
Total Area	Total Cost	All crops low price		All crops med price		All crops high price			
1,825.99 acre	\$899,765.10	\$	\$/acre	\$	\$/acre	\$	\$/acre		
	All crops low yield	1,787,677.30	979.02	2,158,361.60	1,182.02	2,529,045.90	1,385.03		
	All crops med yield	2,345,810.10	1,284.68	2,794,825.05	1,530.58	3,243,840.00	1,776.48		
	All crops high yield	2,885,513.30	1,580.25	3,410,226.10	1,867.60	3,934,938.90	2,154.96		

# AF Reservoir Aerial Overview

Potato  Wheat - winter 



## Farm Planning Summary - AF Reservoir

FIELD	2019	2018	2017	2016	2015
Reservoir 1 (Map: RE1)	Potato Russet Burbank 59 acre	Wheat - winter Dumas 59 acre	Sugar Beet BTS 20RR28 (RR) 59 acre	Potato Russet Burbank 59 acre	
Reservoir 2 (Map: RE2)		Wheat - spring Alturas (wheat) 85.02 acre	Sugar Beet BTS 20RR28 (RR) 85.02 acre	Potato Russet Burbank 85.02 acre	
Reservoir 3 (Map: RE3)		Wheat - winter Dumas 136.5 acre	Sugar Beet BTS 20RR28 (RR) 136.5 acre	Potato Russet Burbank 136.5 acre	
Reservoir 4 (Map: RE4)	Alfalfa 40 acre	Sugar Beet 40 acre	American Grape Christmas Rose 40 acre	Wheat - winter (For Grain) Brundage 96 40 acre	

Field Nutrition (lbs/acre): **N** 357.35 **Phosphate** 209.65 **K2O** 0.2 **Potash** 110.46 **S** 425.3 **Reservoir 1 - 59 acre**  
**Mg** 10.04 **Mn** 2 **Zn** 8.15 **Organic acids including Humic and Fulvic** 5.32

2019	2018	2017	2016	2015
Potato	Wheat - winter	Sugar Beet	<b>Potato</b>	
Russet Burbank	Dumas	BTS 20RR28 (RR)	<b>Russet Burbank</b>	
59 acre	59 acre	59 acre	<b>59 acre</b>	

No approved prescriptions for Reservoir 1 for 2016

SITUATION/ TIMING	INPUTS	RATE	TOTAL	COST/ ACRE	COST
<b>Potato Spring Fertilizer</b> Apr 14, 2016	Valley 21-0-0-24s	380 lbs/acre	22,420 lbs	\$57.46	\$3,389.90
	Variable Rate Ground - spreading 1	1 acre/acre	59 acre	\$10.00	\$590.00
Fertilizer Application	Field Nutrition (lbs/acre): <b>N</b> 79.8 <b>S</b> 91.2				
			<b>Total</b>	<b>\$67.46</b>	<b>\$3,979.90</b>
<b>Potato Seed Cutting</b> Apr 15, 2016	Seed - Treatment	1 acre/acre	59 acre	\$1.00	\$59.00
	Advise Four Flowable Insecticide	4 floz/100lb of seed	0 gal	\$0.00	\$0.00
	Power-Line Potato Seed Treat Mancozeb 6% Plus Bark	0.75 lbs/100lb of seed	0 lbs	\$0.00	\$0.00
			<b>Total</b>	<b>\$1.00</b>	<b>\$59.00</b>
<b>Potato Planting</b> May 31, 2016	Planting	1 acre/acre	59 acre	\$25.00	\$1,475.00
	Russet Burbank	28 lbs/acre	1,652 lbs	\$2.52	\$148.68
	Valley Agronomics 11-37-0	13 gal/acre	767 gal	\$53.37	\$3,148.69
	Actagro Liquid Humus 0-0-4	2 qt/acre	29.5 gal	\$7.50	\$442.50
	Winfield Liquid Zinc 7%	1 pt/acre	7.38 gal	\$0.75	\$44.25
	Moncut 70-DF	0.75 lbs/acre	44.25 lbs	\$27.00	\$1,593.00
	Field Nutrition (lbs/acre): <b>N</b> 17.16 <b>Phosphate</b> 57.72 <b>K2O</b> 0.2 <b>S</b> 0.04 <b>Zn</b> 0.09				
			<b>Total</b>	<b>\$116.14</b>	<b>\$6,852.12</b>
<b>Potato Herbicide</b> Jun 30, 2016	Prowl H2O Herbicide	1.5 pt/acre	11.06 gal	\$9.00	\$531.00
	Boundary 6.5 EC Herbicide	2 pt/acre	14.75 gal	\$22.50	\$1,327.50
	Dimetric DF 75%	0.33 lbs/acre	19.47 lbs	\$4.29	\$253.11
	Boomspray application	1 acre/acre	59 acre	\$8.00	\$472.00
			<b>Total</b>	<b>\$43.79</b>	<b>\$2,583.61</b>
<b>White Mold/ Early Blight</b> Jul 31, 2016	Endura Fungicide	6 oz/acre	22.13 lbs	\$33.60	\$1,982.40
	UPI Manzate Pro Stick	1 lbs/acre	59 lbs	\$5.70	\$336.30
	Boomspray application	1 acre/acre	59 acre	\$8.00	\$472.00
			<b>Total</b>	<b>\$47.30</b>	<b>\$2,790.70</b>
<b>White Mold/ Early Blight Application</b> Aug 31, 2016	Luna Tranquility	11 floz/acre	5.07 gal	\$34.37	\$2,028.12
	Boomspray application	1 acre/acre	59 acre	\$8.00	\$472.00
			<b>Total</b>	<b>\$42.37</b>	<b>\$2,500.13</b>
<b>Potatoes- Fungicide- Insecticide- Zing!, Abba Ultra, Masterlock</b> Sep 15, 2016	Zing!	1 qt/acre	14.75 gal	\$17.50	\$1,032.50
	ABBA Ultra	8 floz/acre	3.69 gal	\$6.56	\$387.19
	Masterlock	6 floz/acre	2.77 gal	\$1.17	\$69.14
	Spray/aerial	1 acre/acre	59 acre	\$10.00	\$590.00
				<b>Total</b>	<b>\$35.23</b>
<b>Potatoes- Desiccant- Reglone, Parazone, Aduro</b> Sep 30, 2016	Water Rate	20 gal/acre	1,180 gal		
	Reglone Desiccant	2 pt/acre	14.75 gal	\$23.25	\$1,371.75
	Parazone 3SL	1 pt/acre	7.38 gal	\$3.75	\$221.25
	Aduro	2 pt/100gal	2.95 gal	\$1.10	\$64.90
	Boomspray application	1 acre/acre	59 acre	\$8.00	\$472.00
			<b>Total</b>	<b>\$36.10</b>	<b>\$2,129.90</b>

SITUATION/ TIMING	INPUTS	RATE	TOTAL	COST/ ACRE	COST
<b>Potato Irrigation/ Fertigation</b> Oct 15, 2016	Irrigation	1 acre/acre	59 acre	\$15.00	\$885.00
	Valley Agronomics 32-0-0	55 gal/acre	3,245 gal	\$137.66	\$8,121.84
	Thio-Sul (12-0-0-26S)	18.15 gal/acre	1,070.85 gal	\$40.82	\$2,408.19
	Actagro Structure 7-21-0	7 gal/acre	413 gal	\$56.00	\$3,304.00
	Field Nutrition (lbs/acre): N 224.15 Phosphate 16.03 S 52.38 Zn 0.14 Organic acids including Humic and Fulvic 5.32				
<b>Total</b>				<b>\$249.48</b>	<b>\$14,719.03</b>
<b>Stubble Digest Sulfuric Acid</b> Oct 15, 2016	Sulfuric Acid	30 gal/acre	1,770 gal	\$27.00	\$1,593.00
	Boomspray - contract	1 acre/acre	59 acre	\$12.00	\$708.00
	Field Nutrition (lbs/acre): S 143.22				
<b>Total</b>				<b>\$39.00</b>	<b>\$2,301.00</b>
<b>Potato Harvest</b> Nov 30, 2016	Harvest	1 acre/acre	59 acre	\$50.00	\$2,950.00
	<b>Total</b>				<b>\$50.00</b>
<b>Potato Prep Fumigation</b> Dec 20, 2016	Vapam HL Soil Fumigant	40 gal/acre	2,360 gal	\$240.00	\$14,160.00
	Deep Ripping	1 acre/acre	59 acre	\$40.00	\$2,360.00
	<b>Total</b>				<b>\$280.00</b>
<b>Potato Fall Fertilizer</b> Dec 20, 2016	Valley 12-45-0-5-1Z	302 lbs/acre	17,818 lbs	\$82.26	\$4,853.62
	Valley 0-0-60	150 lbs/acre	8,850 lbs	\$25.92	\$1,529.28
	K-Mag	93 lbs/acre	5,487 lbs	\$25.44	\$1,501.24
	Elemental Sulphur 85%	117 lbs/acre	6,903 lbs	\$27.38	\$1,615.30
	Power Zinc 35 Granular	14 lbs/acre	826 lbs	\$7.93	\$467.85
	Agfinity Manganese Sulfate 32%	6.25 lbs/acre	368.75 lbs	\$4.61	\$272.14
	Variable Rate Ground - spreading 1	1 acre/acre	59 acre	\$14.00	\$826.00
Field Nutrition (lbs/acre): N 36.24 Phosphate 135.9 Potash 110.46 S 138.45 Mg 10.04 Mn 2 Zn 7.92					
<b>Total</b>				<b>\$187.55</b>	<b>\$11,065.43</b>
<b>Chem Total</b>				<b>\$429.80</b>	<b>\$25,358.16</b>
<b>Fert Total</b>				<b>\$554.10</b>	<b>\$32,691.81</b>
<b>Plan Total</b>				<b>\$1,195.42</b>	<b>\$70,529.65</b>

Potato	TOTAL COST			LOW		MED		HIGH	
59 acre	\$70,529.65			\$140.00 /ton		\$160.00 /ton		\$180.00 /ton	
	ton/acre	ton	BE \$/ton	\$	\$/acre	\$	\$/acre	\$	\$/acre
LOW	20	1,180	60	94,670	1,605	118,270	2,005	141,870	2,405
MED	25	1,475	48	135,970	2,305	165,470	2,805	194,970	3,305
HIGH	30	1,770	40	177,270	3,005	212,670	3,605	248,070	4,205

Field Nutrition (lbs/acre): **N** 357.35 **Phosphate** 209.65 **K2O** 0.2 **Potash** 110.46  
**S** 425.3 **Mg** 10.04 **Mn** 2 **Zn** 8.15 **Organic acids including Humic and Fulvic** 5.32

Reservoir 2 - 85.02 acre

2019	2018	2017	2016	2015
	Wheat - spring Alturas (wheat) 85.02 acre	Sugar Beet BTS 20RR28 (RR) 85.02 acre	<b>Potato</b> <b>Russet Burbank</b> <b>85.02 acre</b>	

