

MARTIN

*family farms*

# Martin Family Farms

- Operate @ 5600 acres in Central Illinois
- Raise corn & soybeans
- Proponents of Conservation & Strip-Till
- Operate a tree and prairie grass planting business on CRP acres



# Technology on our farm



- All tractors equipped with auto-steer and GS 2 displays
- Three RTK receivers for planting & anhydrous application
- Two SF 1 receivers for tillage
- Use Apex software



## Strip –Till

- JD 9530 with JD 2510s 16 row strip-till bar
- Tractor has RTK receiver
- I-Guide system put on toolbar in 2009



# Planting

- Plant with (24 & 16 row) swath control & variable rate drive
- Both tractors on RTK following strips made the previous fall
- Switch I-guide to planter from NH<sub>3</sub> bar





Try to Make It Easy !!!

- We have the same set up in each tractor/combine
- Allows for easy troubleshooting.
- Each Landlord is listed separately with all of their farms listed individually.
- For Planting and  $\text{NH}_3$  we use the RTK signal there are only two lines, Even & Odd

# How Technology Makes It Pay

- Multi-year use of RTK allows strips to go between old rows every year
- RTK allows for more uniform emergence by staying on strips more consistently
- If one plant in every 17.5 ft of row emerges 2-3 days later can rob 7 BPA from the yield potential
- Can add \$25-\$30 per acre vs. driving the strips
- I-Guide, other new tools continue to make precision farming more precise





## SF 1 Receivers Vertical Tillage/Tillage/Spring NH<sub>3</sub>

- For these applications we use two lines North /South lines and East/ West lines, depending on row direction
- Easy to switch from field to field for part time help
- With 1 ft. overlap on our farm using 32 ft implement adds about 150 acres of extra work
- Do not need RTK for these applications



# Swath Control On Our Farm

## How it Paid

- Planting last year saved us @ 16 bags of corn on whole farm
- \$300/bag = \$4800
- Figure same rows yielded 20% better than if overlapped
- Added another 1200 bushels of corn @ \$5.00 = \$6,000
- Plus easier to harvest!

## Cost of Swath Control

- @ \$500 per row plus \$2400 activation(maybe rate controller)
- 24 row planter @\$14,000
- 1-2 year payback



## Chemical Application

- Use light bar for overlap (still counting rows)
- Drift Reduction nozzles
- Plan to add swath control to sprayer next year or two.
- Economic and Environmental benefits.
- $\frac{1}{2}$  row overlap on our farm = 120 acres
- @ \$4,000 total savings per pass & less product applied.
- Payback estimated.....



## Dry Fertilizer & Lime

- Began VRT Application 2-3 years ago.
- Soil Tests taken on 2.5 acre grids
- Spring Tests so info can be used for fall applications
- Fertilizer Recommendations based on 220 bu corn & 60 bu soybeans
- Maybe not save money up front but try to make fields more uniform.
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# KSI LABORATORIES

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SHELBYVILLE, ILLINOIS 62565  
PHONE (217) 774-2421



Operator: DOUG MARTIN  
Field: COWAN #1  
Acres: 52.2

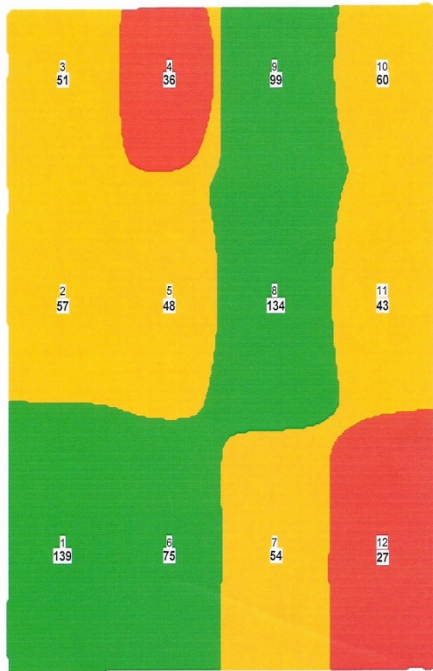
Field ID: 105102  
Date: 05/28/2010  
Submitted By: OPERATOR M

## PHOSPHORUS

1 inch = 341 feet

### Legend

- BELOW 40
- 40 - 65
- ABOVE 65
- ROAD
- TREES/GRASS
- PASTURE
- WATER



Latitude: 39.9663  
Longitude: 89.1960  
Grid Size: 660nsX330ew

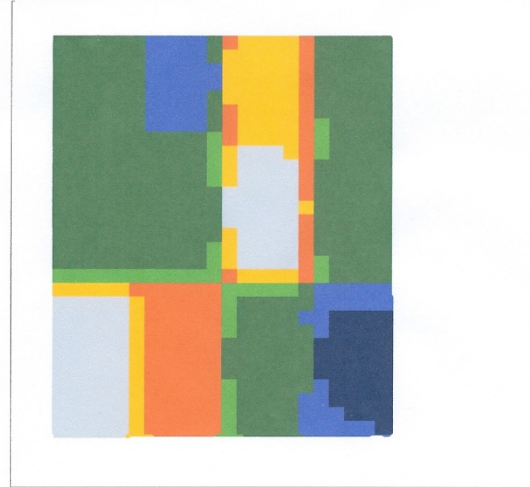
## Summary For Arcview Vrt File - S:\AAVRT\1\105102P.shp

