Farm Name - W-23 (283.7 ac.) Constant vs Optimize RX-F/S



#### **Abstract**

- This field consists of 6 fertility management zones representing 283.7 ac.
- The average yield for this field was: 46.0 bu/ac
- The yield goal of the field was: 45.0 bu/ac
- Through Decisive Farming's Optimize RX-F/S, the field has seen an increase of: \$20.59/ac (Total of \$5842.12)
- By using Optimize RX-F/S, fertilizer savings were made in zones: 1, 2, 3
- The most benefit was seen in zones: 1, 2, 3, and 4

#### **Agronomic Summary**

- The average yield using Optimize RX-F/S was: 46.0 bu/ac (Exceeded Yield Goal by: 1.0 bu/ac)
- The average yield using constant rate was: 42.4 bu/ac (Did not exceed yield goal of 45.0 bu/ac)
- The average yield using Optimize RX-F/S exceeded constant rate by: 3.6 bu/ac
- Yield for zone # RX-1 was: 31.6 bu/ac (Exceeding constant rate of: 30.7 bu/ac and Yield Goal of: 30.0bu/ac)
- Yield for zone # RX-2 was: 32.9 bu/ac (Exceeding constant rate of: 30.0 bu/ac but not Yield Goal of: 37.0 bu/ac)
- Yield for zone # RX-4 was: 45.1 bu/ac (Exceeding constant rate of: 38.2 bu/ac and Yield Goal of: 45.0bu/ac)
- Yield for zone # RX-5 was: 53.1 bu/ac (Exceeding constant rate of: 53.0 bu/ac and Yield Goal of: 48.0bu/ac)
- Yield for zone # RX-6 was: 57.7 bu/ac (Exceeding Yield Goal of: 52.0 bu/ac but not constant rate of: 59.1bu/ac)

#### **Economic Summary**

- The total net return for the field is: \$5842.12 (\$20.59/ac)
- The market price for Wheat used in the analysis was \$6.50/bu
- The Cost of Optimize RX-F/S was \$5.70/ac based on a 4 year average with Decisive Farming
- The input costs of fertilizer and seed were: Blend = \$650/MT and Wheat Seed = \$10/bu
- Return on Investment for zone # 1 was : \$33.57/ac (\$27.71/ac from fertilizer savings)
- Return on Investment for zone # 2 was : \$32.83/ac (\$13.88/ac from fertilizer savings)
- Return on Investment for zone # 3 was : \$57.01/ac (\$3.45/ac from fertilizer savings)
- Return on Investment for zone # 4 was : \$42.60/ac

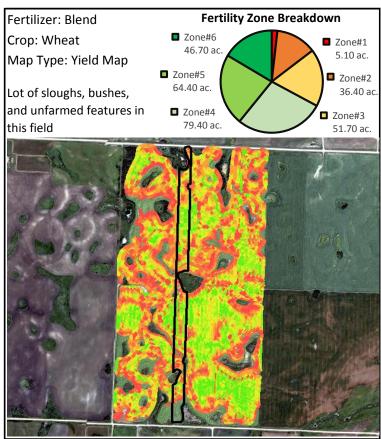
#### **Field Observations**

- The constant rate strip in this field would have difficulties representing the field as a whole due to the large number of sloughs, bushes, and other unfarmable features throughout.

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Farm Name - W-23 (283.7 ac.)
Constant vs Optimize RX-F/S

Decisive M



	Agronomics Summary (rate/ac)											
Zone	N	Blend	end Seed Yield Goal Const Yield F									
Const.	0	200	110	45	42.4	46.0						
RX-1	0	98	90	30	30.7	31.6						
RX-2	0	137	104	37	30.0	32.9						
RX-3	0	165	117	42	30.4	38.6						
RX-4	0	177	130	45	38.2	45.1						
RX-5	0	204	143	48	53.0	53.1						
RX-6	0	204	156	52	59.1	57.7						

