# Optimize RX Yield Analysis Report 

Farm Name - W-23 (283.7 ac.)

FARMING
Constant vs Optimize RX-F/S

Abstract<br>- This field consists of 6 fertility management zones representing 283.7 ac.<br>- The average yield for this field was: 46.0 bu/ac<br>- The yield goal of the field was: 45.0 bu/ac<br>- Through Decisive Farming's Optimize RX-F/S, the field has seen an increase of: \$20.59/ac (Total of \$5842.12)<br>- By using Optimize RX-F/S, fertilizer savings were made in zones: 1, 2, 3<br>- 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: $1.0 \mathrm{bu} / \mathrm{ac}$ )
- The average yield using constant rate was: 42.4 bu/ac (Did not exceed yield goal of $45.0 \mathrm{bu} / \mathrm{ac}$ )
- 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: $30.7 \mathrm{bu} / \mathrm{ac}$ 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 $\$ 6.50 / b u$
- 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.

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

|  | Agronomics Summary (rate/ac) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Zone | N | Blend | Seed | Yield Goal | Const Yield | RX Yield |
|  | 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 |
|  |  |  | E | nomic | mmary | /ac) |  |
|  |  | rop | Price: | 6.50 | Optim | ize Cost: | 5.70 |
|  | Zone | Rev | enue | Costs | Const Net | RX Net | R.O.I |
|  | Const. | \$27 | 5.53 | \$77.31 | \$198.22 | \$218.81 | - |
|  | RX-1 | \$20 | 5.59 | \$49.60 | \$122.42 | \$155.99 | \$33.57 |
|  | RX-2 | \$21 | 3.83 | \$63.43 | \$117.57 | \$150.40 | \$32.83 |
|  | $R X-3$ | \$25 | 0.87 | \$73.86 | \$120.00 | \$177.01 | \$57.01 |
|  | RX-4 | \$29 | 3.24 | \$79.57 | \$171.07 | \$213.67 | \$42.60 |
|  | RX-5 | \$34 | 5.12 | \$89.69 | \$267.09 | \$255.43 | -\$11.66 |
|  | RX-6 | \$37 | 5.37 | \$91.86 | \$307.13 | \$283.51 | -\$23.62 |
|  | Net Return on Field: \$5842.12 Net Return Per Acre: \$20.59 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |



Zone \# 1 (5.1 ac)



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


Area: 5.0 ac
Mean: 31.6 bu/ac
Std: 17 bu/ac

Zone \#1 Agronomic and Economic Summary

|  |  |  | $\begin{aligned} & \hline \text { Blend } \\ & \text { Rate } \\ & \text { (lb/ac) } \end{aligned}$ | $\begin{aligned} & \hline \text { Blend } \\ & \text { Cost } \\ & (\$ / a c) \\ & \hline \end{aligned}$ | $\begin{gathered} \hline \text { Seed } \\ \text { Rate } \\ \text { (lb/ac) } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Seed } \\ \text { Cost } \\ (\$ / a c) \end{gathered}$ | $\begin{aligned} & \hline \text { Total } \\ & \text { Costs } \\ & \text { (\$/ac) } \end{aligned}$ | $\begin{aligned} & \text { Yield } \\ & \text { (bu/ac) } \end{aligned}$ | Revenue (\$/ac) | $\begin{aligned} & \text { NET } \\ & (\$ / a c) \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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. |  |  |  |  |  |  | \$171.21 |  |  |  |



Optimize RX Yield Analysis Report

Zone \# 2 (36.4 ac)



Area: 0.4 ac Mean: $\mathbf{3 0 . 0}$ bu/ac
Std: 17.7 bu/ac


Area: $\mathbf{3 6 . 0}$ ac Mean: $\mathbf{3 2 . 9}$ bu/ac
Std: 18.2 bu/ac

Zone \#2 Agronomic and Economic Summary

|  |  | N <br> Cost <br> (\$/ac) <br> $\$ 0.00$ | $\begin{gathered} \hline \text { Blend } \\ \text { Rate } \\ \text { (lb/ac) } \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Blend } \\ \text { Cost } \\ \text { (\$/ac) } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Seed } \\ \text { Rate } \\ \text { (lb/ac) } \end{gathered}$ |  | $\begin{aligned} & \text { Total } \\ & \text { Costs } \\ & (\$ / \mathrm{ac}) \\ & \hline \end{aligned}$ | Yield <br> (bu/ac) | Revenue (\$/ac) | $\begin{aligned} & \text { NET } \\ & (\$ / a c) \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 Return for Zone \#2 @ 36.4 ac. |  |  |  |  |  |  | \$1,195.01 |  |  |  |