Operator: MARDO  
Field: COWAN #1  
Acres: 52.2

Field ID: 105102  
Date: 05/28/2010  
Submitted By: Main

Zone	Legend	Acres	Rate	Material
1	0	7.3	0.0	0.0
2	50	5.2	50.0	260.0
3	100	6.4	100.6	643.7
4	150	2.8	150.3	420.9
5	200	23.6	200.0	4720.7
6	250	4.5	247.6	1114.2
7	300	2.9	298.8	866.6
8	350	0.0	0.00	0.0
Totals		52.7	152.3	8026.1

Latitude: 39.96629      DAP Map      Non Zero      45.4      176.8  
Longitude: 89.19602





## Mapping Software

- We currently use APEX from John Deere
  - Why—Support staff with local dealer and having John Deere equipment
- Made the decision that it is a cost of doing business
- Planting Maps- know where varieties are in fields..( insurance spot check BYE)
- Planting Prescriptions based on soil type
- Harvest Yield Data- Have been able to work with landlords to improve drainage.
  -
- We have had over 500 acres tiled in last 2-3 years.
- Harvest Reports aid in variety selection

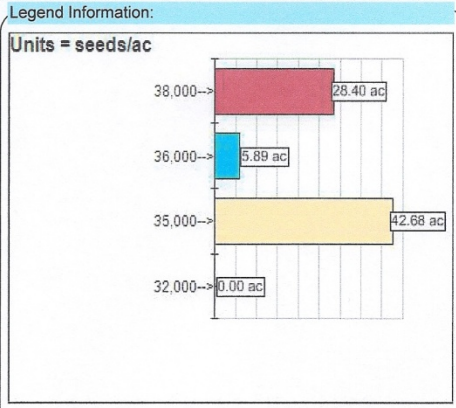
# JWT Bo-Jac corn Rx

Doug Martin

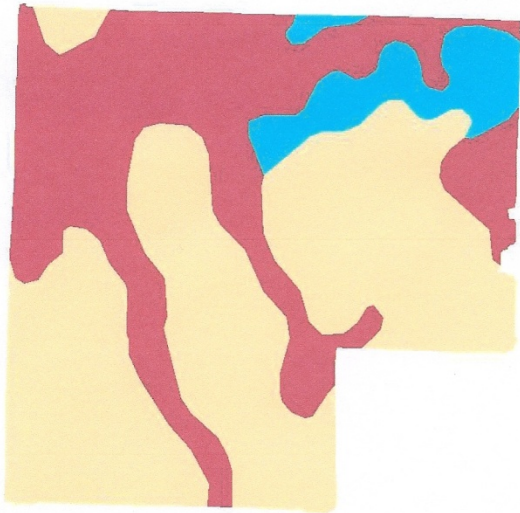


**Client Information:**  
 Client: Doug Martin  
 Farm:  
 Field: JWT (Bo-Jac)

**Field Information:**  
 Prescription: JWT Bo-Jac corn Rx  
 Crop Season: 2011  
 Rx Type: Seeding by seed count  
 Product Type: Corn  
 Product Name: CH 209-77 VT3  
 Average: 36,183 seeds/ac  
 Loss of GPS Rate: 32,000 seeds/ac  
 Out of Field Rate: 35,000 seeds/ac  
 Area: 76.97 ac  
 Total needed: 2,785,164 seeds



Field information and legend apply to active map layer only.



# Soil Map Summary

Doug Martin



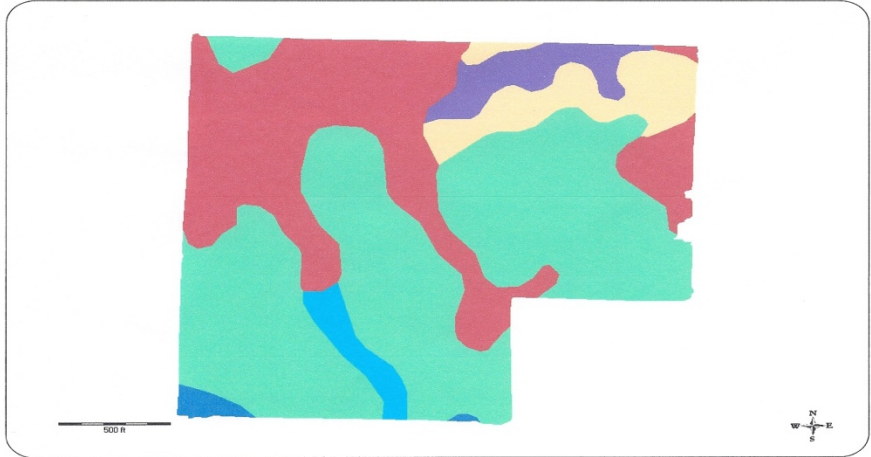
**Client Information:**  
 Client: Doug Martin  
 Farm:  
 Field: JWT (Bo-Jac)

**Legend Information:**

Color	Value
Blue	16A
Green	17A
Yellow	257A
Light Blue	279A
Purple	43A
Red	68A

**Field Information:**

Field information and legend apply to active map layer only.