**Economics Summary (\$/ac)** 

(	Crop Price:	\$6.50	Optimize Cost: \$5.70					
Zone	Revenue	Costs	<b>Const Net</b>	RX Net	R.O.I			
Const.	\$275.53	\$77.31	\$198.22	\$218.81	-			
RX-1	\$205.59	\$49.60	\$122.42	\$155.99	\$33.57			
RX-2	\$213.83	\$63.43	\$117.57	\$150.40	\$32.83			
RX-3	\$250.87	\$73.86	\$120.00	\$177.01	\$57.01			
RX-4	\$293.24	\$79.57	\$171.07	\$213.67	\$42.60			
RX-5	\$345.12	\$89.69	\$267.09	\$255.43	-\$11.66			
RX-6	\$375.37	\$91.86	\$307.13	\$283.51	-\$23.62			
	Net R	eturn on	Field: \$	5842.12				

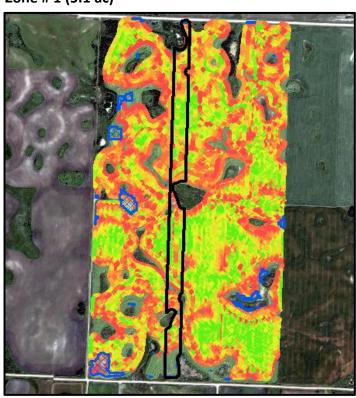
Net Return Per Acre: \$20.59

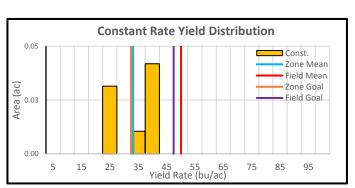
Constant Rate vs Optimize RX-F/S **R.O.I Comparison** \$57.01 \$33.57 \$32.83 \$42.60 -\$11.66 \$350.00 -\$23.62 \$300.00 \$250.00 \$200.00 \$150.00 \$100.00 \$50.00 \$0.00 Zone#1 Zone#2 Zone#3 Zone#4 Zone#5 Zone#6 Const. Net ■ RX Net ——ROI

Farm Name - W-23 (283.7 ac.) Constant vs Optimize RX-F/S

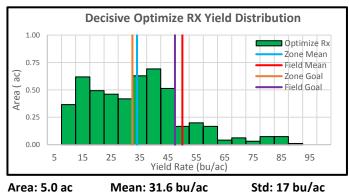


#### Zone # 1 (5.1 ac)





Mean: 30.7 bu/ac Area: 0.1 ac Std: 7.4 bu/ac

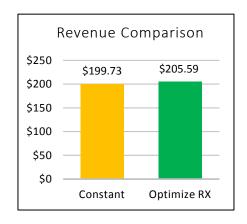


Mean: 31.6 bu/ac

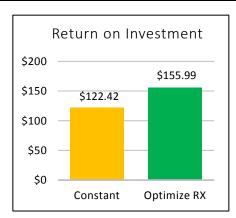
Std: 17 bu/ac

### **Zone #1 Agronomic and Economic Summary**

	N Rate (lb/ac)	N Cost (\$/ac)	Blend Rate (lb/ac)	Blend Cost (\$/ac)	Seed Rate (lb/ac)	Seed Cost (\$/ac)	Total Costs (\$/ac)	Yield (bu/ac)	Revenue (\$/ac)	NET (\$/ac)
Const.	0	\$0.00	200	\$58.98	110	\$18.33	\$77.31	30.73	\$199.73	\$122.42
RX-F	0	\$0.00	98	\$28.90	90	\$15.00	\$49.60	31.63	\$205.59	\$155.99
+/-	0	\$0.00	-102	-\$30.08	-20	-\$3.33	-\$27.71	0.90	\$5.86	\$33.57
	Total Net Return for Zone #1 @ 5.1 ac.								1.21	



