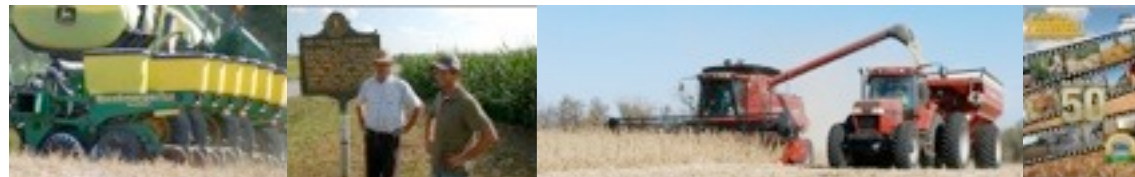


# Strip-Till? No-Till? Zone-Till? How Do We Decide?

**Donn E. Branton**  
**Branton Farms**  
**January 12, 2013**



# Overview of Our Farm

- In the beginning
- We grow a diverse variety of crops
- We do some custom work



**NO-TILL  
FARMER**



# Our Transformation

- **1979 started with full tillage**
- **1986-1995 No-Till trials**
- **1996 Zone-Till planter bought**
- **1997 Zone Builder purchased**
- **1999 No-Till air seeder purchased**
- **2004 Strip tiller purchased with ability to deep place nutrients**
- **GPS equipment added over time**
- **2011 twin row planter purchased**



# What Our Yields Have Done

- **Wheat 2008-2012, 102.23 bu/ac Avg.**  
**2003-2007, 74.94 bu/ac Avg.**
- **Corn 5 Yrs Zone-Till 116.42 bu/ac Avg.**  
**5 Yrs Strip-Till 149.59 bu/ac Avg.**  
**last 5 Yrs 170.00 bu/ac Avg.**
- **Averaged .63 lbs of purchased nitrogen per dry bushel**  
**in the last 5 Yrs.**
- **Soybeans 5 yrs prior to Strip-Tillage 34.12 bu/ac Avg.**  
**5 Yrs w/ Strip-Tillage 46.87 bu/ac Avg.**  
**last 5 Yrs. 56.35 bu/ac Avg.**



## How We Got There



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# Our No-Till Acres





# Our Zone-Till Acres



# Where we use these systems

## -Air Seeder

- For planting all small grains
- For planting processing peas
- For planting hay crops

## -Zone-Till Planter

- For planting some corn
- For planting some soybeans
- Could be used for planting any crop on 30" spacing





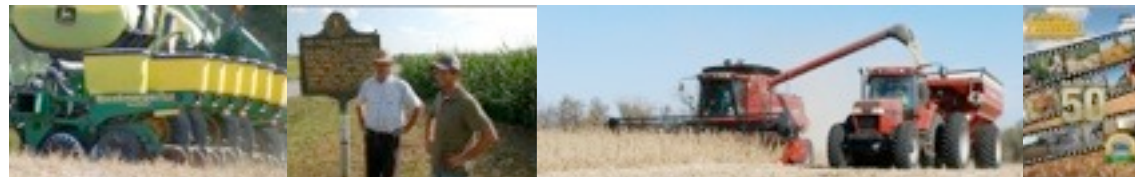
## Where we use these systems contd.

- Rocky soils
- Wet spring when planting window is shortened
- Where Strip-Tillage is not an option



# Possible limitations of No-Till and Zone-Till

- Residue management
- Total nutrient requirements
- Ground conditions, Wet/Dry extremes