# Agronomic Technology

- Several different technologies in one variety of corn
- This allows us to raise continuous corn by using a wide variety of tillage practices
- Can provide up to 30-50 bushels per acre advantage
- With corn @ \$4.00 that equals \$600,000
- Higher yields mean higher crop insurance guarantee
- Allow us to provide higher return to landowner, which we are seeing today in land values & rents



# Verification

- Refuge on left side of map shows yields of 160-180

- Biotech corn on right shows yields from 180-220+

## Dry Yield



Client Information:	
Client:	Doug Martin
Farm:	Midway (Broughton)
Field:	Broughton Farm

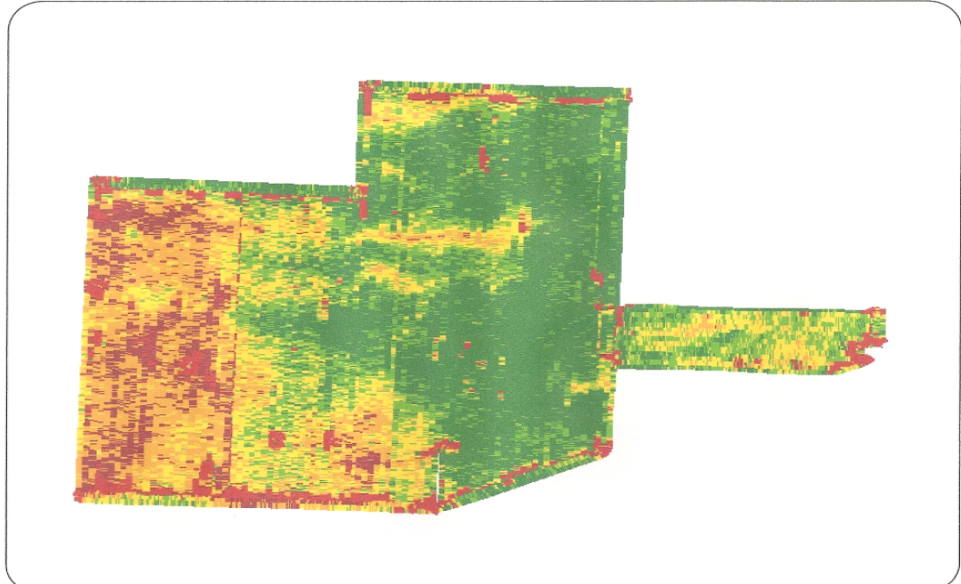
  

Field Information:	
Crop:	Corn
Start Date:	10/8/2008
Product:	Corn
Elapsed Time:	12.489 h
Area:	150.30 ac
Average Yield:	199.54 bu/ac
Average Dry Weight:	11,174.01 lb/ac
Total Yield:	29,891.59 bu
Total Dry Weight:	1,673,928.76 lb
Average Moisture:	21.28 %
Productivity (area/hour):	12.03 ac/h

Legend Information:	
Units = bu/ac	
Greater than 220.00-->	52.23 ac
200.00 - 220.00-->	28.81 ac
180.00 - 200.00-->	26.40 ac
160.00 - 180.00-->	24.60 ac
140.00 - 160.00-->	10.59 ac
Less than 140.00-->	7.66 ac

Field information and legend apply to active map layer only.







## TIPS

- Don't be afraid of it. It is not rocket science!
- Buy from a dealer that has good support staff
- It takes some adjusting. Not Perfect (guess rows)
- Keep an eye on it. signal strength etc.
- Problems are usually simple to fix (wrong button)
- Don't be surprised what happens

The Twitter logo, featuring the word "twitter" in a light blue, rounded, lowercase font with a white outline.

## Social Media

The Facebook logo, consisting of the word "facebook" in white, lowercase, sans-serif font on a solid blue rectangular background.The YouTube logo, featuring the word "You" in black and "Tube" in white inside a red rounded rectangle, with the tagline "Broadcast Yourself" below it.The GoDaddy logo, featuring a cartoon character with a green face and glasses, with the text "Go Daddy .COM" below it.The TypePad logo, featuring a stylized envelope icon and the text "TypePad" in a serif font, with "powered by" and "typepad.com" below it.

- This technology is allowing us to communicate to people all over the world
- It helps me communicate with absentee landowners
- On-farm videos & applications help explain how things are done on the farm
- Weekly farm updates that keep people “in touch” with what is happening on our farm
- You never know who or what you will come in contact with



[www.martinfamilyfarms.org](http://www.martinfamilyfarms.org)

