

# Fitting a Precision System To Your Strip-Till Needs

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# Discussion Today

- Talk about precision ag systems when considering a strip-till system
- Let's be interactive!!!!



# A Little About Me

- 10 years experience at Ag Leader Technology
  - Tech Support
  - Product development
    - Application
    - planting
- 15 years experience farming on my own
  - 8 years no-tilling
  - 7 years strip-tilling
    - 3 years experimenting
    - 4 years with current system



# A Little About Me

- Newton, Iowa
  - Newton is 307 miles from Springfield, IL
- I'm 50 miles from Newton so I'm a certified expert!



# Why Strip-till for Will?

- For me I it's a passion for conservation and soil health
- My neighbors produced big yields in tough conditions with tillage
- I wanted to marry soil conservation with the yields from tillage



# How Does Will Strip-Till?

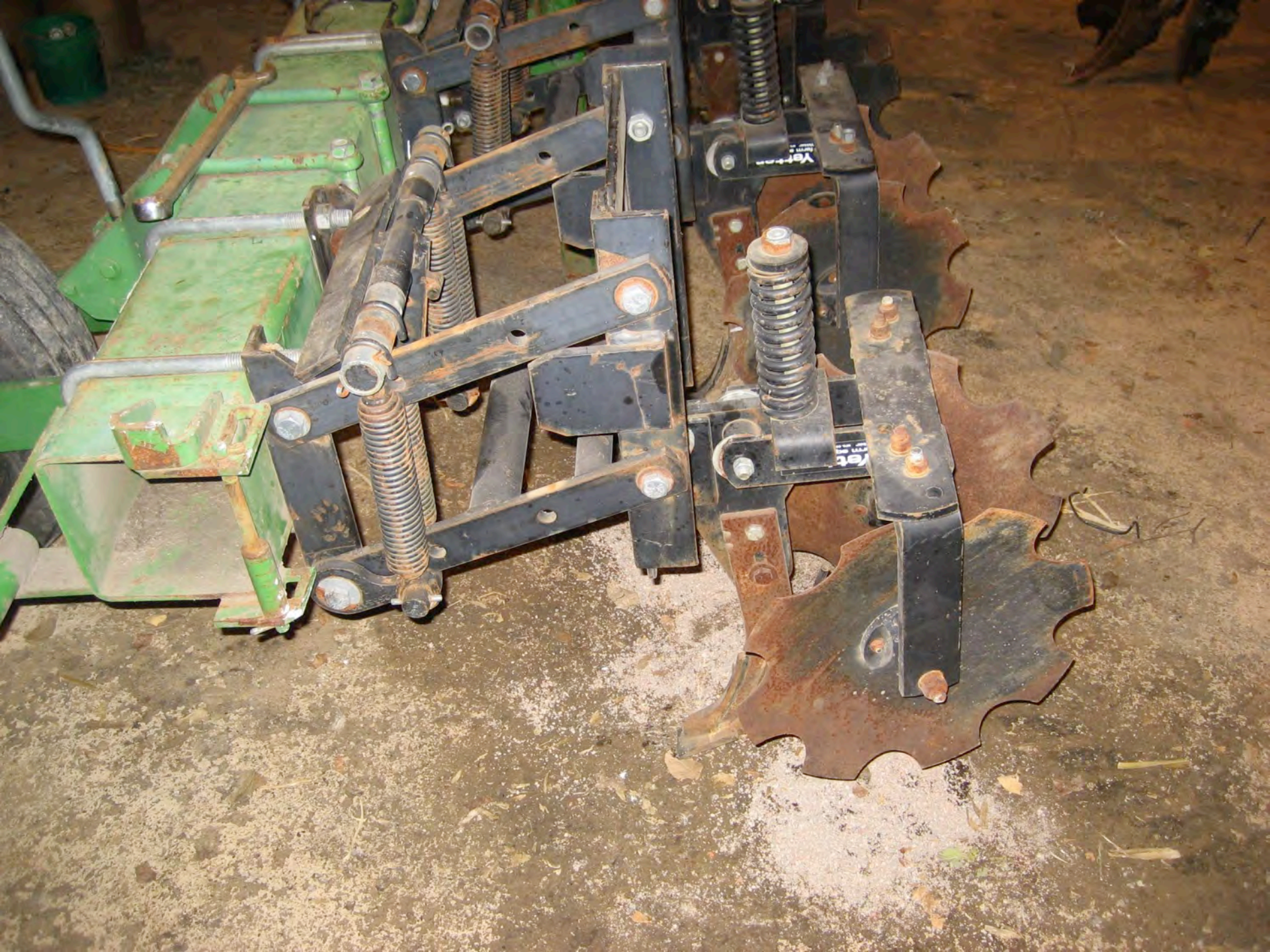
- I use a 2 pass system
- Fall application of P, K, B and S
- Spring application of the first 50 units N
- Sidedress N