No approved prescriptions for Reservoir 2 for 2016

SITUATION/ TIMING	INPUTS	RATE	TOTAL	COST/ ACRE	COST
<b>Potato Spring Fertilizer</b> Apr 14, 2016	Valley 21-0-0-24s	380 lbs/acre	32,307.6 lbs	\$57.46	\$4,884.91
Fertilizer Application	Variable Rate Ground - spreading 1	1 acre/acre	85.02 acre	\$10.00	\$850.20
	Field Nutrition (lbs/acre): <b>N</b> 79.8 <b>S</b> 91.2				
		<b>Total</b>		<b>\$67.46</b>	<b>\$5,735.11</b>
<b>Potato Seed Cutting</b> Apr 15, 2016	Seed - Treatment	1 acre/acre	85.02 acre	\$1.00	\$85.02
	Advise Four Flowable Insecticide	4 floz/100lb of seed	0 gal	\$0.00	\$0.00
	Power-Line Potato Seed Treat Mancozeb 6% Plus Bark	0.75 lbs/100lb of seed	0 lbs	\$0.00	\$0.00
		<b>Total</b>		<b>\$1.00</b>	<b>\$85.02</b>
<b>Potato Planting</b> May 31, 2016	Planting	1 acre/acre	85.02 acre	\$25.00	\$2,125.50
	Russet Burbank	28 lbs/acre	2,380.56 lbs	\$2.52	\$214.25
	Valley Agronomics 11-37-0	13 gal/acre	1,105.26 gal	\$53.37	\$4,537.31
	Actagro Liquid Humus 0-0-4	2 qt/acre	42.51 gal	\$7.50	\$637.65
	Winfield Liquid Zinc 7%	1 pt/acre	10.63 gal	\$0.75	\$63.76
	Moncut 70-DF	0.75 lbs/acre	63.76 lbs	\$27.00	\$2,295.54
	Field Nutrition (lbs/acre): <b>N</b> 17.16 <b>Phosphate</b> 57.72 <b>K2O</b> 0.2 <b>S</b> 0.04 <b>Zn</b> 0.09				
		<b>Total</b>		<b>\$116.14</b>	<b>\$9,874.02</b>
<b>Potato Herbicide</b> Jun 30, 2016	Prowl H2O Herbicide	1.5 pt/acre	15.94 gal	\$9.00	\$765.18
Self Propelled Boomspray	Boundary 6.5 EC Herbicide	2 pt/acre	21.26 gal	\$22.50	\$1,912.95
	Dimetric DF 75%	0.33 lbs/acre	28.06 lbs	\$4.29	\$364.74
	Boomspray application	1 acre/acre	85.02 acre	\$8.00	\$680.16
		<b>Total</b>		<b>\$43.79</b>	<b>\$3,723.03</b>
<b>White Mold/ Early Blight</b> Jul 31, 2016	Endura Fungicide	6 oz/acre	31.88 lbs	\$33.60	\$2,856.67
Boomspray	UPI Manzate Pro Stick	1 lbs/acre	85.02 lbs	\$5.70	\$484.61
	Boomspray application	1 acre/acre	85.02 acre	\$8.00	\$680.16
		<b>Total</b>		<b>\$47.30</b>	<b>\$4,021.45</b>
<b>White Mold/ Early Blight Application</b> Aug 31, 2016	Luna Tranquility	11 floz/acre	7.31 gal	\$34.37	\$2,922.56
Self Propelled Boomspray	Boomspray application	1 acre/acre	85.02 acre	\$8.00	\$680.16
		<b>Total</b>		<b>\$42.37</b>	<b>\$3,602.72</b>
<b>Potatoes-Fungicide/ Insecticide-Zing!, Abba Ultra, Masterlock</b> Sep 15, 2016	Zing!	1 qt/acre	21.26 gal	\$17.50	\$1,487.85
Aerial Spraying	ABBA Ultra	8 floz/acre	5.31 gal	\$6.56	\$557.94
	Masterlock	6 floz/acre	3.99 gal	\$1.17	\$99.63
	Spray/aerial	1 acre/acre	85.02 acre	\$10.00	\$850.20
		<b>Total</b>		<b>\$35.23</b>	<b>\$2,995.63</b>
<b>Potatoes-Desiccant-Reglone, Parazone, Aduro</b> Sep 30, 2016	Water Rate	20 gal/acre	1,700.4 gal		
Self Propelled Boomspray	Reglone Desiccant	2 pt/acre	21.26 gal	\$23.25	\$1,976.72
	Parazone 3SL	1 pt/acre	10.63 gal	\$3.75	\$318.82
	Aduro	2 pt/100gal	4.25 gal	\$1.10	\$93.52
	Boomspray application	1 acre/acre	85.02 acre	\$8.00	\$680.16
		<b>Total</b>		<b>\$36.10</b>	<b>\$3,069.22</b>

SITUATION/ TIMING	INPUTS	RATE	TOTAL	COST/ ACRE	COST
<b>Potato Irrigation/ Fertigation</b> Oct 15, 2016	Irrigation	1 acre/acre	85.02 acre	\$15.00	\$1,275.30
	Valley Agronomics 32-0-0	55 gal/acre	4,676.1 gal	\$137.66	\$11,703.71
	Thio-Sul (12-0-0-26S)	18.15 gal/acre	1,543.11 gal	\$40.82	\$3,470.25
	Actagro Structure 7-21-0	7 gal/acre	595.14 gal	\$56.00	\$4,761.12
	Field Nutrition (lbs/acre): N 224.15 Phosphate 16.03 S 52.38 Zn 0.14 Organic acids including Humic and Fulvic 5.32				
<b>Total</b>				<b>\$249.48</b>	<b>\$21,210.37</b>
<b>Stubble Digest Sulfuric Acid</b> Oct 15, 2016 Boomspray	Sulfuric Acid	30 gal/acre	2,550.6 gal	\$27.00	\$2,295.54
	Boomspray - contract	1 acre/acre	85.02 acre	\$12.00	\$1,020.24
	Field Nutrition (lbs/acre): S 143.22				
<b>Total</b>				<b>\$39.00</b>	<b>\$3,315.78</b>
<b>Potato Harvest</b> Nov 30, 2016	Harvest	1 acre/acre	85.02 acre	\$50.00	\$4,251.00
	<b>Total</b>				<b>\$50.00</b>
<b>Potato Prep Fumigation</b> Dec 20, 2016 Soil Shank Injection	Vapam HL Soil Fumigant	40 gal/acre	3,400.8 gal	\$240.00	\$20,404.80
	Deep Ripping	1 acre/acre	85.02 acre	\$40.00	\$3,400.80
	<b>Total</b>				<b>\$280.00</b>
<b>Potato Fall Fertilizer</b> Dec 20, 2016 Fertilizer Application	Valley 12-45-0-5-1Z	302 lbs/acre	25,676.04 lbs	\$82.26	\$6,994.15
	Valley 0-0-60	150 lbs/acre	12,753 lbs	\$25.92	\$2,203.72
	K-Mag	93 lbs/acre	7,906.86 lbs	\$25.44	\$2,163.32
	Elemental Sulphur 85%	117 lbs/acre	9,947.34 lbs	\$27.38	\$2,327.68
	Power Zinc 35 Granular	14 lbs/acre	1,190.28 lbs	\$7.93	\$674.17
	Agfinity Manganese Sulfate 32%	6.25 lbs/acre	531.38 lbs	\$4.61	\$392.15
	Variable Rate Ground - spreading 1	1 acre/acre	85.02 acre	\$14.00	\$1,190.28
	Field Nutrition (lbs/acre): N 36.24 Phosphate 135.9 Potash 110.46 S 138.45 Mg 10.04 Mn 2 Zn 7.92				
<b>Total</b>				<b>\$187.55</b>	<b>\$15,945.48</b>
<b>Chem Total</b>				<b>\$429.80</b>	<b>\$36,541.54</b>
<b>Fert Total</b>				<b>\$554.10</b>	<b>\$47,109.45</b>
<b>Plan Total</b>				<b>\$1,195.42</b>	<b>\$101,634.42</b>

Potato	TOTAL COST			LOW		MED		HIGH	
85.02 acre	\$101,634.42			\$140.00 /ton		\$160.00 /ton		\$180.00 /ton	
	ton/acre	ton	BE \$/ton	\$	\$/acre	\$	\$/acre	\$	\$/acre
LOW	20	1,700.4	60	136,422	1,605	170,430	2,005	204,438	2,405
MED	25	2,125.5	48	195,936	2,305	238,446	2,805	280,956	3,305
HIGH	30	2,550.6	40	255,450	3,005	306,462	3,605	357,474	4,205

Field Nutrition (lbs/acre): **N** 357.35 **Phosphate** 209.65 **K2O** 0.2 **Potash** 110.46  
**S** 425.3 **Mg** 10.04 **Mn** 2 **Zn** 8.15 **Organic acids including Humic and Fulvic** 5.32

## Reservoir 3 - 136.5 acre

2019	2018	2017	2016	2015
	Wheat - winter Dumas 136.5 acre	Sugar Beet BTS 20RR28 (RR) 136.5 acre	<b>Potato</b> <b>Russet Burbank</b> <b>136.5 acre</b>	

No approved prescriptions for Reservoir 3 for 2016

SITUATION/ TIMING	INPUTS	RATE	TOTAL	COST/ ACRE	COST
<b>Potato Spring Fertilizer</b> Apr 14, 2016 Fertilizer Application	Valley 21-0-0-24s Variable Rate Ground - spreading 1 Field Nutrition (lbs/acre): <b>N</b> 79.8 <b>S</b> 91.2	380 lbs/acre 1 acre/acre	51,870 lbs 136.5 acre	\$57.46 \$10.00	\$7,842.74 \$1,365.00
		<b>Total</b>		<b>\$67.46</b>	<b>\$9,207.74</b>
<b>Potato Seed Cutting</b> Apr 15, 2016	Seed - Treatment Advise Four Flowable Insecticide Power-Line Potato Seed Treat Mancozeb 6% Plus Bark	1 acre/acre 4 floz/100lb of seed 0.75 lbs/100lb of seed	136.5 acre 0 gal 0 lbs	\$1.00 \$0.00 \$0.00	\$136.50 \$0.00 \$0.00
		<b>Total</b>		<b>\$1.00</b>	<b>\$136.50</b>
<b>Potato Planting</b> May 31, 2016	Planting Russet Burbank Valley Agronomics 11-37-0 Actagro Liquid Humus 0-0-4 Winfield Liquid Zinc 7% Moncut 70-DF Field Nutrition (lbs/acre): <b>N</b> 17.16 <b>Phosphate</b> 57.72 <b>K2O</b> 0.2 <b>S</b> 0.04 <b>Zn</b> 0.09	1 acre/acre 28 lbs/acre 13 gal/acre 2 qt/acre 1 pt/acre 0.75 lbs/acre	136.5 acre 3,822 lbs 1,774.5 gal 68.25 gal 17.06 gal 102.38 lbs	\$25.00 \$2.52 \$53.37 \$7.50 \$0.75 \$27.00	\$3,412.50 \$343.98 \$7,284.68 \$1,023.75 \$102.38 \$3,685.50
		<b>Total</b>		<b>\$116.14</b>	<b>\$15,852.78</b>
<b>Potato Herbicide</b> Jun 30, 2016 Self Propelled Boomspray	Prowl H2O Herbicide Boundary 6.5 EC Herbicide Dimetric DF 75% Boomspray application	1.5 pt/acre 2 pt/acre 0.33 lbs/acre 1 acre/acre	25.59 gal 34.13 gal 45.05 lbs 136.5 acre	\$9.00 \$22.50 \$4.29 \$8.00	\$1,228.50 \$3,071.25 \$585.59 \$1,092.00
		<b>Total</b>		<b>\$43.79</b>	<b>\$5,977.34</b>
<b>White Mold/ Early Blight</b> Jul 31, 2016 Boomspray	Endura Fungicide UPI Manzate Pro Stick Boomspray application	6 oz/acre 1 lbs/acre 1 acre/acre	51.19 lbs 136.5 lbs 136.5 acre	\$33.60 \$5.70 \$8.00	\$4,586.40 \$778.05 \$1,092.00
		<b>Total</b>		<b>\$47.30</b>	<b>\$6,456.45</b>
<b>White Mold/ Early Blight Application</b> Aug 31, 2016 Self Propelled Boomspray	Luna Tranquility Boomspray application	11 floz/acre 1 acre/acre	11.73 gal 136.5 acre	\$34.37 \$8.00	\$4,692.19 \$1,092.00
		<b>Total</b>		<b>\$42.37</b>	<b>\$5,784.19</b>
<b>Potatoes-Fungicide/ Insecticide-Zing!, Abba Ultra, Masterlock</b> Sep 15, 2016 Aerial Spraying	Zing! ABBA Ultra Masterlock Spray/aerial	1 qt/acre 8 floz/acre 6 floz/acre 1 acre/acre	34.13 gal 8.53 gal 6.4 gal 136.5 acre	\$17.50 \$6.56 \$1.17 \$10.00	\$2,388.75 \$895.78 \$159.96 \$1,365.00
		<b>Total</b>		<b>\$35.23</b>	<b>\$4,809.49</b>
<b>Potatoes-Desiccant-Reglone, Parazone, Aduro</b> Sep 30, 2016 Self Propelled Boomspray	Water Rate Reglone Desiccant Parazone 3SL Aduro Boomspray application	20 gal/acre 2 pt/acre 1 pt/acre 2 pt/100gal 1 acre/acre	2,730 gal 34.13 gal 17.06 gal 6.83 gal 136.5 acre	\$23.25 \$3.75 \$1.10 \$8.00	\$3,173.63 \$511.87 \$150.15 \$1,092.00
		<b>Total</b>		<b>\$36.10</b>	<b>\$4,927.65</b>

SITUATION/ TIMING	INPUTS	RATE	TOTAL	COST/ ACRE	COST
<b>Potato Irrigation/ Fertigation</b> Oct 15, 2016 Fertigation	Irrigation	1 acre/acre	136.5 acre	\$15.00	\$2,047.50
	Valley Agronomics 32-0-0	55 gal/acre	7,507.5 gal	\$137.66	\$18,790.36
	Thio-Sul (12-0-0-26S)	18.15 gal/acre	2,477.48 gal	\$40.82	\$5,571.49
	Actagro Structure 7-21-0	7 gal/acre	955.5 gal	\$56.00	\$7,644.00
Field Nutrition (lbs/acre): N 224.15 Phosphate 16.03 S 52.38 Zn 0.14					
Organic acids including Humic and Fulvic 5.32					
<b>Total</b>				<b>\$249.48</b>	<b>\$34,053.35</b>
<b>Stubble Digest Sulfuric Acid</b> Oct 15, 2016 Boomspray	Sulfuric Acid	30 gal/acre	4,095 gal	\$27.00	\$3,685.50
	Boomspray - contract	1 acre/acre	136.5 acre	\$12.00	\$1,638.00
	Field Nutrition (lbs/acre): S 143.22				
<b>Total</b>				<b>\$39.00</b>	<b>\$5,323.50</b>
<b>Potato Harvest</b> Nov 30, 2016	Harvest	1 acre/acre	136.5 acre	\$50.00	\$6,825.00
	<b>Total</b>				<b>\$50.00</b>
<b>Potato Prep Fumigation</b> Dec 20, 2016 Soil Shank Injection	Vapam HL Soil Fumigant	40 gal/acre	5,460 gal	\$240.00	\$32,760.00
	Deep Ripping	1 acre/acre	136.5 acre	\$40.00	\$5,460.00
	<b>Total</b>				<b>\$280.00</b>
<b>Potato Fall Fertilizer</b> Dec 20, 2016 Fertilizer Application	Valley 12-45-0-5-1Z	302 lbs/acre	41,223 lbs	\$82.26	\$11,229.15
	Valley 0-0-60	150 lbs/acre	20,475 lbs	\$25.92	\$3,538.08
	K-Mag	93 lbs/acre	12,694.5 lbs	\$25.44	\$3,473.22
	Elemental Sulphur 85%	117 lbs/acre	15,970.5 lbs	\$27.38	\$3,737.10
	Power Zinc 35 Granular	14 lbs/acre	1,911 lbs	\$7.93	\$1,082.39
	Agfinity Manganese Sulfate 32%	6.25 lbs/acre	853.13 lbs	\$4.61	\$629.61
	Variable Rate Ground - spreading 1	1 acre/acre	136.5 acre	\$14.00	\$1,911.00
	Field Nutrition (lbs/acre): N 36.24 Phosphate 135.9 Potash 110.46 S 138.45 Mg 10.04 Mn 2 Zn 7.92				
<b>Total</b>				<b>\$187.55</b>	<b>\$25,600.53</b>
<b>Chem Total</b>				<b>\$429.80</b>	<b>\$58,667.61</b>
<b>Fert Total</b>				<b>\$554.10</b>	<b>\$75,634.43</b>
<b>Plan Total</b>				<b>\$1,195.42</b>	<b>\$163,174.53</b>

