

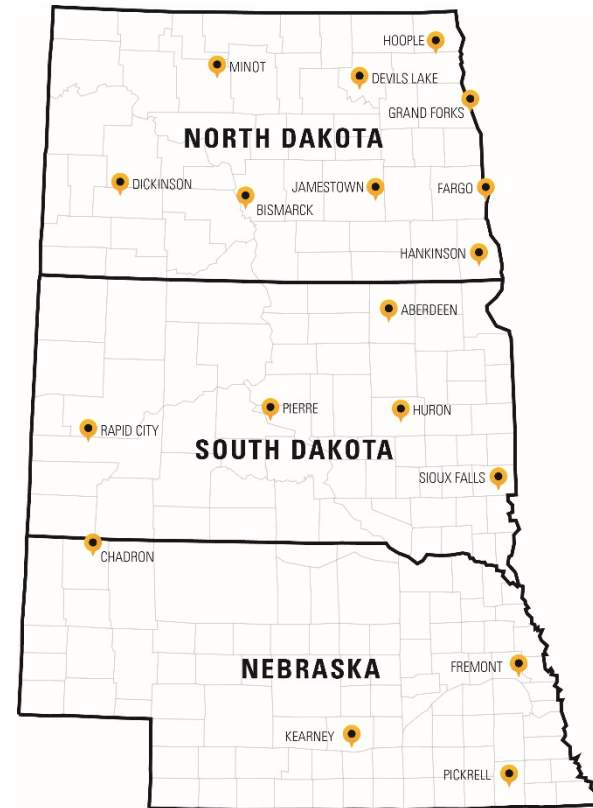
# Mastering a Marketable Niche with Customized Precision Problem-Solving

Matt Miller  
Product Specialist  
Butler Ag Equipment  
January 7-8, 2019



# Butler Machinery Co.

- 18 Stores in 3 states
- AGCO, CAT, and others as well as various short lines
- Various technology brands



# Hale Group Survey - 2014

## THE DIGITAL TRANSFORMATION OF ROW CROP AGRICULTURE

- The most trusted sources of information about new products and services, in descending order of trustworthiness, are:
  - The farmer's ag retailer agronomist
  - The farmer's seed salesman
  - An independent crop consultant
  - The Extension Service staff person
  - Neighbors
  - The farmer's equipment dealer

December 2014

Prepared by:

The Hale Group, Ltd.  
8 Cherry Street  
Danvers, MA 01923  
978-777-9077

340 East

The major educational needs of farmers – as derived from the farmer survey, the farmer interviews, and the farmer focus groups are:

- A clear explanation of how to understand the new Digital Agriculture technology.
- An assessment of whether the new tools actually perform as indicated by the manufacturers.
- An assessment of the legal documents that farmers are required to sign when purchasing the new products and services.
- An independent evaluation of the economic benefit of the new technology.

The Hale Group LSC  
Digital Transformation of Row Crop Agriculture

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# “Marketable Niche”

- Necessity to growing business
- Most of us have this, maybe without realizing it
- “Differentiator”
- Target market



# RTK Correction Solution

*“We need an affordable, reliable, flexible RTK correction source for our customers.”*

- Existing RTK Base network has its limitations
  - Distance, frequency, brand, etc.
- Solution that has an acceptable ROI
- Solution that adapts/integrates into other technologies

# RTK Correction Solution

“We need an affordable, reliable, flexible RTK correction source *with other benefits.*”

- Data management – wireless data transfer
- Sharing coverage, guidance lines, yield mapping with multiple machines
- Optional in-cab Wifi for other devices
- Remote Support – reduce down time, resolve issues quicker

# RTK Correction Solution

“We need an affordable, reliable, flexible RTK correction source with other benefits *and growth.*”

- Expandable – future revenue streams
  - Used in other industries
- Managed & supported internally
  - Minimal personnel and utilize IT Dept.



The Virtual Reference Stations (VRS) are networked using the latest in positioning software from Trimble, utilizing multiple GPS and Glonass (GNSS) Base Stations located across North and South Dakota. Each location was selected and installed based on the NGS (National Geodetic Survey) guidelines to ensure a high level of network performance.