# How does Will Strip-Till?

- Experimented with many strip-till units
- Decided on coulter system
  - Better residue mgmt
  - More flexible
  - Less tillage













# Will's Lessons Learned

- Get land lords involved
- Quality control is critical
- Labor and Logistics
  - High quality labor with computer skills
  - Hauling fertilizer and other products will change dynamics on your farm



# Consider the Strip-Till System

- Do I need guidance? Yes!
- What accuracy do I need?
- Do I need rate control?
- Do I need multi channel rate control?



# Consider the Whole Farm

- Do I care about the data?
- Do I have other operations to use GPS and display?



# Two Major Categories

- Display
- GPS



# Display

- What functionality do I want?
  - Guidance? YES!!!
  - Rate control? YES!!!
  - Multiple product rate control?
  - Forms of product rate control?





# Display Rate Control

- For strip-till a minimum 3 channels of control
  - Ideal would be 5+
  - You want liquid and dry control
  - Does the systems support planter rate control?



# Display

- ISO support?
  - VT support?
  - Task Controller support?
- Virtual Terminal = a “Computer Monitor”
- Task Controller = the “Internet”



# Display ISO Capability

- Today it works well for simple functionality
  - Example: grain cart scale
- In the future it will likely make precision ag more stream lined



# Display Data

- Do you care about the data? Yes!!!
- Great for record keeping
- New wireless data transfer systems will help manage guidance lines



# GPS Guidance

- ~~Manual Guidance = Lightbar~~
- Automatic Guidance = Automatic Steer
  - ~~Assisted Steering~~
  - Integrated Steering



# Assisted Steering

- They will tend to be lower cost
- They will tend to have fewer instruments creating less accurate guidance





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# Integrated Steering

- Will tend to be your “Cadillac” model
- More sensors for more accuracy
  - Inertial sensors
  - Compass
  - Terrain compensation







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# GPS Accuracy

- Pass to Pass accuracy
  - How accurate a GPS receiver is for guidance
  - Less than 15 minutes
- Repeatable accuracy
  - How accurate a receiver is always



# GPS Accuracy

- ~~WAAS~~
  - Free
  - Lowest accuracy
- ~~OmniStar (HP/XP)~~
  - Subscription
  - HP = 2" to 4" accuracy



# GPS Accuracy

- RTK
  - Most accurate
  - Most expensive
- More options to get your RTK



# RTK Sources

- Buy your own base station
- Subscription on a base station network
- CORS networks
- RTX