Potato	TOTAL COST			LOW		MED		HIGH	
136.5 acre	\$163,174.53			\$140.00 /ton		\$160.00 /ton		\$180.00 /ton	
	ton/acre	ton	BE \$/ton	\$	\$/acre	\$	\$/acre	\$	\$/acre
LOW	20	2,730	60	219,025	1,605	273,625	2,005	328,225	2,405
MED	25	3,412.5	48	314,575	2,305	382,825	2,805	451,075	3,305
HIGH	30	4,095	40	410,125	3,005	492,025	3,605	573,925	4,205

Field Nutrition (lbs/acre): **N** 110.95 **Phosphate** 50.44 **K2O** 50.4

Reservoir 4 - 40 acre

2019	2018	2017	2016	2015
Alfalfa	Sugar Beet	American Grape	<b>Wheat - winter (For Grain)</b> <b>Brundage 96</b> <b>40 acre</b>	
40 acre	40 acre	Christmas Rose		
		40 acre		

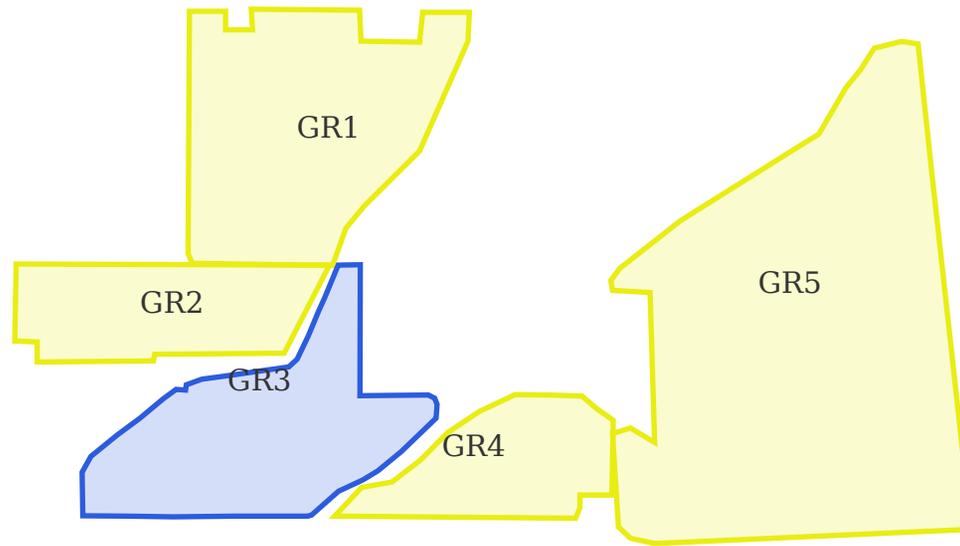
No approved prescriptions for Reservoir 4 for 2016

SITUATION/ TIMING	INPUTS	RATE	TOTAL	COST/ ACRE	COST
<b>Planting</b> Nov 30, 2015	Planting	1 acre/acre	40 acre	\$4.00	\$160.00
	Brundage 96	120 lbs/acre	4,800 lbs	\$9.96	\$398.40
<b>Total</b>				<b>\$13.96</b>	<b>\$558.40</b>
<b>Spring Fertilizer</b> Mar 31, 2016 Spreader	Andersons 46-0-0	218 lbs/acre	8,720 lbs	\$39.24	\$1,569.60
	Muriate of Potash 0-0-60	84 lbs/acre	3,360 lbs	\$16.80	\$672.00
	Agrium 11-52-0 MAP	97 lbs/acre	3,880 lbs	\$19.40	\$776.00
	Spreading fertilizer	1 acre/acre	40 acre	\$10.00	\$400.00
Field Nutrition (lbs/acre): <b>N</b> 110.95 <b>Phosphate</b> 50.44 <b>K2O</b> 50.4					
<b>Total</b>				<b>\$85.44</b>	<b>\$3,417.60</b>
<b>Herbicide Application</b> Apr 30, 2016 Self Propelled Boomspray	Water Rate	15 gal/acre	600 gal		
	Huskie Herbicide	15 floz/acre	4.69 gal	\$9.38	\$375.00
	Class Act NG	16 floz/acre	5 gal	\$2.50	\$100.00
	DuPont Aproach Fungicide	4 floz/acre	1.25 gal	\$5.00	\$200.00
	Spray/herbicide	1 acre/acre	40 acre	\$10.00	\$400.00
<b>Total</b>				<b>\$26.88</b>	<b>\$1,075.00</b>
<b>Ethephon</b> May 31, 2016 Aerial Spraying	Water Rate	5 gal/acre	200 gal		
	MANA Ethephon 2SL	1.5 pt/acre	7.5 gal	\$15.00	\$600.00
	Spray/aerial	1 acre/acre	40 acre	\$8.00	\$320.00
	Topaz	4 floz/acre	1.25 gal	\$1.87	\$75.00
<b>Total</b>				<b>\$24.87</b>	<b>\$995.00</b>
<b>Irrigation</b> Jul 31, 2016	Irrigation	1 acre/acre	40 acre	\$10.00	\$400.00
	<b>Total</b>				<b>\$10.00</b>
<b>Harvest</b> Sep 30, 2016	Harvest	1 acre/acre	40 acre	\$4.50	\$180.00
	<b>Total</b>				<b>\$4.50</b>
<b>Chem Total</b>				<b>\$33.75</b>	<b>\$1,350.00</b>
<b>Fert Total</b>				<b>\$75.44</b>	<b>\$3,017.60</b>
<b>Plan Total</b>				<b>\$165.65</b>	<b>\$6,626.00</b>

Wheat - winter (For Grain)	TOTAL COST			LOW		MED		HIGH	
	40 acre	bu	BE \$/bu	\$	\$/acre	\$	\$/acre	\$	\$/acre
LOW	100	4,000	1	7,374	184	9,374	234	11,374	284
MED	130	5,200	1	11,574	289	14,174	354	16,774	419
HIGH	150	6,000	1	14,374	359	17,374	434	20,374	509

# Grandview Aerial Overview

Potato  Wheat - winter 



## Farm Planning Summary - Grandview

FIELD	2019	2018	2017	2016	2015
Grandview 1 (Map: GR1)		Sugar Beet 98.96 acre	Potato Russet Burbank 98.96 acre	Wheat - winter (For Grain) Brundage 96 98.96 acre	
Grandview 2 (Map: GR2)		Sugar Beet 48.36 acre	Potato Russet Burbank 48.36 acre	Wheat - winter (For Grain) Brundage 96 48.36 acre	
Grandview 3 (Map: GR3)			Sugar Beet BTS 20RR28 (RR) 77.6 acre	Potato Russet Burbank 77.6 acre	
Grandview 4 (Map: GR4)			Potato Russet Burbank 40.87 acre	Wheat - winter (For Grain) Brundage 96 40.87 acre	
Grandview 5 (Map: GR5)			Potato Russet Burbank 223.37 acre	Wheat - winter (For Grain) Brundage 96 223.37 acre	

Field Nutrition (lbs/acre): N 110.95 Phosphate 50.44 K2O 50.4

Grandview 1 - 98.96 acre

2019	2018	2017	2016	2015
	Sugar Beet	Potato	<b>Wheat - winter (For Grain) Brundage 96 98.96 acre</b>	
	98.96 acre	Russet Burbank		
		98.96 acre		

No approved prescriptions for Grandview 1 for 2016

SITUATION/ TIMING	INPUTS	RATE	TOTAL	COST/ ACRE	COST	
<b>Spring Fertilizer</b> Mar 31, 2016 Spreader	Andersons 46-0-0	218 lbs/acre	21,573.28 lbs	\$39.24	\$3,883.19	
	Muriate of Potash 0-0-60	84 lbs/acre	8,312.64 lbs	\$16.80	\$1,662.53	
	Agrium 11-52-0 MAP	97 lbs/acre	9,599.12 lbs	\$19.40	\$1,919.82	
	Spreading fertilizer	1 acre/acre	98.96 acre	\$10.00	\$989.60	
	Field Nutrition (lbs/acre): N 110.95 Phosphate 50.44 K2O 50.4			<b>Total</b>	<b>\$85.44</b>	<b>\$8,455.14</b>
<b>Herbicide Application</b> Apr 30, 2016 Self Propelled Boomspray	Water Rate	15 gal/acre	1,484.4 gal			
	Huskie Herbicide	15 floz/acre	11.6 gal	\$9.38	\$927.75	
	Class Act NG	16 floz/acre	12.37 gal	\$2.50	\$247.40	
	DuPont Aproach Fungicide	4 floz/acre	3.09 gal	\$5.00	\$494.80	
	Spray/herbicide	1 acre/acre	98.96 acre	\$10.00	\$989.60	
			<b>Total</b>	<b>\$26.88</b>	<b>\$2,659.55</b>	
<b>Ethephon</b> May 31, 2016 Aerial Spraying	Water Rate	5 gal/acre	494.8 gal			
	MANA Ethephon 2SL	1.5 pt/acre	18.55 gal	\$15.00	\$1,484.40	
	Spray/aerial	1 acre/acre	98.96 acre	\$8.00	\$791.68	
	Topaz	4 floz/acre	3.09 gal	\$1.87	\$185.55	
				<b>Total</b>	<b>\$24.88</b>	<b>\$2,461.63</b>
<b>Irrigation</b> Jul 31, 2016	Irrigation	1 acre/acre	98.96 acre	\$10.00	\$989.60	
			<b>Total</b>	<b>\$10.00</b>	<b>\$989.60</b>	
<b>Harvest</b> Sep 30, 2016	Harvest	1 acre/acre	98.96 acre	\$4.50	\$445.32	
			<b>Total</b>	<b>\$4.50</b>	<b>\$445.32</b>	
<b>Planting</b> Nov 30, 2016	Planting	1 acre/acre	98.96 acre	\$4.00	\$395.84	
	Brundage 96	120 lbs/acre	11,875.2 lbs	\$9.96	\$985.64	
				<b>Total</b>	<b>\$13.96</b>	<b>\$1,381.48</b>
				<b>Chem Total</b>	<b>\$33.75</b>	<b>\$3,339.90</b>
				<b>Fert Total</b>	<b>\$75.44</b>	<b>\$7,465.54</b>
				<b>Plan Total</b>	<b>\$165.65</b>	<b>\$16,392.72</b>

Wheat - winter (For Grain)

98.96 acre	TOTAL COST			LOW		MED		HIGH	
	bu/acre	bu	BE \$/bu	\$	\$/acre	\$	\$/acre	\$	\$/acre
		\$16,392.72		\$3.50 /bu		\$4.00 /bu		\$4.50 /bu	
LOW	100	9,896	1	18,243	184	23,191	234	28,139	284
MED	130	12,864.8	1	28,634	289	35,066	354	41,499	419
HIGH	150	14,844	1	35,561	359	42,983	434	50,405	509

Field Nutrition (lbs/acre): **N** 110.95 **Phosphate** 50.44 **K2O** 50.4

Grandview 2 - 48.36 acre

2019	2018	2017	2016	2015
	Sugar Beet	Potato	<b>Wheat - winter (For Grain) Brundage 96 48.36 acre</b>	
	48.36 acre	Russet Burbank		
		48.36 acre		