Our solution is for...

Anyone with RTK correction needs that has sufficient cell coverage simply connects via a cell modem or Wi-Fi Hotspot for a personalized signal, specific to their location without the hassle of setting up a base station or radio.

# MIDSTATESVRS

RTK WITHOUT THE BASE

POWERED BY

Butler CAT



844.830.3974



COVERAGE AREA



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- Subscription based
- Competitively priced
- Colorblind
- Full accuracy within the VRS network
- Scalable for the customer
  - If there's a modem/hotspot in the cab...

Exceptional, reliable, RTK accuracy provided by the VRS Network



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Exceptional, reliable accuracy with two-way data transfer powered by Butler's MidStates VRS cellular based Network. NextSwath End Row turn technology provided by Trimble.



# Spring 2018

- Roundtable discussion
- Goals for 2018
- Increase new planter sales
- Increase awareness of our product offering



# AGCO Crop Tour

- Started in 2016
- Centered around White Planters with Precision Planting factory components
- Grower field events
- “Real Personalized Data”
  - Plot results and Planter ROI








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DigiFarm  
Your City. Your World.

 AgDNA

 Yetter  
FARM EQUIPMENT

 AV  
aerovironment

 CHARTER  
SOFTWARE INC.

 Ag Leader®

 PRAXIDYN

 MonTag

 REICHHARDT  
electronic • innovations

 L  
LAPORGE

 TOPCON  
Agriculture

 Precision  
Planting



  
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**DigiFarm**  
from John Deere

 **AgDNA**

  
**Yetter**  
FARM EQUIPMENT

  
**AV**  
aerovironment

  
**CHARTER**  
SOFTWARE INC.

  
**Ag Leader**®

 **PRAXIDYN**

  
**MonTag**

  
**REICHARDT**  
electronic • innovations

  
**LAPORGE**

 **TOPCON**  
Agriculture

 **Precision Planting**



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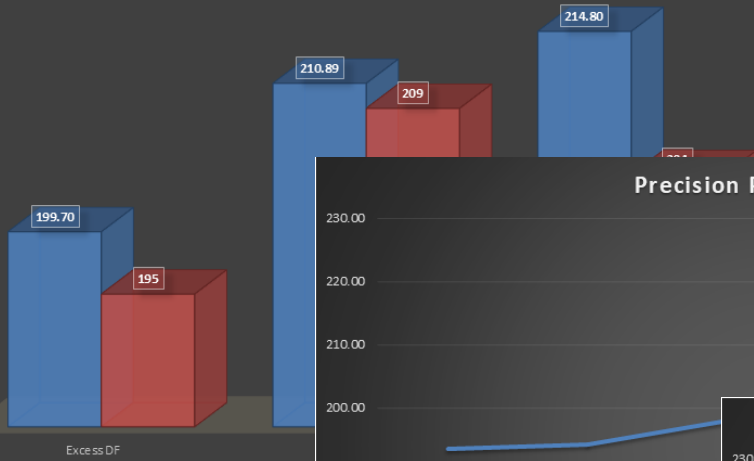
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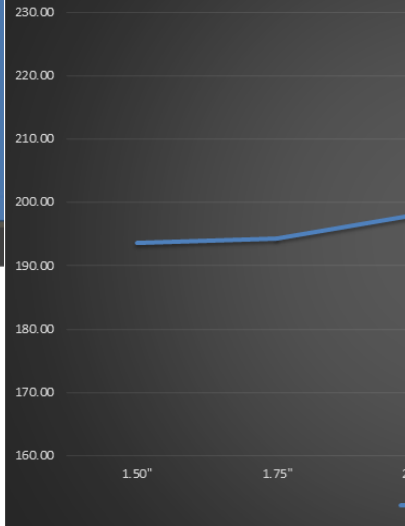