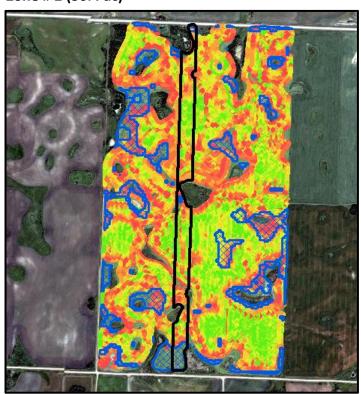


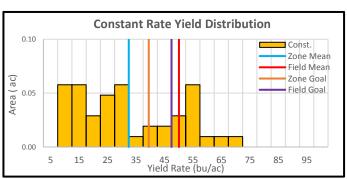


Farm Name - W-23 (283.7 ac.) Constant vs Optimize RX-F/S

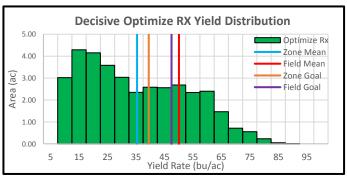


#### Zone # 2 (36.4 ac)





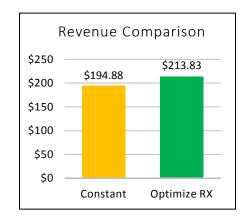
Area: 0.4 ac Mean: 30.0 bu/ac Std: 17.7 bu/ac

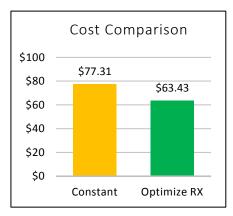


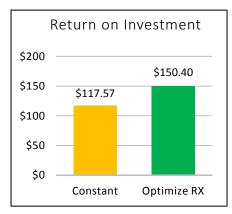
Area: 36.0 ac Mean: 32.9 bu/ac Std: 18.2 bu/ac

### Zone #2 Agronomic and Economic Summary

	N Rate (lb/ac)	N Cost (\$/ac)	Blend Rate (lb/ac)	Blend Cost (\$/ac)	Seed Rate (lb/ac)	Seed Cost (\$/ac)	Total Costs (\$/ac)	Yield (bu/ac)	Revenue (\$/ac)	NET (\$/ac)
Const.	0	\$0.00	200	\$58.98	110	\$18.33	\$77.31	29.98	\$194.88	\$117.57
RX-F	0	\$0.00	137	\$40.40	104	\$17.33	\$63.43	32.90	\$213.83	\$150.40
+/-	0	\$0.00	-63	-\$18.58	-6	-\$1.00	-\$13.88	2.92	\$18.95	\$32.83
	Total	Net Retu		\$1,1	95.01					