# RTK Base Station

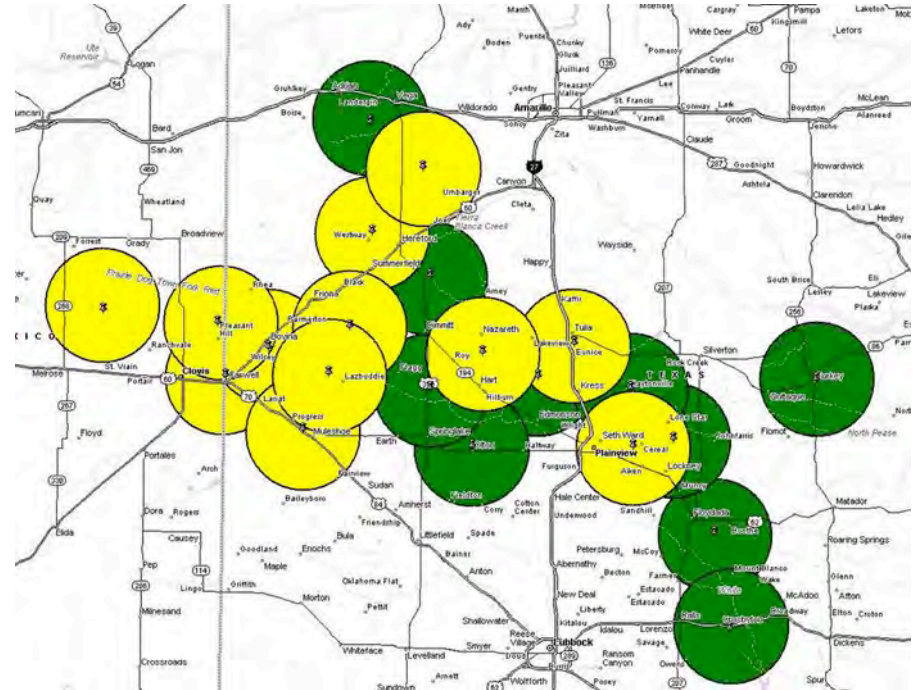
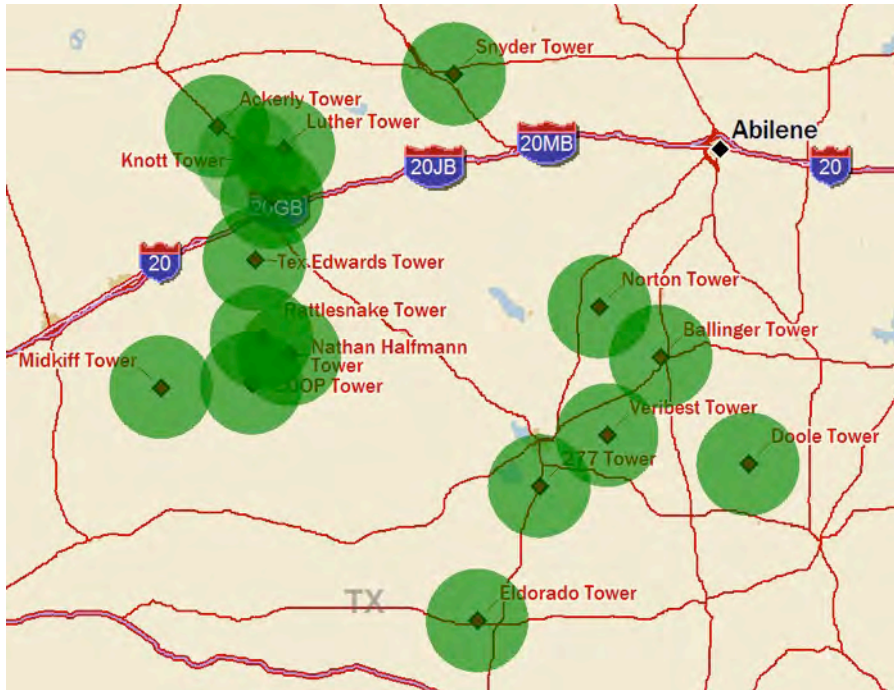


# Own a Base Station

- More expensive
- Might have limited range for your operation
  - Usually 15 mi. range
- Support?
- Most reliable
- Best control over the operation
- Easier to trouble shoot
- No annual fees



# Network RTK



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# Subscription to a Network

- The system is out of your control
- Annual fee
  - usually \$1,500
- Does the network cover your area?
- Much lower initial cost to get started
- No base station maintenance responsibilities
- Larger area of support



# CORS Network



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# CORS Network



# CORS Network

- Network is out of your control
- More difficult to trouble shoot
- Can have it's quirks
- Most affordable way to get started
- Biggest range to operate in



# Precision Ag Systems

- The Dealer
- How compatible is the system to all your farm functions
- What are your long term goals with precision ag