### FREMONT VS AGCO DOWNFORCE TRIAL

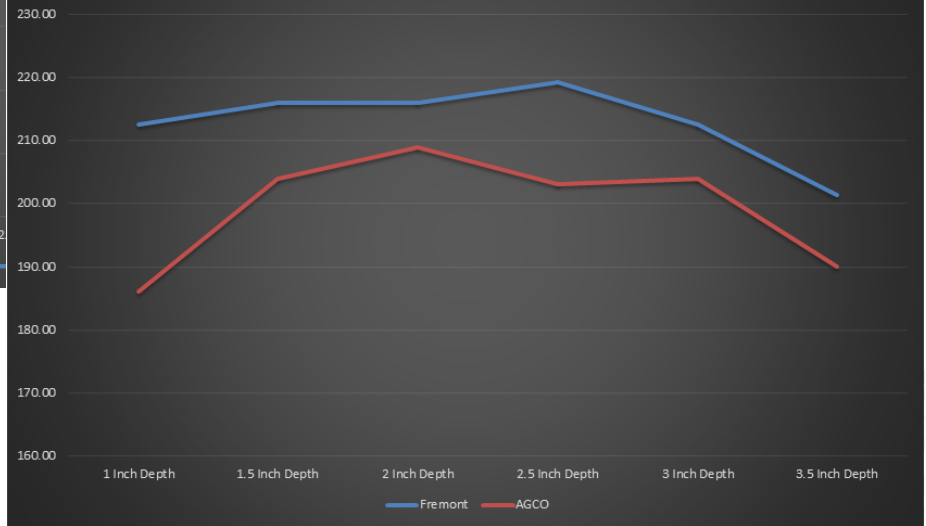
■ Fremont ■ AGCO



### Precision Planting Trials



### Fremont vs AGCO Trial



# Talking Data

- Touchpoints – more is better!
- Agronomic discussions
- Showing ROI without overselling/under delivering



# Food for thought...

- Know your target market
- Know your “options”
- Take reasonable risk
- Be consistent
- Make allies





# Thank you!



# Mastering a Marketable Niche with Customized Precision Problem-Solving

Jason Leary  
Ag Technology Manager  
Crystal Valley Co-op  
January 7-8, 2019



# Crystal Valley

- South Central Minnesota & Northern Iowa
- Ag Retail – (Agronomy, Energy, Grain, Feed)

