

# *Equipment for Different Situations*

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Organic Weed Control Short Course

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- Pre-plant (including sod termination)
- Pre-cultivation (aka Blind cultivation)
- Cultivation



Pre-plant

# What went wrong here ?



VS





# Tearing up cover crops/alfalfa

- Landoll Chisel Plow w/Sweeps
- Cutters to slice residue





# Tearing up cover crops/alfalfa

- John Deere 550 Mulch Master
- Treader wheels shake soil out of roots
- Limited residue clearance





# Residue left on surface





# Disk

- ▶ Case IH 496
  - ▶ 7.5 inch spacing (finishing)
  - ▶ Cuts well but limited residue burying
- ▶ Case IH 3900
  - ▶ 9 inch spacing
  - ▶ Primary tillage





# Field Cultivator/Finisher

- ▶ Great plains discovator
  - ▶ Strait cutters in front
  - ▶ Heavy spike harrow
  - ▶ 180lb shank pressure





# Field Cultivator/Finisher

- ▶ Run shallow 2-3 inches





Duetz 1400  
Chizelvator





# Brillion Cultipacker



# Spike Tooth Harrow



Pre-cultivation (aka Blind cultivation)



# Planting

-Trash whippers to move clods/residue or dry soil





# Ridge Till Planting Soybeans





# Pre-emerge Harrowing

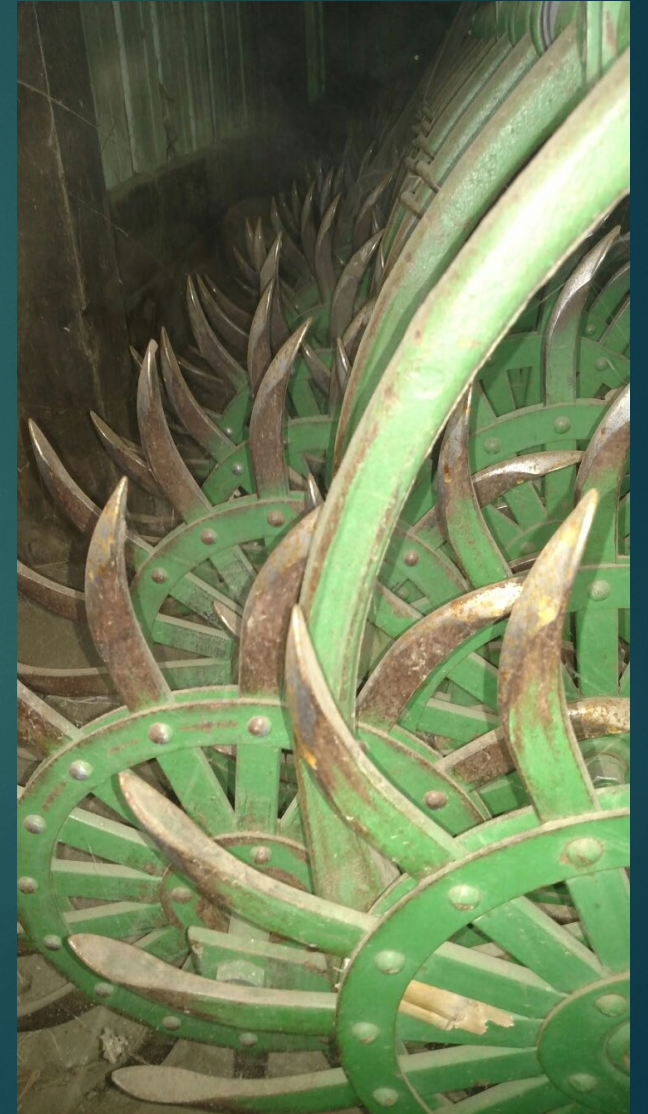
## ► Fuerst Flex Tine Harrow





# Types of Rotary Hoes

- ▶ Case Minimum Till 181MT
  - ▶ Wheels Spaced Far apart
  - ▶ Can handle extreme residue
- ▶ John Deere 400
  - ▶ Wheels close together
  - ▶ Can plug in high residue conditions