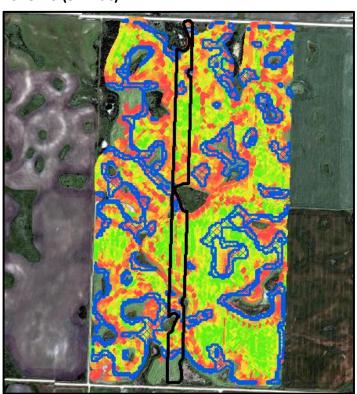


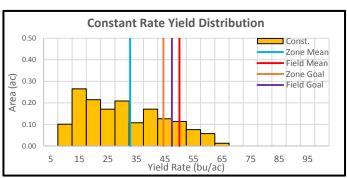


Farm Name - W-23 (283.7 ac.) Constant vs Optimize RX-F/S

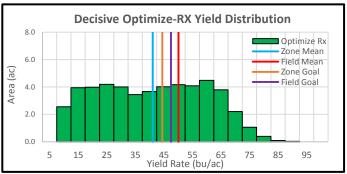


### Zone # 3 (51.7 ac)





Area: 1.6 ac Mean: 30.4 bu/ac Std: 14.2 bu/ac



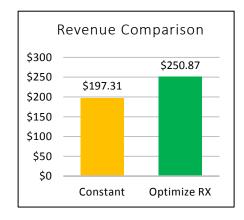
Area: 50.1 ac

Mean: 38.6 bu/ac

Std: 18.6 bu/ac

#### Zone #3 Agronomic and Economic Summary

	N Rate (lb/ac)	N Cost (\$/ac)	Blend Rate (lb/ac)	Blend Cost (\$/ac)	Seed Rate (lb/ac)	Seed Cost (\$/ac)	Total Costs (\$/ac)	Yield (bu/ac)	Revenue (\$/ac)	NET (\$/ac)
Const.	0	\$0.00	200	\$58.98	110	\$18.33	\$77.31	30.36	\$197.31	\$120.00
RX-F	0	\$0.00	165	\$48.66	117	\$19.50	\$73.86	38.59	\$250.87	\$177.01
+/-	0	\$0.00	-35	-\$10.32	7	\$1.17	-\$3.45	8.24	\$53.56	\$57.01
	Total Net Return for Zone #3 @ 51.7 ac.								47.42	



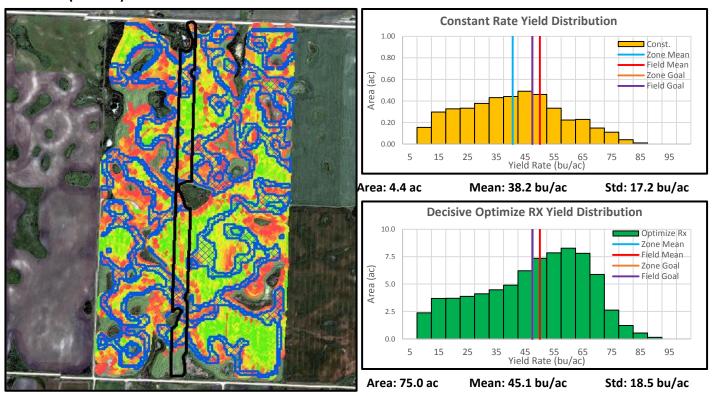




Farm Name - W-23 (283.7 ac.) Constant vs Optimize RX-F/S

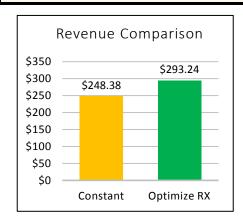


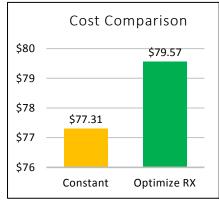
### Zone # 4 (79.4 ac)

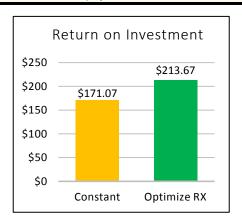


### **Zone #4 Agronomic and Economic Summary**

	N Rate (lb/ac)	N Cost (\$/ac)	Blend Rate (lb/ac)	Blend Cost (\$/ac)	Seed Rate (lb/ac)	Seed Cost (\$/ac)	Total Costs (\$/ac)	Yield (bu/ac)	Revenue (\$/ac)	NET (\$/ac)
Const.	0	\$0.00	200	\$58.98	110	\$18.33	\$77.31	38.21	\$248.38	\$171.07
RX-F	0	\$0.00	177	\$52.20	130	\$21.67	\$79.57	45.11	\$293.24	\$213.67
+/-	0	\$0.00	-23	-\$6.78	20	\$3.34	\$2.26	6.90	\$44.86	\$42.60
	Total Net Return for Zone #4 @ 79.4 ac.								82.44	