No approved prescriptions for Grandview 2 for 2016

SITUATION/ TIMING	INPUTS	RATE	TOTAL	COST/ ACRE	COST
<b>Spring Fertilizer</b> Mar 31, 2016 Spreader	Andersons 46-0-0	218 lbs/acre	10,542.48 lbs	\$39.24	\$1,897.65
	Muriate of Potash 0-0-60	84 lbs/acre	4,062.24 lbs	\$16.80	\$812.45
	Agrium 11-52-0 MAP	97 lbs/acre	4,690.92 lbs	\$19.40	\$938.18
	Spreading fertilizer	1 acre/acre	48.36 acre	\$10.00	\$483.60
	Field Nutrition (lbs/acre): <b>N</b> 110.95 <b>Phosphate</b> 50.44 <b>K2O</b> 50.4			<b>Total</b>	<b>\$85.44</b>
<b>Herbicide Application</b> Apr 30, 2016 Self Propelled Boomspray	Water Rate	15 gal/acre	725.4 gal		
	Huskie Herbicide	15 floz/acre	5.67 gal	\$9.38	\$453.38
	Class Act NG	16 floz/acre	6.05 gal	\$2.50	\$120.90
	DuPont Aproach Fungicide	4 floz/acre	1.51 gal	\$5.00	\$241.80
	Spray/herbicide	1 acre/acre	48.36 acre	\$10.00	\$483.60
			<b>Total</b>	<b>\$26.88</b>	<b>\$1,299.68</b>
<b>Ethephon</b> May 31, 2016 Aerial Spraying	Water Rate	5 gal/acre	241.8 gal		
	MANA Ethephon 2SL	1.5 pt/acre	9.07 gal	\$15.00	\$725.40
	Spray/aerial	1 acre/acre	48.36 acre	\$8.00	\$386.88
	Topaz	4 floz/acre	1.51 gal	\$1.87	\$90.68
			<b>Total</b>	<b>\$24.88</b>	<b>\$1,202.96</b>
<b>Irrigation</b> Jul 31, 2016	Irrigation	1 acre/acre	48.36 acre	\$10.00	\$483.60
			<b>Total</b>	<b>\$10.00</b>	<b>\$483.60</b>
<b>Harvest</b> Sep 30, 2016	Harvest	1 acre/acre	48.36 acre	\$4.50	\$217.62
			<b>Total</b>	<b>\$4.50</b>	<b>\$217.62</b>
<b>Planting</b> Nov 30, 2016	Planting	1 acre/acre	48.36 acre	\$4.00	\$193.44
	Brundage 96	120 lbs/acre	5,803.2 lbs	\$9.96	\$481.67
			<b>Total</b>	<b>\$13.96</b>	<b>\$675.11</b>
				<b>Chem Total</b>	<b>\$33.75 \$1,632.15</b>
				<b>Fert Total</b>	<b>\$75.44 \$3,648.28</b>
				<b>Plan Total</b>	<b>\$165.65 \$8,010.83</b>

Wheat - winter (For Grain)	TOTAL COST			LOW		MED		HIGH	
	48.36 acre	bu	BE \$/bu	\$	\$/acre	\$	\$/acre	\$	\$/acre
	bu/acre	bu	BE \$/bu	\$	\$/acre	\$	\$/acre	\$	\$/acre
LOW	100	4,836	1	8,915	184	11,333	234	13,751	284
MED	130	6,286.8	1	13,993	289	17,136	354	20,280	419
HIGH	150	7,254	1	17,378	359	21,005	434	24,632	509

Field Nutrition (lbs/acre): **N** 357.35 **Phosphate** 209.65 **K2O** 0.2 **Potash** 110.46  
**S** 425.3 **Mg** 10.04 **Mn** 2 **Zn** 8.15 **Organic acids including Humic and Fulvic** 5.32

## Grandview 3 - 77.6 acre

2019	2018	2017	2016	2015
		Sugar Beet BTS 20RR28 (RR) 77.6 acre	<b>Potato</b> <b>Russet Burbank</b> <b>77.6 acre</b>	

No approved prescriptions for Grandview 3 for 2016

SITUATION/ TIMING	INPUTS	RATE	TOTAL	COST/ ACRE	COST
<b>Potato Spring Fertilizer</b> Apr 14, 2016	Valley 21-0-0-24s	380 lbs/acre	29,488 lbs	\$57.46	\$4,458.59
	Variable Rate Ground - spreading 1	1 acre/acre	77.6 acre	\$10.00	\$776.00
Fertilizer Application	Field Nutrition (lbs/acre): <b>N</b> 79.8 <b>S</b> 91.2				
			<b>Total</b>	<b>\$67.46</b>	<b>\$5,234.59</b>
<b>Potato Seed Cutting</b> Apr 15, 2016	Seed - Treatment	1 acre/acre	77.6 acre	\$1.00	\$77.60
	Advise Four Flowable Insecticide	4 floz/100lb of seed	0 gal	\$0.00	\$0.00
	Power-Line Potato Seed Treat Mancozeb 6% Plus Bark	0.75 lbs/100lb of seed	0 lbs	\$0.00	\$0.00
			<b>Total</b>	<b>\$1.00</b>	<b>\$77.60</b>
<b>Potato Planting</b> May 31, 2016	Planting	1 acre/acre	77.6 acre	\$25.00	\$1,940.00
	Russet Burbank	28 lbs/acre	2,172.8 lbs	\$2.52	\$195.55
	Valley Agronomics 11-37-0	13 gal/acre	1,008.8 gal	\$53.37	\$4,141.33
	Actagro Liquid Humus 0-0-4	2 qt/acre	38.8 gal	\$7.50	\$582.00
	Winfield Liquid Zinc 7%	1 pt/acre	9.7 gal	\$0.75	\$58.20
	Moncut 70-DF	0.75 lbs/acre	58.2 lbs	\$27.00	\$2,095.20
	Field Nutrition (lbs/acre): <b>N</b> 17.16 <b>Phosphate</b> 57.72 <b>K2O</b> 0.2 <b>S</b> 0.04 <b>Zn</b> 0.09				
			<b>Total</b>	<b>\$116.14</b>	<b>\$9,012.28</b>
<b>Potato Herbicide</b> Jun 30, 2016	Prowl H2O Herbicide	1.5 pt/acre	14.55 gal	\$9.00	\$698.40
	Boundary 6.5 EC Herbicide	2 pt/acre	19.4 gal	\$22.50	\$1,746.00
	Dimetric DF 75%	0.33 lbs/acre	25.61 lbs	\$4.29	\$332.90
Self Propelled Boomspray	Boomspray application	1 acre/acre	77.6 acre	\$8.00	\$620.80
			<b>Total</b>	<b>\$43.79</b>	<b>\$3,398.10</b>
<b>White Mold/ Early Blight</b> Jul 31, 2016	Endura Fungicide	6 oz/acre	29.1 lbs	\$33.60	\$2,607.36
	UPI Manzate Pro Stick	1 lbs/acre	77.6 lbs	\$5.70	\$442.32
Boomspray	Boomspray application	1 acre/acre	77.6 acre	\$8.00	\$620.80
			<b>Total</b>	<b>\$47.30</b>	<b>\$3,670.48</b>
<b>White Mold/ Early Blight Application</b> Aug 31, 2016	Luna Tranquility	11 floz/acre	6.67 gal	\$34.38	\$2,667.50
Self Propelled Boomspray	Boomspray application	1 acre/acre	77.6 acre	\$8.00	\$620.80
			<b>Total</b>	<b>\$42.38</b>	<b>\$3,288.30</b>
<b>Potatoes-Fungicide/ Insecticide-Zing!, Abba Ultra, Masterlock</b> Sep 15, 2016	Zing!	1 qt/acre	19.4 gal	\$17.50	\$1,358.00
	ABBA Ultra	8 floz/acre	4.85 gal	\$6.56	\$509.25
	Masterlock	6 floz/acre	3.64 gal	\$1.17	\$90.94
Aerial Spraying	Spray/aerial	1 acre/acre	77.6 acre	\$10.00	\$776.00
			<b>Total</b>	<b>\$35.23</b>	<b>\$2,734.19</b>
<b>Potatoes-Desiccant-Reglone, Parazone, Aduro</b> Sep 30, 2016	Water Rate	20 gal/acre	1,552 gal		
	Reglone Desiccant	2 pt/acre	19.4 gal	\$23.25	\$1,804.20
	Parazone 3SL	1 pt/acre	9.7 gal	\$3.75	\$291.00
	Aduro	2 pt/100gal	3.88 gal	\$1.10	\$85.36
Self Propelled Boomspray	Boomspray application	1 acre/acre	77.6 acre	\$8.00	\$620.80
			<b>Total</b>	<b>\$36.10</b>	<b>\$2,801.36</b>

SITUATION/ TIMING	INPUTS	RATE	TOTAL	COST/ ACRE	COST
<b>Potato Irrigation/ Fertigation</b> Oct 15, 2016 Fertigation	Irrigation	1 acre/acre	77.6 acre	\$15.00	\$1,164.00
	Valley Agronomics 32-0-0	55 gal/acre	4,268 gal	\$137.66	\$10,682.28
	Thio-Sul (12-0-0-26S)	18.15 gal/acre	1,408.44 gal	\$40.82	\$3,167.38
	Actagro Structure 7-21-0	7 gal/acre	543.2 gal	\$56.00	\$4,345.60
	Field Nutrition (lbs/acre): N 224.15 Phosphate 16.03 S 52.38 Zn 0.14 Organic acids including Humic and Fulvic 5.32				
<b>Total</b>				<b>\$249.48</b>	<b>\$19,359.27</b>
<b>Stubble Digest Sulfuric Acid</b> Oct 15, 2016 Boomspray	Sulfuric Acid	30 gal/acre	2,328 gal	\$27.00	\$2,095.20
	Boomspray - contract	1 acre/acre	77.6 acre	\$12.00	\$931.20
	Field Nutrition (lbs/acre): S 143.22				
<b>Total</b>				<b>\$39.00</b>	<b>\$3,026.40</b>
<b>Potato Harvest</b> Nov 30, 2016	Harvest	1 acre/acre	77.6 acre	\$50.00	\$3,880.00
	<b>Total</b>				<b>\$50.00</b>
<b>Potato Prep Fumigation</b> Dec 20, 2016 Soil Shank Injection	Vapam HL Soil Fumigant	40 gal/acre	3,104 gal	\$240.00	\$18,624.00
	Deep Ripping	1 acre/acre	77.6 acre	\$40.00	\$3,104.00
	<b>Total</b>				<b>\$280.00</b>
<b>Potato Fall Fertilizer</b> Dec 20, 2016 Fertilizer Application	Valley 12-45-0-5-1Z	302 lbs/acre	23,435.2 lbs	\$82.26	\$6,383.75
	Valley 0-0-60	150 lbs/acre	11,640 lbs	\$25.92	\$2,011.39
	K-Mag	93 lbs/acre	7,216.8 lbs	\$25.44	\$1,974.52
	Elemental Sulphur 85%	117 lbs/acre	9,079.2 lbs	\$27.38	\$2,124.53
	Power Zinc 35 Granular	14 lbs/acre	1,086.4 lbs	\$7.93	\$615.34
	Agfinity Manganese Sulfate 32%	6.25 lbs/acre	485 lbs	\$4.61	\$357.93
	Variable Rate Ground - spreading 1	1 acre/acre	77.6 acre	\$14.00	\$1,086.40
Field Nutrition (lbs/acre): N 36.24 Phosphate 135.9 Potash 110.46 S 138.45 Mg 10.04 Mn 2 Zn 7.92					
<b>Total</b>				<b>\$187.55</b>	<b>\$14,553.86</b>
<b>Chem Total</b>				<b>\$429.80</b>	<b>\$33,352.43</b>
<b>Fert Total</b>				<b>\$554.10</b>	<b>\$42,998.04</b>
<b>Plan Total</b>				<b>\$1,195.42</b>	<b>\$92,764.42</b>

Potato	TOTAL COST			LOW		MED		HIGH	
77.6 acre	\$92,764.42			\$140.00 /ton		\$160.00 /ton		\$180.00 /ton	
	ton/acre	ton	BE \$/ton	\$	\$/acre	\$	\$/acre	\$	\$/acre
LOW	20	1,552	60	124,516	1,605	155,556	2,005	186,596	2,405
MED	25	1,940	48	178,836	2,305	217,636	2,805	256,436	3,305
HIGH	30	2,328	40	233,156	3,005	279,716	3,605	326,276	4,205

Field Nutrition (lbs/acre): **N** 110.95 **Phosphate** 50.44 **K2O** 50.4

**Grandview 4 - 40.87 acre**

2019	2018	2017	2016	2015
		Potato Russet Burbank 40.87 acre	<b>Wheat - winter (For Grain) Brundage 96 40.87 acre</b>	