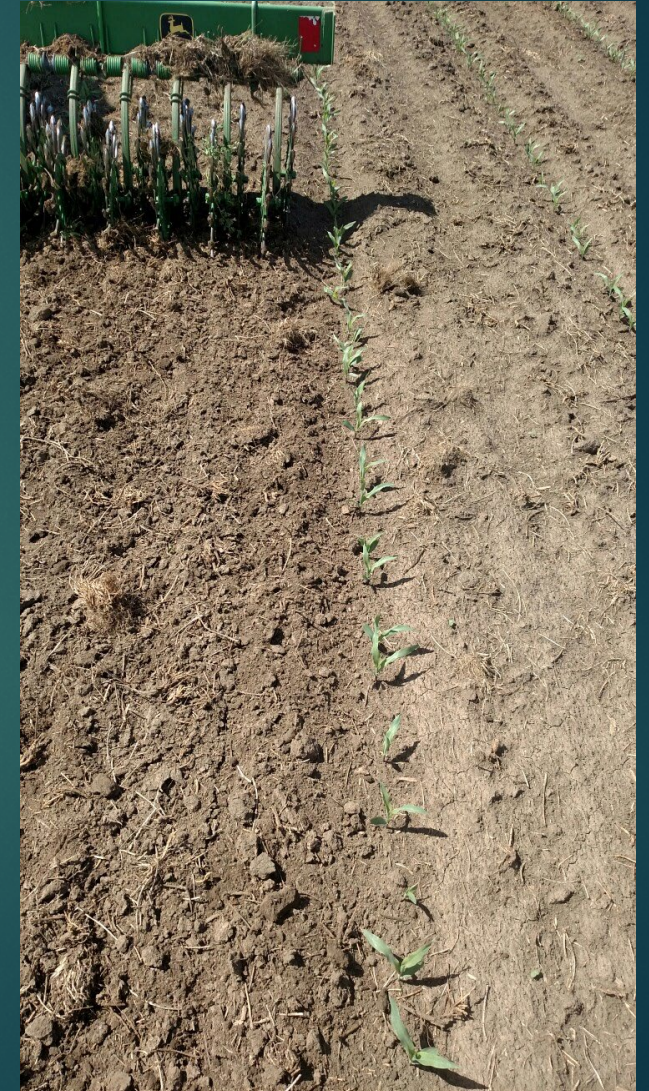
# Rotary Hoes

- ▶ Good wheels are crucial
  - Spoons should be roughly diameter of dime
  - Want lots of action