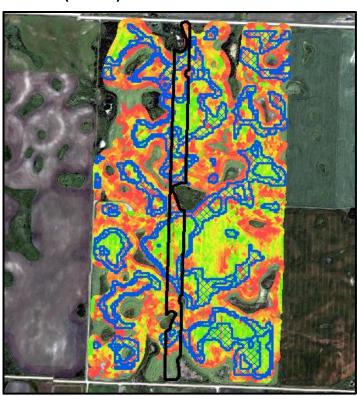


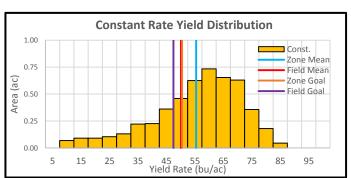


Farm Name - W-23 (283.7 ac.) Constant vs Optimize RX-F/S

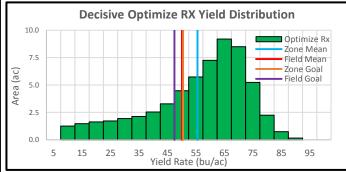


### Zone # 5 (64.4 ac)





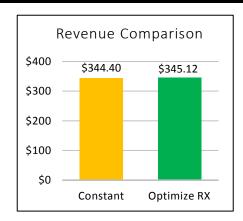
Area: 5.0 ac Mean: 53.0 bu/ac Std: 15.9 bu/ac



Area: 59.4 ac Mean: 53.1 bu/ac Std: 17.7 bu/ac

#### **Zone #5 Agronomic and Economic Summary**

	N Rate (lb/ac)	N Cost (\$/ac)	Blend Rate (lb/ac)	Blend Cost (\$/ac)	Seed Rate (lb/ac)	Seed Cost (\$/ac)	Total Costs (\$/ac)	Yield (bu/ac)	Revenue (\$/ac)	NET (\$/ac)
Const.	0	\$0.00	200	\$58.98	110	\$18.33	\$77.31	52.98	\$344.40	\$267.09
RX-F	0	\$0.00	204	\$60.16	143	\$23.83	\$89.69	53.10	\$345.12	\$255.43
+/-	0	\$0.00	4	\$1.18	33	\$5.50	\$12.38	0.11	\$0.72	-\$11.66
	Total	Net Retu		-\$75	0.90					



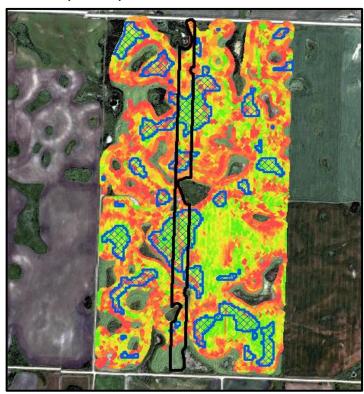


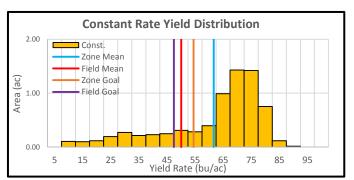


Farm Name - W-23 (283.7 ac.) Constant vs Optimize RX-F/S

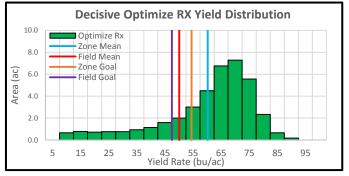


### Zone # 6 (46.7 ac)





Area: 7.2 ac Mean: 59.1 bu/ac Std: 17.8 bu/ac



Area: 39.5 ac Mean: 57.7 bu/ac Std: 16.8 bu/ac

### **Zone #6 Agronomic and Economic Summary**

	N Rate (lb/ac)	N Cost (\$/ac)	Blend Rate (lb/ac)	Blend Cost (\$/ac)	Seed Rate (Ib/ac)	Seed Cost (\$/ac)	Total Costs (\$/ac)	Yield (bu/ac)	Revenue (\$/ac)	NET (\$/ac)
Const.	0	\$0.00	200	\$58.98	110	\$18.33	\$77.31	59.14	\$384.44	\$307.13
RX-F	0	\$0.00	204	\$60.16	156	\$26.00	\$91.86	57.75	\$375.37	\$283.51
+/-	0	\$0.00	4	\$1.18	46	\$7.67	\$14.55	-1.40	-\$9.07	-\$23.62
	Total	Net Retu		-\$1,1	03.05					