No approved prescriptions for Grandview 4 for 2016

SITUATION/ TIMING	INPUTS	RATE	TOTAL	COST/ ACRE	COST
<b>Spring Fertilizer</b> Mar 31, 2016 Spreader	Andersons 46-0-0	218 lbs/acre	8,909.66 lbs	\$39.24	\$1,603.74
	Muriate of Potash 0-0-60	84 lbs/acre	3,433.08 lbs	\$16.80	\$686.62
	Agrium 11-52-0 MAP	97 lbs/acre	3,964.39 lbs	\$19.40	\$792.88
	Spreading fertilizer	1 acre/acre	40.87 acre	\$10.00	\$408.70
	Field Nutrition (lbs/acre): <b>N</b> 110.95 <b>Phosphate</b> 50.44 <b>K2O</b> 50.4			<b>Total</b>	<b>\$85.44</b>
<b>Herbicide Application</b> Apr 30, 2016 Self Propelled Boomspray	Water Rate	15 gal/acre	613.1 gal		
	Huskie Herbicide	15 floz/acre	4.79 gal	\$9.38	\$383.16
	Class Act NG	16 floz/acre	5.11 gal	\$2.50	\$102.18
	DuPont Aproach Fungicide	4 floz/acre	1.28 gal	\$5.00	\$204.35
	Spray/herbicide	1 acre/acre	40.87 acre	\$10.00	\$408.70
			<b>Total</b>	<b>\$26.88</b>	<b>\$1,098.38</b>
<b>Ethephon</b> May 31, 2016 Aerial Spraying	Water Rate	5 gal/acre	204.4 gal		
	MANA Ethephon 2SL	1.5 pt/acre	7.66 gal	\$15.00	\$613.05
	Spray/aerial	1 acre/acre	40.87 acre	\$8.00	\$326.96
	Topaz	4 floz/acre	1.28 gal	\$1.87	\$76.63
			<b>Total</b>	<b>\$24.87</b>	<b>\$1,016.64</b>
<b>Irrigation</b> Jul 31, 2016	Irrigation	1 acre/acre	40.87 acre	\$10.00	\$408.70
			<b>Total</b>	<b>\$10.00</b>	<b>\$408.70</b>
<b>Harvest</b> Sep 30, 2016	Harvest	1 acre/acre	40.87 acre	\$4.50	\$183.92
			<b>Total</b>	<b>\$4.50</b>	<b>\$183.92</b>
<b>Planting</b> Nov 30, 2016	Planting	1 acre/acre	40.87 acre	\$4.00	\$163.48
	Brundage 96	120 lbs/acre	4,904.4 lbs	\$9.96	\$407.07
			<b>Total</b>	<b>\$13.96</b>	<b>\$570.55</b>
				<b>Chem Total</b>	<b>\$33.75 \$1,379.36</b>
				<b>Fert Total</b>	<b>\$75.44 \$3,083.23</b>
				<b>Plan Total</b>	<b>\$165.65 \$6,770.12</b>

Wheat - winter (For Grain)	TOTAL COST			LOW		MED		HIGH		
	40.87 acre	bu/acre	bu	BE \$/bu	\$	\$/acre	\$	\$/acre	\$	\$/acre
					\$3.50 /bu		\$4.00 /bu		\$4.50 /bu	
LOW	100	4,087	1	7,534	184	9,578	234	11,621	284	
MED	130	5,313.1	1	11,826	289	14,482	354	17,139	419	
HIGH	150	6,130.5	1	14,687	359	17,752	434	20,817	509	

Field Nutrition (lbs/acre): **N** 110.95 **Phosphate** 50.44 **K2O** 50.4

Grandview 5 - 223.37 acre

2019	2018	2017	2016	2015
		Potato Russet Burbank 223.37 acre	<b>Wheat - winter (For Grain) Brundage 96 223.37 acre</b>	

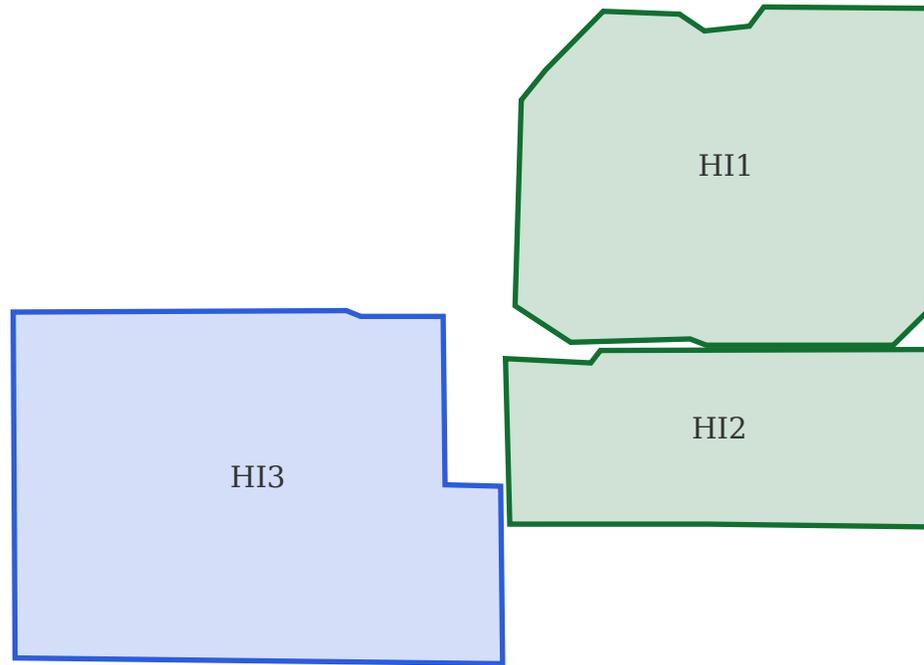
No approved prescriptions for Grandview 5 for 2016

SITUATION/ TIMING	INPUTS	RATE	TOTAL	COST/ ACRE	COST	
<b>Spring Fertilizer</b> Mar 31, 2016 Spreader	Andersons 46-0-0	218 lbs/acre	48,694.66 lbs	\$39.24	\$8,765.04	
	Muriate of Potash 0-0-60	84 lbs/acre	18,763.08 lbs	\$16.80	\$3,752.62	
	Agrium 11-52-0 MAP	97 lbs/acre	21,666.89 lbs	\$19.40	\$4,333.38	
	Spreading fertilizer	1 acre/acre	223.37 acre	\$10.00	\$2,233.70	
	Field Nutrition (lbs/acre): <b>N</b> 110.95 <b>Phosphate</b> 50.44 <b>K2O</b> 50.4			<b>Total</b>	<b>\$85.44</b>	<b>\$19,084.73</b>
<b>Herbicide Application</b> Apr 30, 2016 Self Propelled Boomspray	Water Rate	15 gal/acre	3,350.6 gal			
	Huskie Herbicide	15 floz/acre	26.18 gal	\$9.38	\$2,094.09	
	Class Act NG	16 floz/acre	27.92 gal	\$2.50	\$558.43	
	DuPont Aproach Fungicide	4 floz/acre	6.98 gal	\$5.00	\$1,116.85	
	Spray/herbicide	1 acre/acre	223.37 acre	\$10.00	\$2,233.70	
			<b>Total</b>	<b>\$26.88</b>	<b>\$6,003.07</b>	
<b>Ethephon</b> May 31, 2016 Aerial Spraying	Water Rate	5 gal/acre	1,116.9 gal			
	MANA Ethephon 2SL	1.5 pt/acre	41.88 gal	\$15.00	\$3,350.55	
	Spray/aerial	1 acre/acre	223.37 acre	\$8.00	\$1,786.96	
	Topaz	4 floz/acre	6.98 gal	\$1.87	\$418.82	
			<b>Total</b>	<b>\$24.88</b>	<b>\$5,556.33</b>	
<b>Irrigation</b> Jul 31, 2016	Irrigation	1 acre/acre	223.37 acre	\$10.00	\$2,233.70	
				<b>Total</b>	<b>\$10.00</b>	<b>\$2,233.70</b>
<b>Harvest</b> Sep 30, 2016	Harvest	1 acre/acre	223.37 acre	\$4.50	\$1,005.17	
				<b>Total</b>	<b>\$4.50</b>	<b>\$1,005.17</b>
<b>Planting</b> Nov 30, 2016	Planting	1 acre/acre	223.37 acre	\$4.00	\$893.48	
	Brundage 96	120 lbs/acre	26,804.4 lbs	\$9.96	\$2,224.77	
				<b>Total</b>	<b>\$13.96</b>	<b>\$3,118.25</b>
				<b>Chem Total</b>	<b>\$33.75</b>	<b>\$7,538.74</b>
				<b>Fert Total</b>	<b>\$75.44</b>	<b>\$16,851.03</b>
				<b>Plan Total</b>	<b>\$165.65</b>	<b>\$37,001.24</b>

Wheat - winter (For Grain)	TOTAL COST			LOW		MED		HIGH	
	223.37 acre	\$37,001.24		\$3.50 /bu		\$4.00 /bu		\$4.50 /bu	
	bu/acre	bu	BE \$/bu	\$	\$/acre	\$	\$/acre	\$	\$/acre
LOW	100	22,337	1	41,178	184	52,347	234	63,515	284
MED	130	29,038.1	1	64,632	289	79,151	354	93,670	419
HIGH	150	33,505.5	1	80,268	359	97,021	434	113,774	509

# Highway 39 Aerial Overview

Potato ■ Sugar Beet ■



## Farm Planning Summary - Highway 39

FIELD	2019	2018	2017	2016	2015
Highway 1 (Map: HI1)			Wheat - winter (For Grain) Brundage 96 127.97 acre	Sugar Beet BTS 20RR28 (RR) 127.97 acre	
Highway 2 (Map: HI2)			Wheat - winter (For Grain) Brundage 96 71.53 acre	Sugar Beet Crystal A399NT 71.53 acre	
Highway 3 (Map: HI3)			Sugar Beet BTS 20RR28 (RR) 155.54 acre	Potato Russet Burbank 155.54 acre	

Field Nutrition (lbs/acre): N 79.63

Highway 1 - 127.97 acre

2019	2018	2017	2016	2015
		Wheat - winter (For Grain) Brundage 96 127.97 acre	<b>Sugar Beet BTS 20RR28 (RR) 127.97 acre</b>	

No approved prescriptions for Highway 1 for 2016

SITUATION/ TIMING	INPUTS	RATE	TOTAL	COST/ ACRE	COST	
<b>Sugar Beets- Herbicide/ Insecticide- Round Up Power Max, Stallion, Class Act, Interlock</b> May 31, 2016 Boomspray	Roundup PowerMAX Herbicide	24 floz/acre	23.99 gal	\$4.88	\$623.85	
	Stallion EC Insecticide	8.5 floz/acre	8.5 gal	\$6.64	\$849.80	
	Class Act NG	2.5 gal/100gal	0 gal	\$0.00	\$0.00	
	InterLock	4 floz/acre	4 gal	\$2.06	\$263.94	
	Boomspray application	1 acre/acre	127.97 acre	\$8.00	\$1,023.76	
			<b>Total</b>	<b>\$21.58</b>	<b>\$2,761.35</b>	
<b>Planting</b> May 31, 2016	Planting	1 acre/acre	127.97 acre	\$25.00	\$3,199.25	
	BTS 20RR28	140 lbs/acre	17,915.8 lbs	\$70.00	\$8,957.90	
				<b>Total</b>	<b>\$95.00</b>	<b>\$12,157.15</b>
<b>Sugar Beet Fertilizer</b> May 31, 2016	Valley Agronomics 32-0-0	22.5 gal/acre	2,879.33 gal	\$56.31	\$7,206.60	
	Field Nutrition (lbs/acre): N 79.63				<b>Total</b>	<b>\$56.31</b>
<b>Sugar Beets- Herbicide/ Insecticide- Round-Up PM, Class Act NG, Clorpyrifos 4E, Interlock</b> Jun 30, 2016 Broadcast	Water Rate	10 gal/acre	1,279.7 gal			
	Roundup PowerMAX Herbicide	32 floz/acre	31.99 gal	\$6.50	\$831.81	
	Class Act NG	16 floz/acre	16 gal	\$1.75	\$223.95	
	Arysta Chlorpyrifos 4E AG	1.5 pt/acre	23.99 gal	\$11.44	\$1,463.66	
	InterLock	4 floz/acre	4 gal	\$2.06	\$263.94	
Boomspray application	1 acre/acre	127.97 acre	\$8.00	\$1,023.76		
			<b>Total</b>	<b>\$29.75</b>	<b>\$3,807.11</b>	
<b>Sugar Beets- Fungicide- Topaz, Micronized Sulfur, Masterlock</b> Sep 30, 2016 Aerial Spraying	Topaz	4 floz/acre	4 gal	\$2.66	\$339.92	
	UPI Microthiol Disperss	2 lbs/acre	255.94 lbs	\$7.46	\$954.66	
	Masterlock	6 floz/acre	6 gal	\$1.27	\$161.96	
	Spray/aerial	1 acre/acre	127.97 acre	\$10.00	\$1,279.70	
			<b>Total</b>	<b>\$21.38</b>	<b>\$2,736.24</b>	
<b>Irrigation</b> Oct 15, 2016	Irrigation	1 acre/acre	127.97 acre	\$15.00	\$1,919.55	
				<b>Total</b>	<b>\$15.00</b>	<b>\$1,919.55</b>
<b>Sugar Beet Harvest</b> Nov 15, 2016	Harvest	1 acre/acre	127.97 acre	\$50.00	\$6,398.50	
				<b>Total</b>	<b>\$50.00</b>	<b>\$6,398.50</b>
				<b>Chem Total</b>	<b>\$46.71</b>	<b>\$5,977.48</b>
				<b>Fert Total</b>	<b>\$56.31</b>	<b>\$7,206.60</b>
				<b>Plan Total</b>	<b>\$289.02</b>	<b>\$36,986.50</b>