# Day 8 Rotary Hoeing 2018





# Does rotary hoeing help?





# Yetter Rotary Hoe



Avoid soybean  
stages 3-5  
When using a  
Rotary Hoe

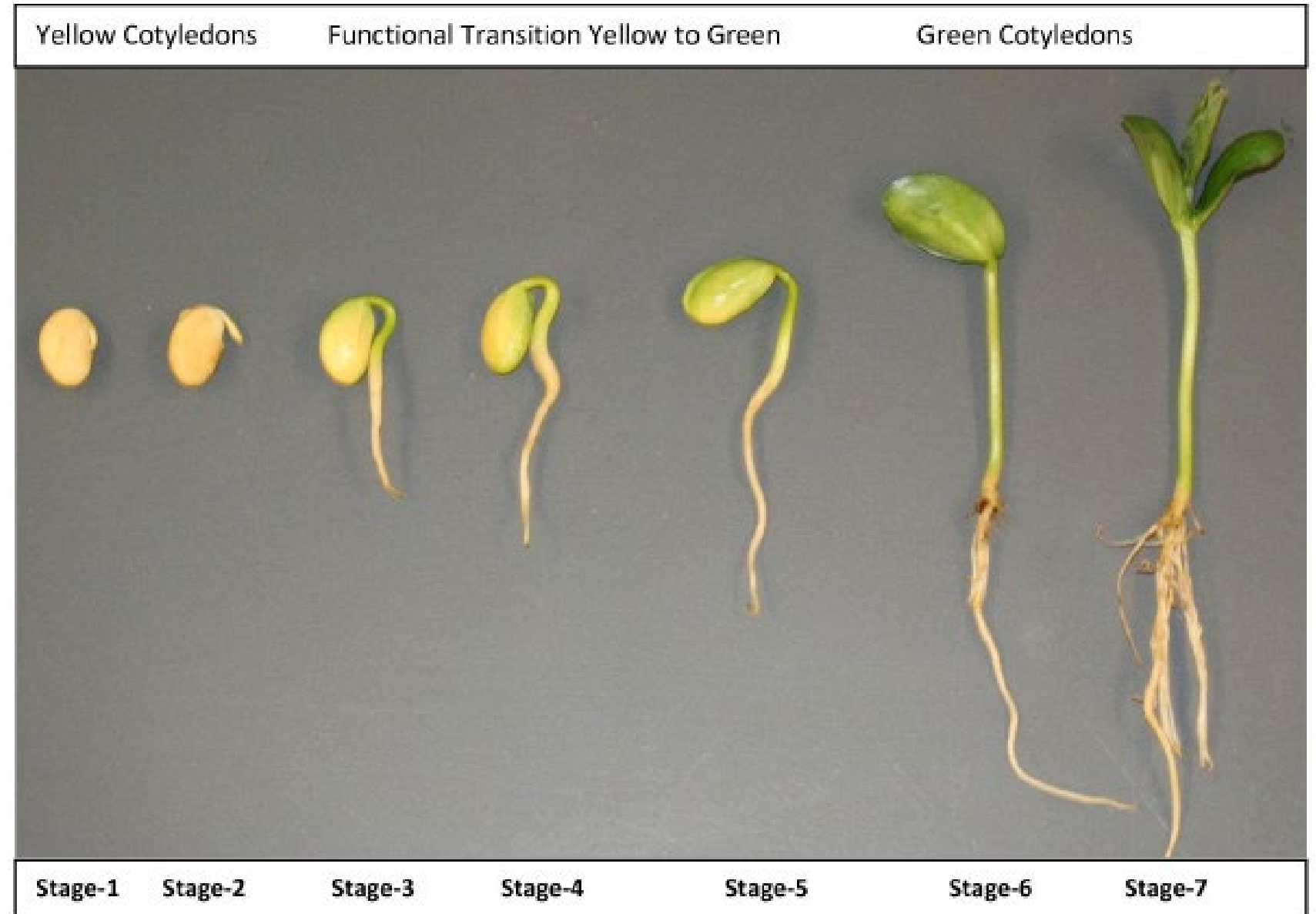


Image sourced from  
[www.Researchgate.net](http://www.Researchgate.net)

# Cultivation



# Cultivating

- ▶ Noble Vibra-shank
  - ▶ 5 small shanks per row
  - ▶ Good for loose soil conditions
  - ▶ Good for small plants
  - ▶ Limited residue clearance





# Cultivating









# IH 133 C-Shank

- ▶ Most Common style
- ▶ Fits most situations





# Cultivating

- ▶ Buffalo 4600
  - ▶ Residue cutting stabilizer disk
  - ▶ Disk Hillers pull away from row 1<sup>st</sup> pass
  - ▶ Single sweep pushes loose soil back into row
  - ▶ Can handle almost any soil condition