Zone \# 3 (51.7 ac)


Zone \#3 Agronomic and Economic Summary

|  |  | N Cost $(\$ / \mathrm{ac})$ | $\begin{aligned} & \text { Blend } \\ & \text { Rate } \\ & \text { (lb/ac) } \end{aligned}$ | $\begin{aligned} & \text { Blend } \\ & \text { Cost } \\ & (\$ / a c) \\ & \hline \end{aligned}$ | $\begin{gathered} \text { Seed } \\ \text { Rate } \\ \text { (lb/ac) } \end{gathered}$ | Seed Cost $(\$ / a c)$ | Total Costs (\$/ac) | $\begin{aligned} & \text { Yield } \\ & \text { (bu/ac) } \end{aligned}$ | Revenue (\$/ac) | $\begin{aligned} & \text { NET } \\ & (\$ / a c) \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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. |  |  |  |  |  |  | \$2,947.42 |  |  |  |





Zone \# 4 (79.4 ac)


Zone \#4 Agronomic and Economic Summary

|  | N Rate (lb/ac) | N Cost (\$/ac) | $\begin{aligned} & \hline \text { Blend } \\ & \text { Rate } \\ & (\mathrm{lb} / \mathrm{ac}) \end{aligned}$ | $\begin{gathered} \hline \text { Blend } \\ \text { Cost } \\ (\$ / \mathrm{ac}) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Seed } \\ \text { Rate } \\ \text { (lb/ac) } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Seed } \\ \text { Cost } \\ (\$ / \mathrm{ac}) \\ \hline \end{gathered}$ | Total Costs <br> (\$/ac) | Yield <br> (bu/ac) | Revenue (\$/ac) | $\begin{aligned} & \text { NET } \\ & (\$ / a c) \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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. |  |  |  |  |  |  | \$3,382.44 |  |  |  |






Zone \#5 Agronomic and Economic Summary

|  |  | N Cost (\$/ac) | $\begin{gathered} \hline \text { Blend } \\ \text { Rate } \\ \text { (lb/ac) } \end{gathered}$ | $\begin{aligned} & \hline \text { Blend } \\ & \text { Cost } \\ & (\$ / a c) \end{aligned}$ | $\begin{gathered} \hline \text { Seed } \\ \text { Rate } \\ \text { (lb/ac) } \end{gathered}$ | Seed Cost ( $\$ / \mathrm{ac})$ | $\begin{aligned} & \hline \text { Total } \\ & \text { Costs } \\ & \text { (\$/ac) } \\ & \hline \end{aligned}$ | Yield (bu/ac) | Revenue (\$/ac) | $\begin{aligned} & \text { NET } \\ & (\$ / a c) \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 Return for Zone \#5 @ 64.4 ac. |  |  |  |  |  |  | -\$750.90 |  |  |  |







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 $(\$ / \mathrm{ac})$ |  | Blend <br> Cost <br> $(\$ / a c)$ |  | $\begin{gathered} \hline \text { Seed } \\ \text { Cost } \\ (\$ / \mathrm{ac}) \\ \hline \end{gathered}$ | $\begin{aligned} & \hline \text { Total } \\ & \text { Costs } \\ & (\$ / \mathrm{ac}) \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Yield } \\ & \text { (bu/ac) } \end{aligned}$ | Revenue (\$/ac) | $\begin{aligned} & \text { NET } \\ & (\$ / a c) \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 Return for Zone \#6 @ 46.7 ac. |  |  |  |  |  |  | -\$1,103.05 |  |  |  |