Sugar Beet	TOTAL COST			LOW		MED		HIGH	
127.97 acre	\$36,986.50			\$40.00 /ton		\$45.00 /ton		\$50.00 /ton	
	ton/acre	ton	BE \$/ton	\$	\$/acre	\$	\$/acre	\$	\$/acre
LOW	38	4,862.86	7	157,528	1,231	181,842	1,421	206,157	1,611
MED	43	5,502.71	6	183,122	1,431	210,635	1,646	238,149	1,861
HIGH	48	6,142.56	6	208,716	1,631	239,429	1,871	270,142	2,111

Field Nutrition (lbs/acre): N 79.63

Highway 2 - 71.53 acre

2019	2018	2017	2016	2015
		Wheat - winter (For Grain) Brundage 96 71.53 acre	<b>Sugar Beet Crystal A399NT 71.53 acre</b>	

No approved prescriptions for Highway 2 for 2016

SITUATION/ TIMING	INPUTS	RATE	TOTAL	COST/ ACRE	COST
<b>Sugar Beets- Herbicide/ Insecticide- Round Up Power Max, Stallion, Class Act, Interlock</b> May 31, 2016 Boomspray	Roundup PowerMAX Herbicide	24 floz/acre	13.41 gal	\$4.88	\$348.71
	Stallion EC Insecticide	8.5 floz/acre	4.75 gal	\$6.64	\$475.00
	Class Act NG	2.5 gal/100gal	0 gal	\$0.00	\$0.00
	InterLock	4 floz/acre	2.24 gal	\$2.06	\$147.53
	Boomspray application	1 acre/acre	71.53 acre	\$8.00	\$572.24
			<b>Total</b>	<b>\$21.58</b>	<b>\$1,543.48</b>
<b>Sugar Beet Fertilizer</b> May 31, 2016	Valley Agronomics 32-0-0	22.5 gal/acre	1,609.43 gal	\$56.31	\$4,028.19
	Field Nutrition (lbs/acre): N 79.63				
			<b>Total</b>	<b>\$56.31</b>	<b>\$4,028.19</b>
<b>Planting</b> May 31, 2016	Crystal A399NT	140 lbs/acre	10,014.2 lbs	\$74.20	\$5,307.53
	Planting	1 acre/acre	71.53 acre	\$25.00	\$1,788.25
				<b>Total</b>	<b>\$99.20</b>
<b>Sugar Beets- Herbicide/ Insecticide- Round-Up PM, Class Act NG, Clorpyrifos 4E, Interlock</b> Jun 30, 2016 Broadcast	Water Rate	10 gal/acre	715.3 gal		
	Roundup PowerMAX Herbicide	32 floz/acre	17.88 gal	\$6.50	\$464.95
	Class Act NG	16 floz/acre	8.94 gal	\$1.75	\$125.18
	Arysta Chlorpyrifos 4E AG	1.5 pt/acre	13.41 gal	\$11.44	\$818.12
	InterLock	4 floz/acre	2.24 gal	\$2.06	\$147.53
	Boomspray application	1 acre/acre	71.53 acre	\$8.00	\$572.24
			<b>Total</b>	<b>\$29.75</b>	<b>\$2,128.02</b>
<b>Sugar Beets- Fungicide- Topaz, Micronized Sulfur, Masterlock</b> Sep 30, 2016 Aerial Spraying	Topaz	4 floz/acre	2.24 gal	\$2.66	\$190.00
	UPI Microthiol Disperss	2 lbs/acre	143.06 lbs	\$7.46	\$533.61
	Masterlock	6 floz/acre	3.35 gal	\$1.27	\$90.53
	Spray/aerial	1 acre/acre	71.53 acre	\$10.00	\$715.30
			<b>Total</b>	<b>\$21.38</b>	<b>\$1,529.45</b>
<b>Irrigation</b> Oct 15, 2016	Irrigation	1 acre/acre	71.53 acre	\$15.00	\$1,072.95
				<b>Total</b>	<b>\$15.00</b>
<b>Sugar Beet Harvest</b> Nov 15, 2016	Harvest	1 acre/acre	71.53 acre	\$50.00	\$3,576.50
				<b>Total</b>	<b>\$50.00</b>
			<b>Chem Total</b>	<b>\$46.71</b>	<b>\$3,341.17</b>
			<b>Fert Total</b>	<b>\$56.31</b>	<b>\$4,028.19</b>
			<b>Plan Total</b>	<b>\$293.22</b>	<b>\$20,974.37</b>

Sugar Beet	TOTAL COST			LOW		MED		HIGH	
71.53 acre	\$20,974.37			\$40.00 /ton		\$45.00 /ton		\$50.00 /ton	
	ton/acre	ton	BE \$/ton	\$	\$/acre	\$	\$/acre	\$	\$/acre
LOW	38	2,718.14	7	87,751	1,227	101,342	1,417	114,933	1,607
MED	43	3,075.79	6	102,057	1,427	117,436	1,642	132,815	1,857
HIGH	48	3,433.44	6	116,363	1,627	133,530	1,867	150,698	2,107

Field Nutrition (lbs/acre): **N** 357.35 **Phosphate** 209.65 **K2O** 0.2 **Potash** 110.46  
**S** 425.3 **Mg** 10.04 **Mn** 2 **Zn** 8.15 **Organic acids including Humic and Fulvic** 5.32

Highway 3 - 155.54 acre

2019	2018	2017	2016	2015
		Sugar Beet BTS 20RR28 (RR) 155.54 acre	<b>Potato</b> <b>Russet Burbank</b> <b>155.54 acre</b>	

No approved prescriptions for Highway 3 for 2016

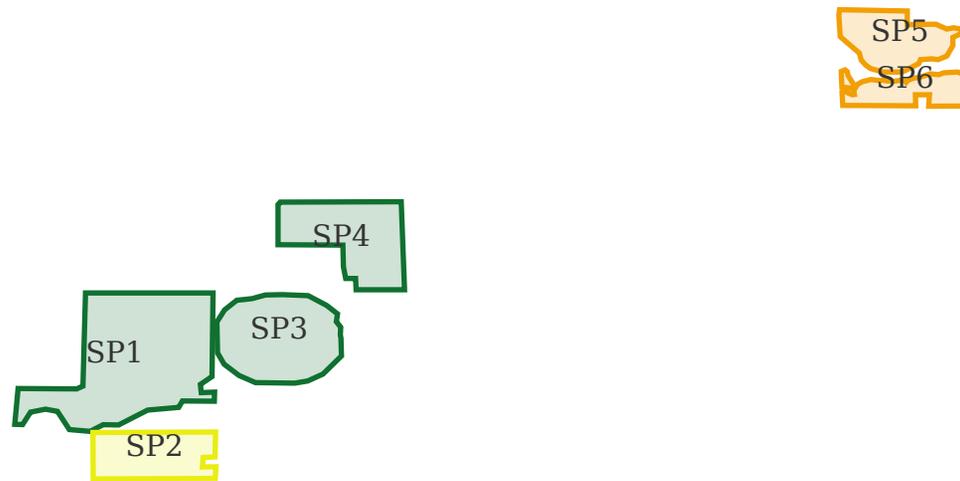
SITUATION/ TIMING	INPUTS	RATE	TOTAL	COST/ ACRE	COST
<b>Potato Spring Fertilizer</b> Apr 14, 2016 Fertilizer Application	Valley 21-0-0-24s	380 lbs/acre	59,105.2 lbs	\$57.46	\$8,936.71
	Variable Rate Ground - spreading 1	1 acre/acre	155.54 acre	\$10.00	\$1,555.40
	Field Nutrition (lbs/acre): <b>N</b> 79.8 <b>S</b> 91.2				
			<b>Total</b>	<b>\$67.46</b>	<b>\$10,492.11</b>
<b>Potato Seed Cutting</b> Apr 15, 2016	Seed - Treatment	1 acre/acre	155.54 acre	\$1.00	\$155.54
	Advise Four Flowable Insecticide	4 floz/100lb of seed	0 gal	\$0.00	\$0.00
	Power-Line Potato Seed Treat Mancozeb 6% Plus Bark	0.75 lbs/100lb of seed	0 lbs	\$0.00	\$0.00
			<b>Total</b>	<b>\$1.00</b>	<b>\$155.54</b>
<b>Potato Planting</b> May 31, 2016	Planting	1 acre/acre	155.54 acre	\$25.00	\$3,888.50
	Russet Burbank	28 lbs/acre	4,355.12 lbs	\$2.52	\$391.96
	Valley Agronomics 11-37-0	13 gal/acre	2,022.02 gal	\$53.37	\$8,300.80
	Actagro Liquid Humus 0-0-4	2 qt/acre	77.77 gal	\$7.50	\$1,166.55
	Winfield Liquid Zinc 7%	1 pt/acre	19.44 gal	\$0.75	\$116.65
	Moncut 70-DF	0.75 lbs/acre	116.65 lbs	\$27.00	\$4,199.58
Field Nutrition (lbs/acre): <b>N</b> 17.16 <b>Phosphate</b> 57.72 <b>K2O</b> 0.2 <b>S</b> 0.04 <b>Zn</b> 0.09					
			<b>Total</b>	<b>\$116.14</b>	<b>\$18,064.04</b>
<b>Potato Herbicide</b> Jun 30, 2016 Self Propelled Boomspray	Prowl H2O Herbicide	1.5 pt/acre	29.16 gal	\$9.00	\$1,399.86
	Boundary 6.5 EC Herbicide	2 pt/acre	38.88 gal	\$22.50	\$3,499.65
	Dimetric DF 75%	0.33 lbs/acre	51.33 lbs	\$4.29	\$667.27
Boomspray application	1 acre/acre	155.54 acre	\$8.00	\$1,244.32	
			<b>Total</b>	<b>\$43.79</b>	<b>\$6,811.10</b>
<b>White Mold/ Early Blight</b> Jul 31, 2016 Boomspray	Endura Fungicide	6 oz/acre	58.33 lbs	\$33.60	\$5,226.14
	UPI Manzate Pro Stick	1 lbs/acre	155.54 lbs	\$5.70	\$886.58
	Boomspray application	1 acre/acre	155.54 acre	\$8.00	\$1,244.32
			<b>Total</b>	<b>\$47.30</b>	<b>\$7,357.04</b>
<b>White Mold/ Early Blight Application</b> Aug 31, 2016 Self Propelled Boomspray	Luna Tranquility	11 floz/acre	13.37 gal	\$34.38	\$5,346.69
	Boomspray application	1 acre/acre	155.54 acre	\$8.00	\$1,244.32
				<b>Total</b>	<b>\$42.38</b>
<b>Potatoes-Fungicide-Insecticide-Zing!, Abba Ultra, Masterlock</b> Sep 15, 2016 Aerial Spraying	Zing!	1 qt/acre	38.88 gal	\$17.50	\$2,721.95
	ABBA Ultra	8 floz/acre	9.72 gal	\$6.56	\$1,020.73
	Masterlock	6 floz/acre	7.29 gal	\$1.17	\$182.27
	Spray/aerial	1 acre/acre	155.54 acre	\$10.00	\$1,555.40
			<b>Total</b>	<b>\$35.23</b>	<b>\$5,480.35</b>

SITUATION/ TIMING	INPUTS	RATE	TOTAL	COST/ ACRE	COST
<b>Potatoes- Desiccant- Reglone, Parazone, Aduro</b> Sep 30, 2016 Self Propelled Boomspray	Water Rate	20 gal/acre	3,110.8 gal		
	Reglone Desiccant	2 pt/acre	38.88 gal	\$23.25	\$3,616.31
	Parazone 3SL	1 pt/acre	19.44 gal	\$3.75	\$583.27
	Aduro	2 pt/100gal	7.78 gal	\$1.10	\$171.09
	Boomspray application	1 acre/acre	155.54 acre	\$8.00	\$1,244.32
			<b>Total</b>	<b>\$36.10</b>	<b>\$5,614.99</b>
<b>Potato Irrigation/ Fertigation</b> Oct 15, 2016 Fertigation	Irrigation	1 acre/acre	155.54 acre	\$15.00	\$2,333.10
	Valley Agronomics 32-0-0	55 gal/acre	8,554.7 gal	\$137.66	\$21,411.37
	Thio-Sul (12-0-0-26S)	18.15 gal/acre	2,823.05 gal	\$40.82	\$6,348.65
	Actagro Structure 7-21-0	7 gal/acre	1,088.78 gal	\$56.00	\$8,710.24
	Field Nutrition (lbs/acre): N 224.15 Phosphate 16.03 S 52.38 Zn 0.14 Organic acids including Humic and Fulvic 5.32				
			<b>Total</b>	<b>\$249.48</b>	<b>\$38,803.36</b>
<b>Stubble Digest Sulfuric Acid</b> Oct 15, 2016 Boomspray	Sulfuric Acid	30 gal/acre	4,666.2 gal	\$27.00	\$4,199.58
	Boomspray - contract	1 acre/acre	155.54 acre	\$12.00	\$1,866.48
	Field Nutrition (lbs/acre): S 143.22				
			<b>Total</b>	<b>\$39.00</b>	<b>\$6,066.06</b>
<b>Potato Harvest</b> Nov 30, 2016	Harvest	1 acre/acre	155.54 acre	\$50.00	\$7,777.00
				<b>Total</b>	<b>\$50.00</b>
<b>Potato Prep Fumigation</b> Dec 20, 2016 Soil Shank Injection	Vapam HL Soil Fumigant	40 gal/acre	6,221.6 gal	\$240.00	\$37,329.60
	Deep Ripping	1 acre/acre	155.54 acre	\$40.00	\$6,221.60
				<b>Total</b>	<b>\$280.00</b>
<b>Potato Fall Fertilizer</b> Dec 20, 2016 Fertilizer Application	Valley 12-45-0-5-1Z	302 lbs/acre	46,973.08 lbs	\$82.26	\$12,795.47
	Valley 0-0-60	150 lbs/acre	23,331 lbs	\$25.92	\$4,031.60
	K-Mag	93 lbs/acre	14,465.22 lbs	\$25.44	\$3,957.68
	Elemental Sulphur 85%	117 lbs/acre	18,198.18 lbs	\$27.38	\$4,258.37
	Power Zinc 35 Granular	14 lbs/acre	2,177.56 lbs	\$7.93	\$1,233.37
	Agfinity Manganese Sulfate 32%	6.25 lbs/acre	972.13 lbs	\$4.61	\$717.43
	Variable Rate Ground - spreading 1	1 acre/acre	155.54 acre	\$14.00	\$2,177.56
	Field Nutrition (lbs/acre): N 36.24 Phosphate 135.9 Potash 110.46 S 138.45 Mg 10.04 Mn 2 Zn 7.92				
			<b>Total</b>	<b>\$187.55</b>	<b>\$29,171.48</b>
			<b>Chem Total</b>	<b>\$429.80</b>	<b>\$66,850.99</b>
			<b>Fert Total</b>	<b>\$554.10</b>	<b>\$86,184.46</b>
			<b>Plan Total</b>	<b>\$1,195.42</b>	<b>\$185,935.28</b>