- Local Research
- Crystal N-Sight
- Crystal Vue



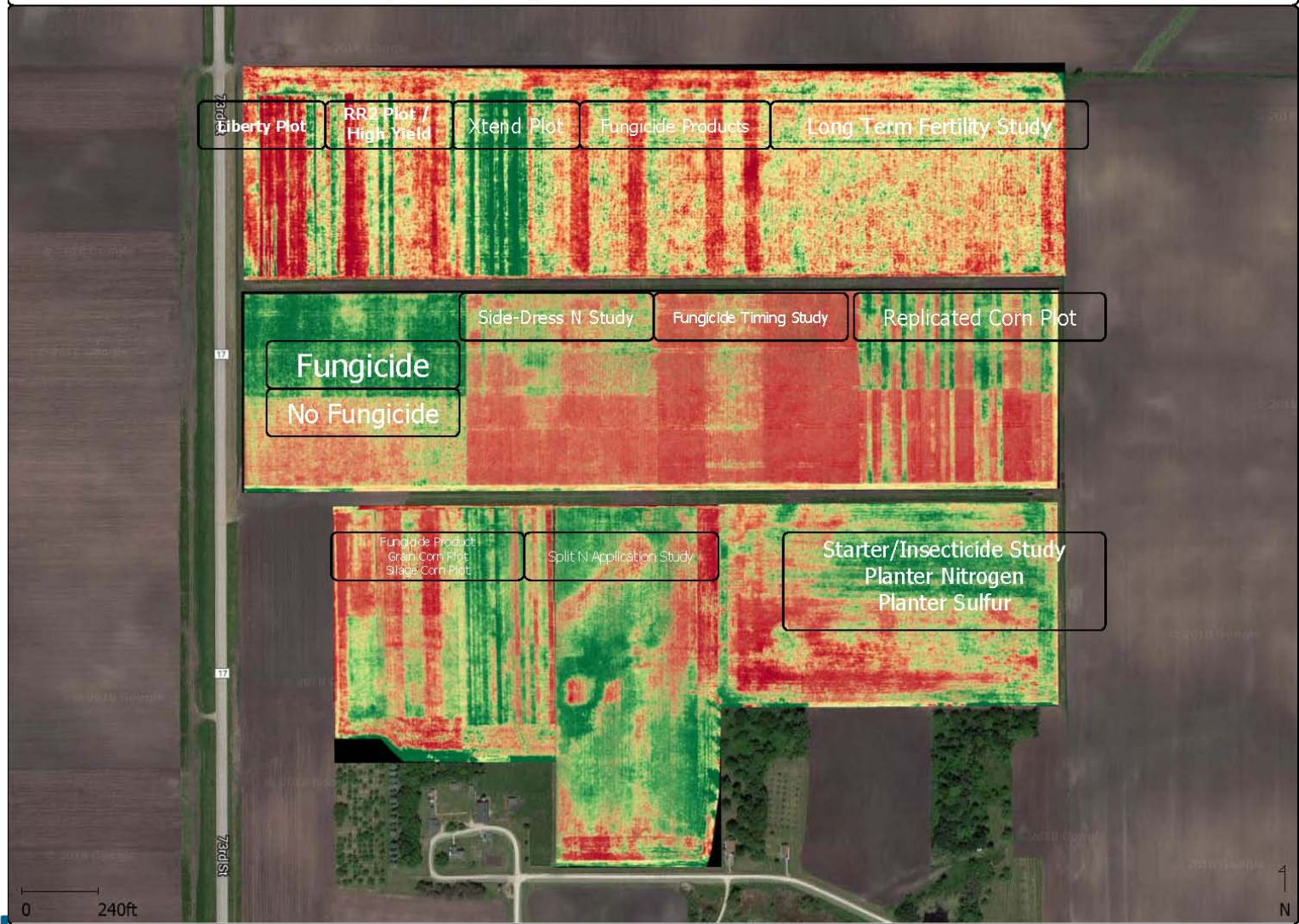
# Local Research



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# FarmAmerica- Crystal Valley 2018 Research Site - 9-14-18 Drone NDVI



9/17/2018 4:15:49 PM

Crystal Valley Precision Ag

Page 1 of 1

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# 2017 Research Locations

- 489 Acres of Plot Trials
- 8 Field Research Trials
- 27/50 Replicated Corn & Soybean Plots
- Vacuumed out >580 products
- 1,035 road miles with the planter in 13 days
  - 0.4 Acres/mile

Google earth



# Personalized & Scalable

- Finding the balance between personalized service that can be scalable.
- A lot of computer generated Nitrogen & seed prescriptions out there that are fast & easy but not personalized.
- Be able to edit recs and make customer feel comfortable.

## Crystal N-Sight

By  Crystal Valley

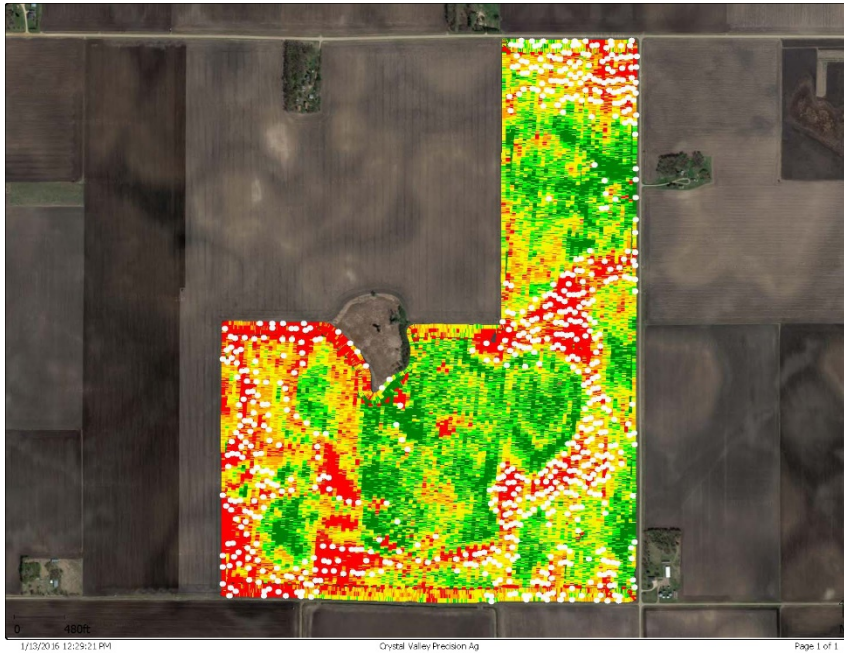
Crop Health Imagery & Y-Drop Placement for Variable Rate In-Season Nitrogen