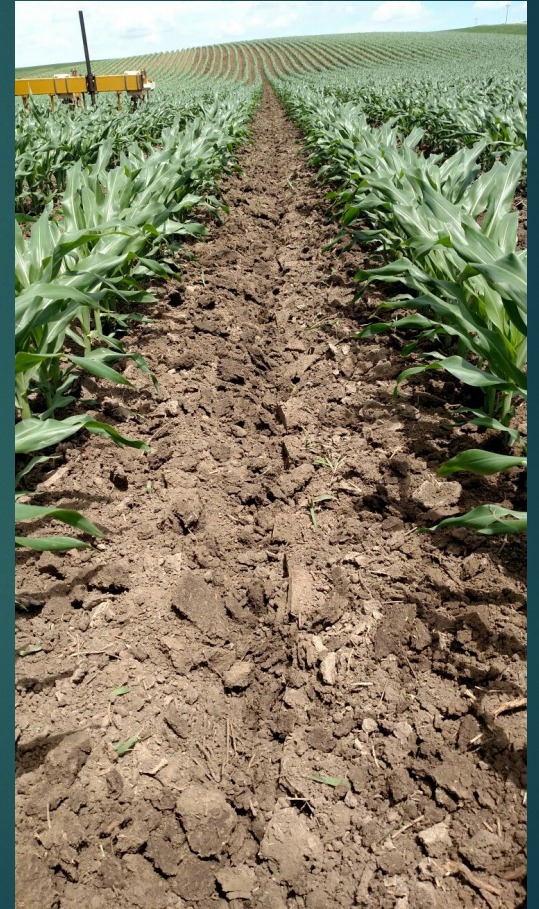
# Cultivating





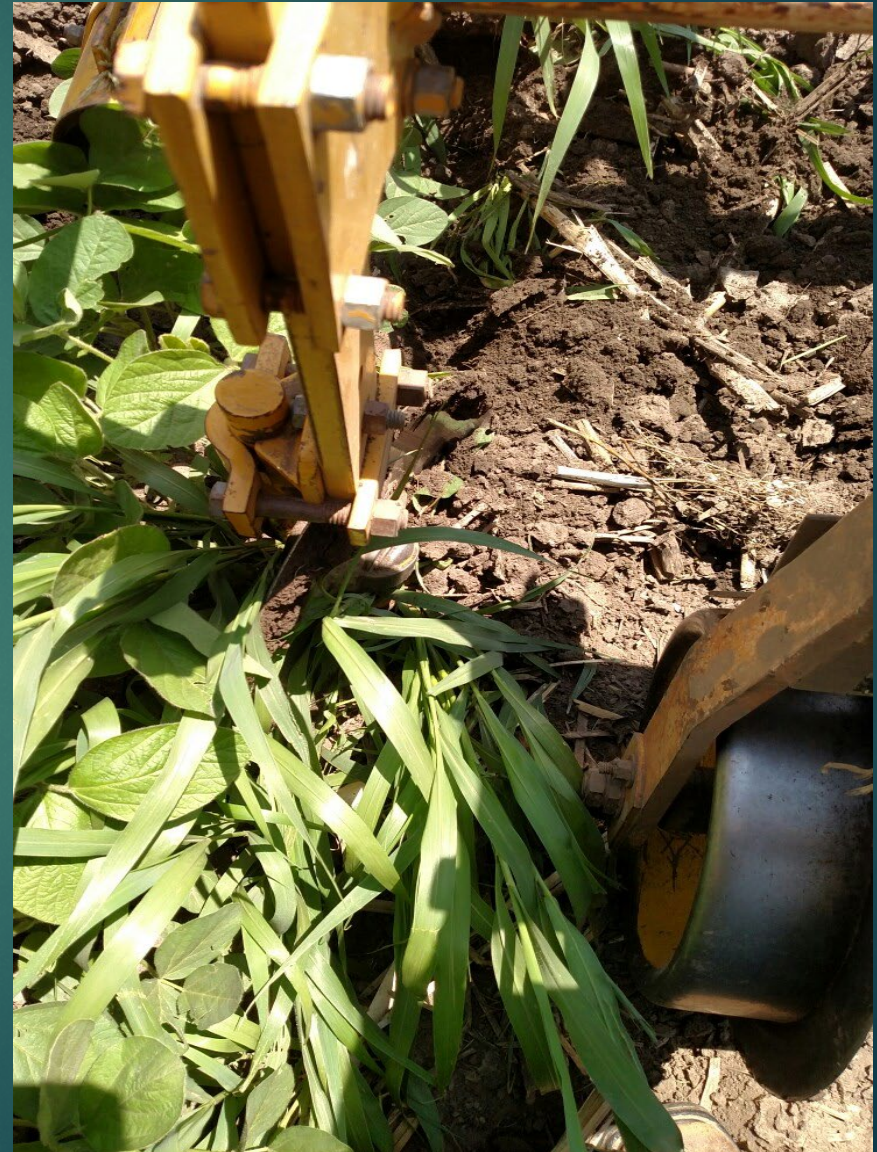


# Cultivating





# Cultivating





# Cultivating





# Cultivating 2<sup>nd</sup> pass-Ridging/Hilling





# Cultivating 2<sup>nd</sup> pass-Ridging/Hilling

- ▶ Buffalo 4600
  - ▶ Ridging wings
  - ▶ Cutaway discs throwing towards row





# Cultivating

- ▶ Cultivision Mirror
- ▶ THE KEY TO REAR MOUNT CULTIVATION!
- ▶ Klingler Manufacturing
  - ▶ 507-359-9849





# Cultivating

- ▶ Buffalo Scout guidance hitch
  - ▶ Poor mans GPS
  - ▶ Hydraulically steers cultivator
    - ▶ Wands follow crop rows
    - ▶ Crop needs to be 10-12 inches tall for wands to stay on row
  - ▶ Nice when they work
  - ▶ Very frustrating when they don't
  - ▶ Heavy-move cultivator back





# Buffalo 6300 Cultivator





Wetherall  
Conventional  
3 shank





1st Pass





2nd Pass



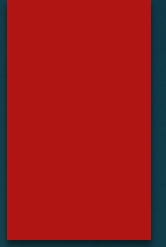


Just before 3rd  
pass





Extra fillers if needed





# Small Grains

Great Plains  
1300 minimum  
till Drill





# Cover Crops





# Mirror Mounts





When Things  
go Wrong





Don't give up





When  
things go  
right