Potato	TOTAL COST			LOW		MED		HIGH	
155.54 acre	\$185,935.28			\$140.00 /ton		\$160.00 /ton		\$180.00 /ton	
	ton/acre	ton	BE \$/ton	\$	\$/acre	\$	\$/acre	\$	\$/acre
LOW	20	3,110.8	60	249,577	1,605	311,793	2,005	374,009	2,405
MED	25	3,888.5	48	358,455	2,305	436,225	2,805	513,995	3,305
HIGH	30	4,666.2	40	467,333	3,005	560,657	3,605	653,981	4,205

# Springfield Aerial Overview

Alfalfa  Sugar Beet  Wheat - winter 



## Farm Planning Summary - Springfield

FIELD	2019	2018	2017	2016	2015
Springfield 1 (Map: SP1)			Wheat - winter (For Grain) Brundage 96 236.94 acre	Sugar Beet BTS 20RR28 (RR) 236.94 acre	
Springfield 2 (Map: SP2)			Potato Russet Burbank 75 acre	Wheat - winter (For Grain) Brundage 96 75 acre	
Springfield 3 (Map: SP3)			Wheat - winter (For Grain) Brundage 96 126.54 acre	Sugar Beet BTS 20RR28 (RR) 126.54 acre	
Springfield 4 (Map: SP4)			Wheat - winter (For Grain) Brundage 96 107.19 acre	Sugar Beet BTS 20RR28 (RR) 107.19 acre	
Springfield 5 (Map: SP5)	Corn (Silage) Croplan 4199 SS/ RIB (GENSS) 69.79 acre	Alfalfa LegenDairy 5.0 69.79 acre	Alfalfa LegenDairy 5.0 69.79 acre	Alfalfa LegenDairy XHD 69.79 acre	
Springfield 6 (Map: SP6)			Alfalfa LegenDairy 5.0 45.81 acre	Alfalfa LegenDairy XHD 45.81 acre	

Field Nutrition (lbs/acre): N 79.63

Springfield 1 - 236.94 acre

2019	2018	2017	2016	2015
		Wheat - winter (For Grain) Brundage 96 236.94 acre	<b>Sugar Beet BTS 20RR28 (RR) 236.94 acre</b>	

No approved prescriptions for Springfield 1 for 2016

SITUATION/ TIMING	INPUTS	RATE	TOTAL	COST/ ACRE	COST
<b>Planting</b> May 31, 2016	Planting	1 acre/acre	236.94 acre	\$25.00	\$5,923.50
	BTS 20RR28	140 lbs/acre	33,171.6 lbs	\$70.00	\$16,585.80
			<b>Total</b>	<b>\$95.00</b>	<b>\$22,509.30</b>
<b>Sugar Beet Fertilizer</b> May 31, 2016	Valley Agronomics 32-0-0	22.5 gal/acre	5,331.15 gal	\$56.31	\$13,343.22
	Field Nutrition (lbs/acre): N 79.63				
			<b>Total</b>	<b>\$56.31</b>	<b>\$13,343.22</b>
<b>Sugar Beets-Herbicide/Insecticide-Round Up Power Max, Stallion, Class Act, Interlock</b> May 31, 2016	Roundup PowerMAX Herbicide	24 floz/acre	44.43 gal	\$4.87	\$1,155.08
	Stallion EC Insecticide	8.5 floz/acre	15.73 gal	\$6.64	\$1,573.43
	Class Act NG	2.5 gal/100gal	0 gal	\$0.00	\$0.00
	InterLock	4 floz/acre	7.4 gal	\$2.06	\$488.69
	Boomspray application	1 acre/acre	236.94 acre	\$8.00	\$1,895.52
			<b>Total</b>	<b>\$21.58</b>	<b>\$5,112.72</b>
<b>Sugar Beets-Herbicide/Insecticide-Round-Up PM, Class Act NG, Clorpyrifos 4E, Interlock</b> Jun 30, 2016	Water Rate	10 gal/acre	2,369.4 gal		
	Roundup PowerMAX Herbicide	32 floz/acre	59.24 gal	\$6.50	\$1,540.11
	Class Act NG	16 floz/acre	29.62 gal	\$1.75	\$414.65
	Arysta Chlorpyrifos 4E AG	1.5 pt/acre	44.43 gal	\$11.44	\$2,710.00
	InterLock	4 floz/acre	7.4 gal	\$2.06	\$488.69
	Boomspray application	1 acre/acre	236.94 acre	\$8.00	\$1,895.52
			<b>Total</b>	<b>\$29.75</b>	<b>\$7,048.97</b>
<b>Sugar Beets-Fungicide-Topaz, Micronized Sulfur, Masterlock</b> Sep 30, 2016	Topaz	4 floz/acre	7.4 gal	\$2.66	\$629.37
	UPI Microthiol Disperss	2 lbs/acre	473.88 lbs	\$7.46	\$1,767.57
	Masterlock	6 floz/acre	11.11 gal	\$1.27	\$299.88
	Spray/aerial	1 acre/acre	236.94 acre	\$10.00	\$2,369.40
			<b>Total</b>	<b>\$21.38</b>	<b>\$5,066.22</b>
<b>Irrigation</b> Oct 15, 2016	Irrigation	1 acre/acre	236.94 acre	\$15.00	\$3,554.10
			<b>Total</b>	<b>\$15.00</b>	<b>\$3,554.10</b>
<b>Sugar Beet Harvest</b> Nov 15, 2016	Harvest	1 acre/acre	236.94 acre	\$50.00	\$11,847.00
			<b>Total</b>	<b>\$50.00</b>	<b>\$11,847.00</b>
			<b>Chem Total</b>	<b>\$46.71</b>	<b>\$11,067.47</b>
			<b>Fert Total</b>	<b>\$56.31</b>	<b>\$13,343.22</b>
			<b>Plan Total</b>	<b>\$289.02</b>	<b>\$68,481.53</b>

Sugar Beet	TOTAL COST			LOW		MED		HIGH	
236.94 acre	\$68,481.53			\$40.00 /ton		\$45.00 /ton		\$50.00 /ton	
	ton/acre	ton	BE \$/ton	\$	\$/acre	\$	\$/acre	\$	\$/acre
LOW	38	9,003.72	7	291,667	1,231	336,686	1,421	381,704	1,611
MED	43	10,188.42	6	339,055	1,431	389,997	1,646	440,939	1,861
HIGH	48	11,373.12	6	386,443	1,631	443,309	1,871	500,174	2,111

Field Nutrition (lbs/acre): **N** 110.95 **Phosphate** 50.44 **K2O** 50.4

Springfield 2 - 75 acre

2019	2018	2017	2016	2015
		Potato Russet Burbank 75 acre	<b>Wheat - winter (For Grain) Brundage 96 75 acre</b>	

No approved prescriptions for Springfield 2 for 2016

SITUATION/ TIMING	INPUTS	RATE	TOTAL	COST/ ACRE	COST
<b>Spring Fertilizer</b> Mar 31, 2016 Spreader	Andersons 46-0-0 Muriate of Potash 0-0-60 Agrium 11-52-0 MAP Spreading fertilizer	218 lbs/acre 84 lbs/acre 97 lbs/acre 1 acre/acre	16,350 lbs 6,300 lbs 7,275 lbs 75 acre	\$39.24 \$16.80 \$19.40 \$10.00	\$2,943.00 \$1,260.00 \$1,455.00 \$750.00
Field Nutrition (lbs/acre): <b>N</b> 110.95 <b>Phosphate</b> 50.44 <b>K2O</b> 50.4					
<b>Total</b>				<b>\$85.44</b>	<b>\$6,408.00</b>
<b>Herbicide Application</b> Apr 30, 2016 Self Propelled Boomspray	Water Rate Huskie Herbicide Class Act NG DuPont Aproach Fungicide Spray/herbicide	15 gal/acre 15 floz/acre 16 floz/acre 4 floz/acre 1 acre/acre	1,125 gal 8.79 gal 9.38 gal 2.34 gal 75 acre	\$9.38 \$2.50 \$5.00 \$10.00	\$703.13 \$187.50 \$375.00 \$750.00
<b>Total</b>				<b>\$26.88</b>	<b>\$2,015.63</b>
<b>Ethephon</b> May 31, 2016 Aerial Spraying	Water Rate MANA Ethephon 2SL Spray/aerial Topaz	5 gal/acre 1.5 pt/acre 1 acre/acre 4 floz/acre	375 gal 14.06 gal 75 acre 2.34 gal	\$15.00 \$8.00 \$1.87	\$1,125.00 \$600.00 \$140.63
<b>Total</b>				<b>\$24.87</b>	<b>\$1,865.63</b>
<b>Irrigation</b> Jul 31, 2016	Irrigation	1 acre/acre	75 acre	\$10.00	\$750.00
<b>Total</b>				<b>\$10.00</b>	<b>\$750.00</b>
<b>Harvest</b> Sep 30, 2016	Harvest	1 acre/acre	75 acre	\$4.50	\$337.50
<b>Total</b>				<b>\$4.50</b>	<b>\$337.50</b>
<b>Planting</b> Nov 30, 2016	Planting Brundage 96	1 acre/acre 120 lbs/acre	75 acre 9,000 lbs	\$4.00 \$9.96	\$300.00 \$747.00
<b>Total</b>				<b>\$13.96</b>	<b>\$1,047.00</b>
<b>Chem Total</b>				<b>\$33.75</b>	<b>\$2,531.25</b>
<b>Fert Total</b>				<b>\$75.44</b>	<b>\$5,658.00</b>
<b>Plan Total</b>				<b>\$165.65</b>	<b>\$12,423.75</b>

Wheat - winter (For Grain)	TOTAL COST			LOW		MED		HIGH	
	75 acre	bu	BE \$/bu	\$	\$/acre	\$	\$/acre	\$	\$/acre
	75 acre		\$12,423.75	\$3.50 /bu		\$4.00 /bu		\$4.50 /bu	
LOW	100	7,500	1	13,826	184	17,576	234	21,326	284
MED	130	9,750	1	21,701	289	26,576	354	31,451	419
HIGH	150	11,250	1	26,951	359	32,576	434	38,201	509

Field Nutrition (lbs/acre): N 79.63

Springfield 3 - 126.54 acre

2019	2018	2017	2016	2015
		Wheat - winter (For Grain) Brundage 96 126.54 acre	<b>Sugar Beet BTS 20RR28 (RR) 126.54 acre</b>	