- **Custom VR Sidedress Nitrogen Program**
- **In-Season Plant Health Based**
- **7-20 GPA Application Range**
  - 23-65 lb N/Acre
- **Includes:**
  - Plant Health Image
  - Custom Prescription
  - VR Y-Drop Application

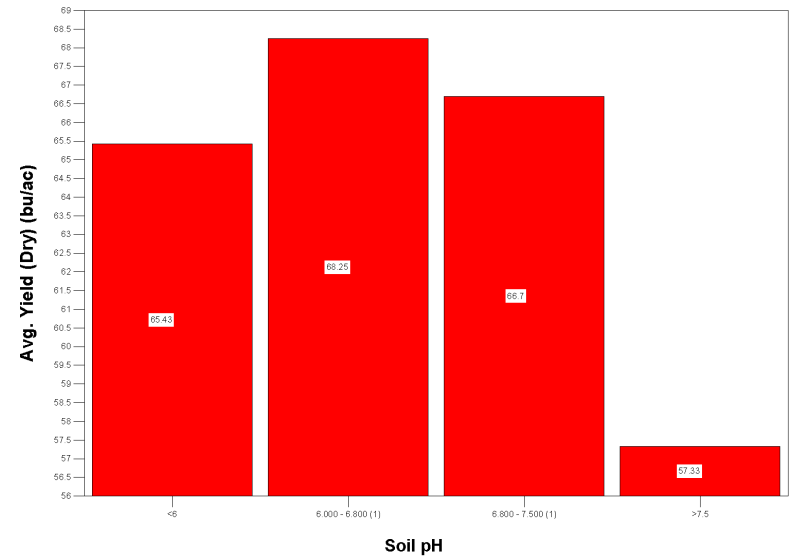




# Direct Correlation to Yield



Soybean Yield to Vue pH



1/11/2016 4:39:56 PM  
Data Altered/Created through Analysis

Crystal Valley Precision Ag

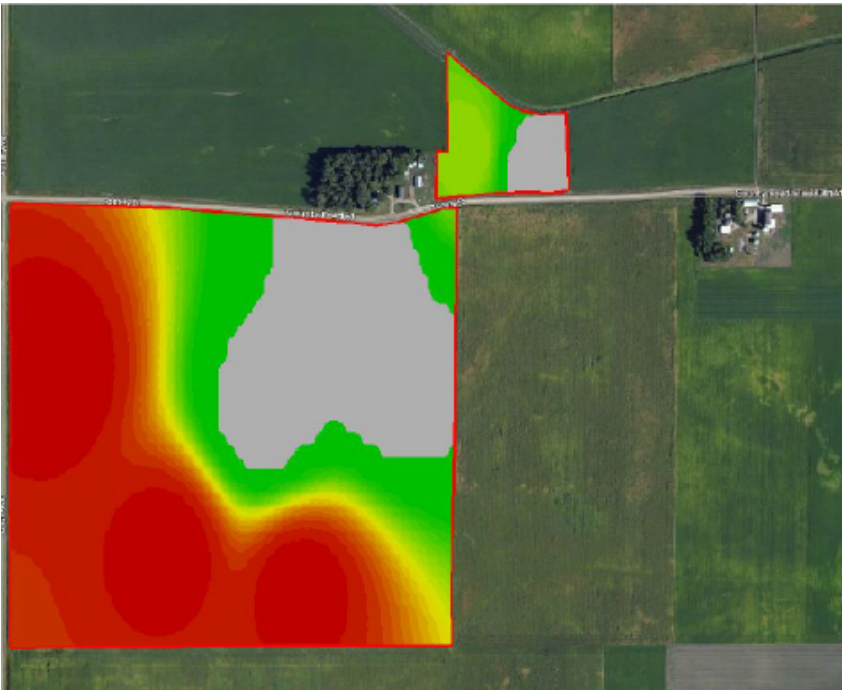


# Visual \$ Gains or Savings

2.5 Acre Grid Sample pH

366 Tons of Lime

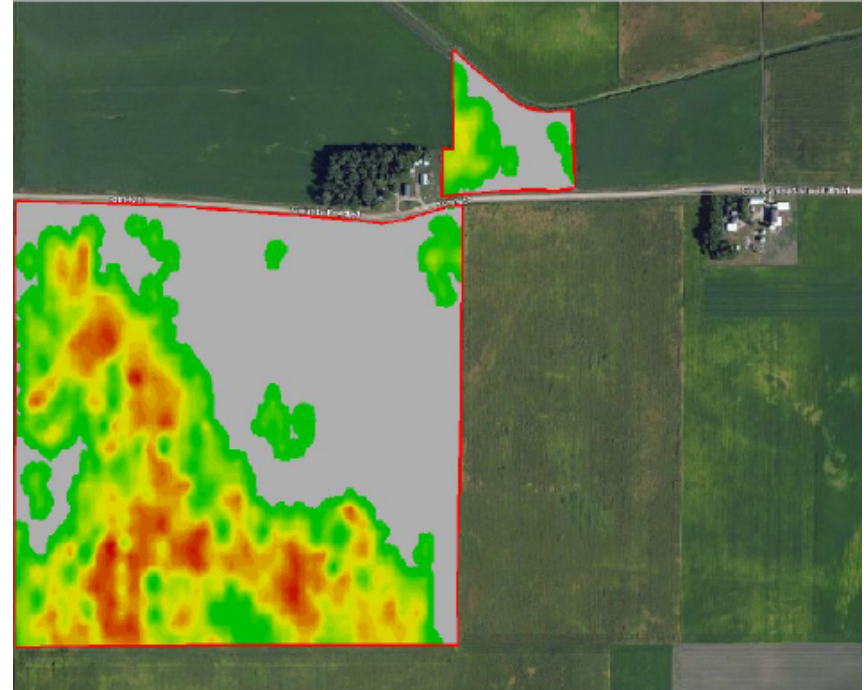
\$12,078 lime Cost



Crystal Vue pH

189 Tons of Lime

\$6,237 Lime Cost



# Thank You



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# Mastering a Marketable Niche with Customized Precision Problem-Solving

P.J. McCullough  
Precision Ag Sales  
McCullough Implement  
January 7-8, 2019



- PJ McCullough
- McCullough Implement Co.
- Watseka, Illinois
  
- Sales / Product Specialist - 2005
- [pjmccimp@mediacombb.net](mailto:pjmccimp@mediacombb.net)

# Return on Investment



# Return on Investment

Smaller Farmers (<1000 Ac.)

Older / Smaller Equipment

Newer Equipment that is not  
“Steer Ready”



# Return on Investment

- How accurate do you need to be???  
WAAS or RTK
- Repeatability – Pass to Pass or Seasonal