# Our Strip Till Acres

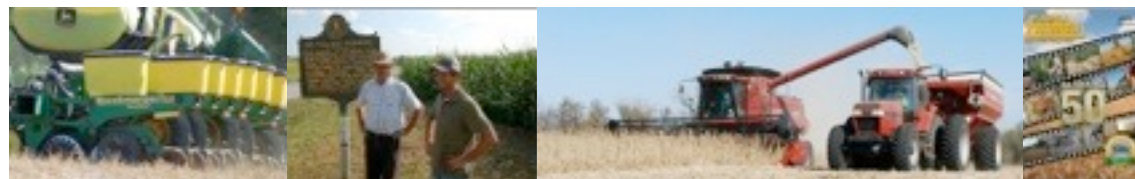


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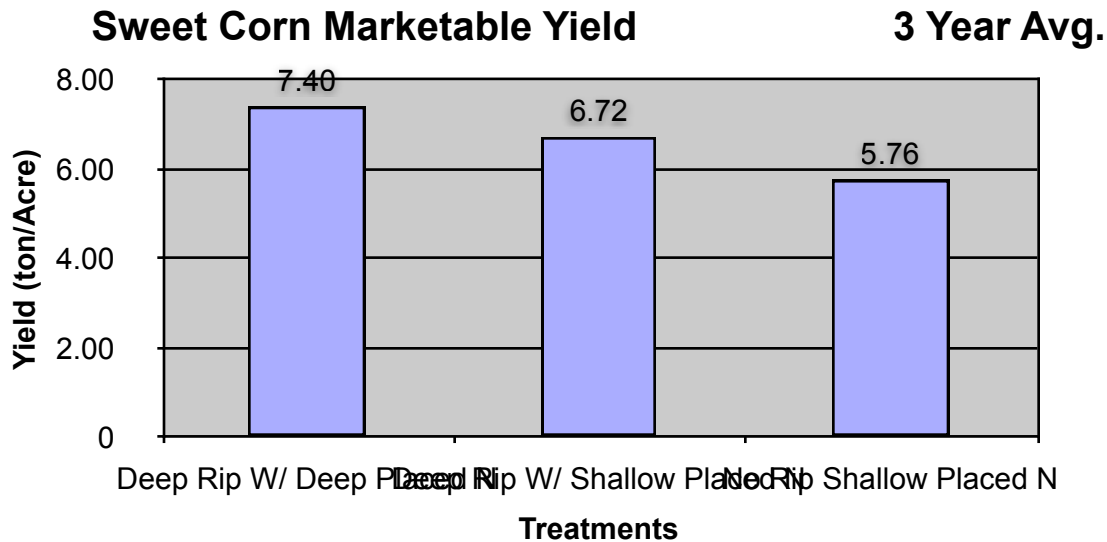


# Where and Why We Use This System

- Started using this system because planting season ran from April-July
- Added options for nutrient management
- Used for wide array of crops on 30" centers
- Works with all soil types
- Enhanced seedbed
- Relieves compaction
- Economically viable



# Benefits Of Deep Placed N With a Strip-Tiller



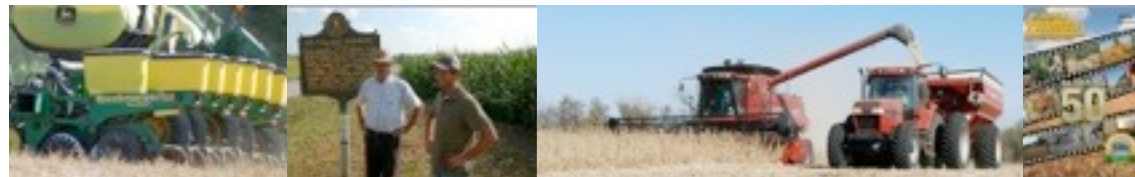
- 3 different locations
- 3 different soil types

•3 Year replicated study conducted by Cornell Cooperative Extension



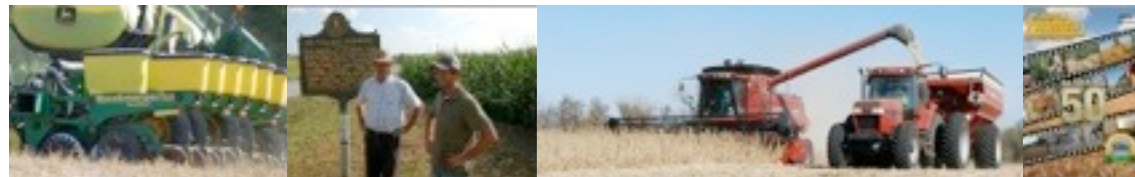
# Nutrient Application On Soybeans

- Soybeans showed no measurable response to deep placed nutrients
- Soybeans did however show an increase of 5.2 bushels/acre when comparing Strip-Till to Zone-Till on our farm
- Roughly 30lbs of N is applied through the planter on soybeans
- Starter fertilizer is used with particular caution on soybeans



# Nutrient Application On Corn

- N application is split between the planter and Strip-Tiller
- N stabilizers are used on planter applied N
- N stabilizers have not been recommended for deep placed N
- Use a sulfur source, Ammonium Thiosulfate, with all applied N



# The importance of a good starter fertilizer system

**It happens**



**Cheap but effective setup**





# Possible drawbacks of Strip-Tillage

- More equipment
  - More fuel
  - More labor
  - One more trip across the field
  - Rocks?!?
  - Soil texture
  - Are they worth it ?
- For us...YES!!



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# Questions/Comments?