No approved prescriptions for Springfield 3 for 2016

SITUATION/ TIMING	INPUTS	RATE	TOTAL	COST/ ACRE	COST
<b>Sugar Beets- Herbicide/ Insecticide- Round Up Power Max, Stallion, Class Act, Interlock</b> May 31, 2016 Boomspray	Roundup PowerMAX Herbicide	24 floz/acre	23.73 gal	\$4.88	\$616.88
	Stallion EC Insecticide	8.5 floz/acre	8.4 gal	\$6.64	\$840.30
	Class Act NG	2.5 gal/100gal	0 gal	\$0.00	\$0.00
	InterLock	4 floz/acre	3.95 gal	\$2.06	\$260.99
	Boomspray application	1 acre/acre	126.54 acre	\$8.00	\$1,012.32
			<b>Total</b>	<b>\$21.58</b>	<b>\$2,730.50</b>
<b>Planting</b> May 31, 2016	Planting	1 acre/acre	126.54 acre	\$25.00	\$3,163.50
	BTS 20RR28	140 lbs/acre	17,715.6 lbs	\$70.00	\$8,857.80
			<b>Total</b>	<b>\$95.00</b>	<b>\$12,021.30</b>
<b>Sugar Beet Fertilizer</b> May 31, 2016	Valley Agronomics 32-0-0	22.5 gal/acre	2,847.15 gal	\$56.31	\$7,126.07
	Field Nutrition (lbs/acre): N 79.63				
			<b>Total</b>	<b>\$56.31</b>	<b>\$7,126.07</b>
<b>Sugar Beets- Herbicide/ Insecticide- Round-Up PM, Class Act NG, Clorpyrifos 4E, Interlock</b> Jun 30, 2016 Broadcast	Water Rate	10 gal/acre	1,265.4 gal		
	Roundup PowerMAX Herbicide	32 floz/acre	31.64 gal	\$6.50	\$822.51
	Class Act NG	16 floz/acre	15.82 gal	\$1.75	\$221.45
	Arysta Chlorpyrifos 4E AG	1.5 pt/acre	23.73 gal	\$11.44	\$1,447.30
	InterLock	4 floz/acre	3.95 gal	\$2.06	\$260.99
Boomspray application	1 acre/acre	126.54 acre	\$8.00	\$1,012.32	
			<b>Total</b>	<b>\$29.75</b>	<b>\$3,764.57</b>
<b>Sugar Beets- Fungicide- Topaz, Micronized Sulfur, Masterlock</b> Sep 30, 2016 Aerial Spraying	Topaz	4 floz/acre	3.95 gal	\$2.66	\$336.12
	UPI Microthiol Disperss	2 lbs/acre	253.08 lbs	\$7.46	\$943.99
	Masterlock	6 floz/acre	5.93 gal	\$1.27	\$160.15
	Spray/aerial	1 acre/acre	126.54 acre	\$10.00	\$1,265.40
			<b>Total</b>	<b>\$21.38</b>	<b>\$2,705.66</b>
<b>Irrigation</b> Oct 15, 2016	Irrigation	1 acre/acre	126.54 acre	\$15.00	\$1,898.10
			<b>Total</b>	<b>\$15.00</b>	<b>\$1,898.10</b>
<b>Sugar Beet Harvest</b> Nov 15, 2016	Harvest	1 acre/acre	126.54 acre	\$50.00	\$6,327.00
			<b>Total</b>	<b>\$50.00</b>	<b>\$6,327.00</b>
			<b>Chem Total</b>	<b>\$46.71</b>	<b>\$5,910.68</b>
			<b>Fert Total</b>	<b>\$56.31</b>	<b>\$7,126.07</b>
			<b>Plan Total</b>	<b>\$289.02</b>	<b>\$36,573.19</b>

Sugar Beet	TOTAL COST			LOW		MED		HIGH	
126.54 acre	\$36,573.19			\$40.00 /ton		\$45.00 /ton		\$50.00 /ton	
	ton/acre	ton	BE \$/ton	\$	\$/acre	\$	\$/acre	\$	\$/acre
LOW	38	4,808.52	7	155,768	1,231	179,810	1,421	203,853	1,611
MED	43	5,441.22	6	181,076	1,431	208,282	1,646	235,488	1,861
HIGH	48	6,073.92	6	206,384	1,631	236,753	1,871	267,123	2,111

## Springfield 4 - 107.19 acre

2019	2018	2017	2016	2015
		Wheat - winter (For Grain) Brundage 96 107.19 acre	<b>Sugar Beet BTS 20RR28 (RR) 107.19 acre</b>	

No approved prescriptions for Springfield 4 for 2016

SITUATION/ TIMING	INPUTS	RATE	TOTAL	COST/ ACRE	COST
<b>Sugar Beets- Herbicide/ Insecticide- Round Up Power Max, Stallion, Class Act, Interlock</b> May 31, 2016 Boomspray	Roundup PowerMAX Herbicide	24 floz/acre	20.1 gal	\$4.88	\$522.55
	Stallion EC Insecticide	8.5 floz/acre	7.12 gal	\$6.64	\$711.81
	Class Act NG	2.5 gal/100gal	0 gal	\$0.00	\$0.00
	InterLock	4 floz/acre	3.35 gal	\$2.06	\$221.08
	Boomspray application	1 acre/acre	107.19 acre	\$8.00	\$857.52
			<b>Total</b>	<b>\$21.58</b>	<b>\$2,312.96</b>
<b>Planting</b> May 31, 2016	Planting	1 acre/acre	107.19 acre	\$25.00	\$2,679.75
	BTS 20RR28	140 lbs/acre	15,006.6 lbs	\$70.00	\$7,503.30
			<b>Total</b>	<b>\$95.00</b>	<b>\$10,183.05</b>
<b>Sugar Beets- Herbicide/ Insecticide- Round-Up PM, Class Act NG, Clorpyrifos 4E, Interlock</b> Jun 30, 2016 Broadcast	Water Rate	10 gal/acre	1,071.9 gal		
	Roundup PowerMAX Herbicide	32 floz/acre	26.8 gal	\$6.50	\$696.73
	Class Act NG	16 floz/acre	13.4 gal	\$1.75	\$187.58
	Arysta Chlorpyrifos 4E AG	1.5 pt/acre	20.1 gal	\$11.44	\$1,225.99
	InterLock	4 floz/acre	3.35 gal	\$2.06	\$221.08
Boomspray application	1 acre/acre	107.19 acre	\$8.00	\$857.52	
			<b>Total</b>	<b>\$29.75</b>	<b>\$3,188.90</b>
<b>Sugar Beets- Fungicide- Topaz, Micronized Sulfur, Masterlock</b> Sep 30, 2016 Aerial Spraying	Topaz	4 floz/acre	3.35 gal	\$2.66	\$284.72
	UPI Microthiol Disperss	2 lbs/acre	214.38 lbs	\$7.46	\$799.64
	Masterlock	6 floz/acre	5.02 gal	\$1.27	\$135.66
	Spray/aerial	1 acre/acre	107.19 acre	\$10.00	\$1,071.90
			<b>Total</b>	<b>\$21.38</b>	<b>\$2,291.92</b>
<b>Sugar Beet Harvest</b> Nov 15, 2016	Harvest	1 acre/acre	107.19 acre	\$50.00	\$5,359.50
			<b>Total</b>	<b>\$50.00</b>	<b>\$5,359.50</b>
			<b>Chem Total</b>	<b>\$46.71</b>	<b>\$5,006.84</b>
			<b>Fert Total</b>	<b>\$0.00</b>	<b>\$0.00</b>
			<b>Plan Total</b>	<b>\$217.71</b>	<b>\$23,336.33</b>

Sugar Beet 107.19 acre	TOTAL COST			LOW		MED		HIGH	
	ton/acre	ton	BE \$/ton	\$	\$/acre	\$	\$/acre	\$	\$/acre
		\$23,336.33		\$40.00 /ton		\$45.00 /ton		\$50.00 /ton	
LOW	38	4,073.22	5	139,592	1,302	159,959	1,492	180,325	1,682
MED	43	4,609.17	5	161,030	1,502	184,076	1,717	207,122	1,932
HIGH	48	5,145.12	4	182,468	1,702	208,194	1,942	233,920	2,182

Field Nutrition (lbs/acre): N 8.6 Phosphate 4.58 K2O 0.1 Potash 2.74 Zn 0.04  
 Organic acids including Humic and Fulvic 1.52

Springfield 5 - 69.79 acre

2019	2018	2017	2016	2015
Corn (Silage)	Alfalfa	Alfalfa	<b>Alfalfa</b>	
Croplan 4199 SS/RIB (GENSS)	LegenDairy 5.0	LegenDairy 5.0	<b>LegenDairy XHD</b>	
69.79 acre	69.79 acre	69.79 acre	<b>69.79 acre</b>	

No approved prescriptions for Springfield 5 for 2016

SITUATION/ TIMING	INPUTS	RATE	TOTAL	COST/ ACRE	COST
<b>Alfalfa Foliar</b> Jul 20, 2016 Boomspray	Actagro Structure 7-21-0	2 gal/acre	139.58 gal	\$16.00	\$1,116.64
	Valley Agronomics 32-0-0	2 gal/acre	139.58 gal	\$5.01	\$349.35
	Actagro Katalyst 0-0-25	1 gal/acre	69.79 gal	\$15.00	\$1,046.85
	Actagro Liquid Humus 0-0-4	1 qt/acre	17.45 gal	\$37.54	\$2,619.74
	Boomspray application	1 acre/acre	69.79 acre	\$8.00	\$558.32
Field Nutrition (lbs/acre): N 8.6 Phosphate 4.58 K2O 0.1 Potash 2.74 Zn 0.04 Organic acids including Humic and Fulvic 1.52					
<b>Total</b>				<b>\$81.54</b>	<b>\$5,690.90</b>

<b>Alfalfa-Herbicide-Round-Up PM, Class Act, Interlock</b> Aug 31, 2016 Boomspray	Water Rate	10 gal/acre	697.9 gal		
	Roundup PowerMAX Herbicide	32 floz/acre	17.45 gal	\$6.50	\$453.64
	Class Act NG	5 gal/100gal	34.9 gal	\$7.00	\$488.53
	InterLock	4 floz/acre	2.18 gal	\$2.06	\$143.94
	Boomspray application	1 acre/acre	69.79 acre	\$8.00	\$558.32
<b>Total</b>				<b>\$23.56</b>	<b>\$1,644.43</b>
<b>Chem Total</b>				<b>\$15.56</b>	<b>\$1,086.11</b>
<b>Fert Total</b>				<b>\$73.54</b>	<b>\$5,132.58</b>
<b>Plan Total</b>				<b>\$105.11</b>	<b>\$7,335.33</b>

Alfalfa	TOTAL COST			LOW		MED		HIGH	
	69.79 acre	\$7,335.33		\$80.00 /ton		\$100.00 /ton		\$120.00 /ton	
	ton/acre	ton	BE \$/ton	\$	\$/acre	\$	\$/acre	\$	\$/acre
LOW	5	348.95	21	20,581	295	27,560	395	34,539	495
MED	6	418.74	17	26,164	375	34,539	495	42,913	615
HIGH	7	488.53	15	31,747	455	41,518	595	51,288	735

Field Nutrition (lbs/acre): **N** 8.6 **Phosphate** 4.58 **K2O** 0.1 **Potash** 2.74 **Zn** 0.04  
**Organic acids including Humic and Fulvic** 1.52

Springfield 6 - 45.81 acre

2019	2018	2017	2016	2015
		Alfalfa LegenDairy 5.0 45.81 acre	<b>Alfalfa</b> <b>LegenDairy XHD</b> <b>45.81 acre</b>	

No approved prescriptions for Springfield 6 for 2016

SITUATION/ TIMING	INPUTS	RATE	TOTAL	COST/ ACRE	COST
<b>Alfalfa Foliar</b> Jul 20, 2016 Boomspray	Actagro Structure 7-21-0	2 gal/acre	91.62 gal	\$16.00	\$732.96
	Valley Agronomics 32-0-0	2 gal/acre	91.62 gal	\$5.01	\$229.31
	Actagro Katalyst 0-0-25	1 gal/acre	45.81 gal	\$15.00	\$687.15
	Actagro Liquid Humus 0-0-4	1 qt/acre	11.45 gal	\$37.54	\$1,719.59
	Boomspray application	1 acre/acre	45.81 acre	\$8.00	\$366.48
Field Nutrition (lbs/acre): <b>N</b> 8.6 <b>Phosphate</b> 4.58 <b>K2O</b> 0.1 <b>Potash</b> 2.74 <b>Zn</b> 0.04 <b>Organic acids including Humic and Fulvic</b> 1.52					

				<b>Total</b>	<b>\$81.54</b>	<b>\$3,735.50</b>
<b>Alfalfa-Herbicide-Round-Up PM, Class Act, Interlock</b> Aug 31, 2016 Boomspray	Water Rate	10 gal/acre	458.1 gal			
	Roundup PowerMAX Herbicide	32 floz/acre	11.45 gal	\$6.50	\$297.77	
	Class Act NG	5 gal/100gal	22.91 gal	\$7.00	\$320.67	
	InterLock	4 floz/acre	1.43 gal	\$2.06	\$94.48	
	Boomspray application	1 acre/acre	45.81 acre	\$8.00	\$366.48	
				<b>Total</b>	<b>\$23.56</b>	<b>\$1,079.40</b>
				<b>Chem Total</b>	<b>\$15.56</b>	<b>\$712.92</b>
				<b>Fert Total</b>	<b>\$73.54</b>	<b>\$3,369.02</b>
				<b>Plan Total</b>	<b>\$105.11</b>	<b>\$4,814.89</b>

Alfalfa	TOTAL COST			LOW		MED		HIGH	
	45.81 acre	\$4,814.89		\$80.00 /ton		\$100.00 /ton		\$120.00 /ton	
	ton/acre	ton	BE \$/ton	\$	\$/acre	\$	\$/acre	\$	\$/acre
LOW	5	229.05	21	13,509	295	18,090	395	22,671	495
MED	6	274.86	17	17,174	375	22,671	495	28,168	615
HIGH	7	320.67	15	20,839	455	27,252	595	33,666	735