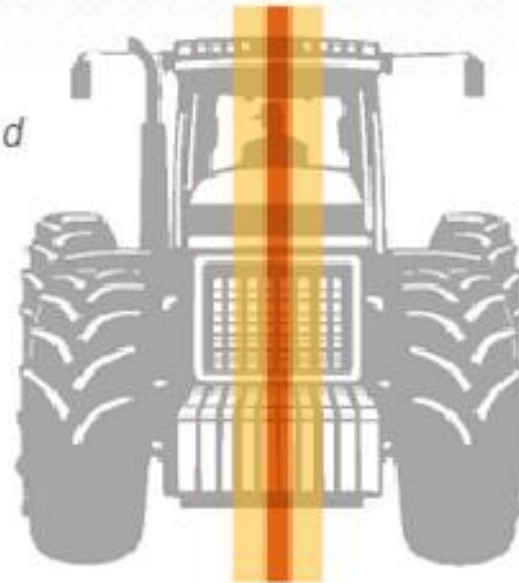
STEP

2

## Performance Expectations from Assisted Steering Systems

Relative Error Band

- WAAS
- RTK



# 80 acre field, 15' No-Till Drill, No Markers

- Without Guidance
- With Guidance



# 80 acre field, 15' No-Till Drill, No Markers

- Without Guidance
- With Guidance
- 13' per pass
- 1/4 mile = 101 passes

# 80 acre field, 15' No-Till Drill, No Markers

- Without Guidance
- With Guidance
- 13' per pass  
1/4 mile = 101 passes
- 14' per pass  
1/4 mile = 94 passes

# 80 acre field, 15' No-Till Drill, No Markers

- Without Guidance
  - 13' per pass  
1/4 mile = 101 passes
  - 14' per pass  
1/4 mile = 94 passes
- With Guidance
  - 15' per pass  
1/4 mile = 88 passes

# 80 acre field, 15' No-Till Drill, No Markers

- 101 vs. 88 = **13% savings**
- 94 vs. 88 = **7% savings**
  
- Split the Middle = **10% savings**

# Return on Investment

- **WAAS Pass to Pass accuracy ~ 3-6 in.  
Seeding with Drill or Planter**



# Return on Investment

- **WAAS Pass to Pass accuracy ~ 3-6 in.  
Seeding with Drill or Planter**
- **Outback Rebel Display \$2,495**
- **Outback E-Drive XD \$3,495**



# Return on Investment

- **WAAS Pass to Pass accuracy ~ 3-6 in.  
Seeding with Drill or Planter**
- **Outback Rebel Display \$2,495**
- **Outback E-Drive XD \$3,495**
- **Total \$6,990**

# 500 acre farmer w/Cover Crop



# 500 acre farmer w/Cover Crop

- Drill Cash Crop  $\$18.50 * 50 = \$ 925$

# 500 acre farmer w/Cover Crop

- Drill Cash Crop  $\$18.50 * 50 = \$ 925$
- Seed Savings  $\$75.00 * 50 = \$3750$

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- Drill Cash Crop  $\$18.50 * 50 = \$ 925$
- Seed Savings  $\$75.00 * 50 = \$3750$
- Drill Cover Crop  $\$18.50 * 50 = \$ 925$

# 500 acre farmer w/Cover Crop

- Drill Cash Crop  $\$18.50 * 50 = \$ 925$
- Seed Savings  $\$75.00 * 50 = \$3750$
- Drill Cover Crop  $\$18.50 * 50 = \$ 925$
- Seed Savings  $\$27.00 * 50 = \underline{\$1375}$

# 500 acre farmer w/Cover Crop

• Drill Cash Crop	\$18.50 * 50 = \$ 925
Seed Savings	\$75.00 * 50 = \$3750
• Drill Cover Crop	\$18.50 * 50 = \$ 925
Seed Savings	\$27.00 * 50 = <u>\$1375</u>
	Total \$6975

# 1000 acre corn farmer

- East / Central Illinois
  - Square Fields
  - 16 and 24 row planters
  - Familiar with ½ width point row shutoffs





# 1000 acre corn farmer

- Square 80 Acre Fields
  - ¼ mile wide x ½ mile long



# 1000 acre corn farmer

- **Square 80 Acre Field**
  - ¼ mile wide x ½ mile long
- **1320' x 10' x 2 headlands = 26,400 ft<sup>2</sup>**
- **60% of 1 acre double planted**

# 1000 acre corn farmer

- \$400 per unit Seed Corn Price
- @35,000 Plant 2.25 ac per unit



# 1000 acre corn farmer

- Farmer Saves \$80 per 80 ac Field



# Return on Investment

## Hard to Calculate Savings

- Personal / Physical (Comfort) Savings
- Ability to Closely Monitor Equipment
- Less Equipment Wear and Tear

# Questions?

## Thank You!!

