

# New Mexico High Plains Canola



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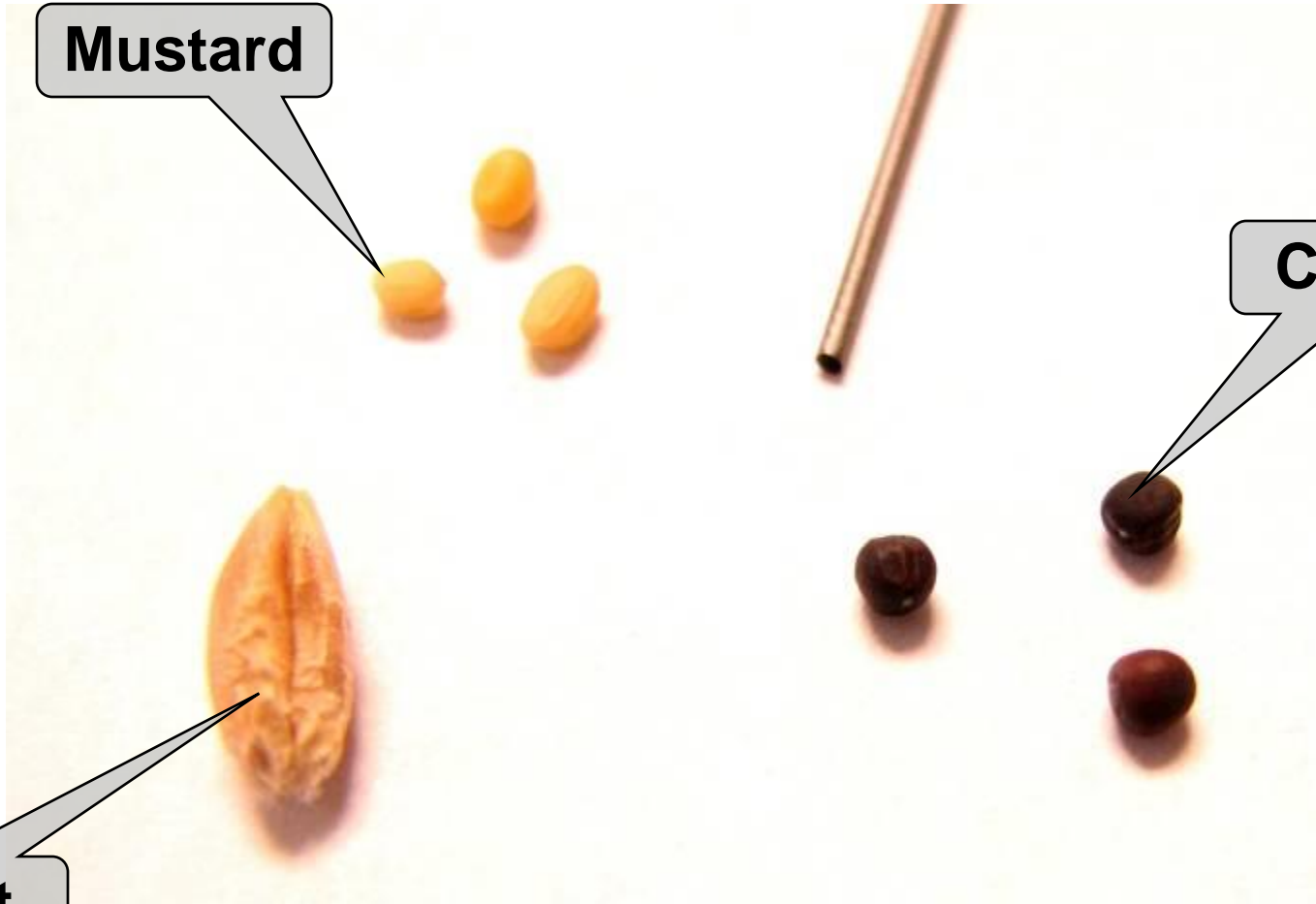
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# Small Seed with Big Potential

Mustard

Canola

Wheat



# Why Winter Canola, Why Now?

- **Highly valuable oil in food market, but also a premium oil for biodiesel**
- **Winter canola heavily researched in Oklahoma due to weed pressure in wheat**
- **Roundup Ready winter canola available**
- **USDA now funding winter canola work in Texas & New Mexico High Plains**

# Canola vs. Rapeseed

- Rapeseed is the traditional, historical crop
- CANOLA is Canadian Oil Low Acid, which has erucic acid levels (unpalatable for food) of less than 2%
- Oilseed rape is contracted in parts of the U.S.
- Winter and spring canola, the latter about 1 million acres in North Dakota, 15 million in Canada

Curry Co., NM

Hale Co., TX





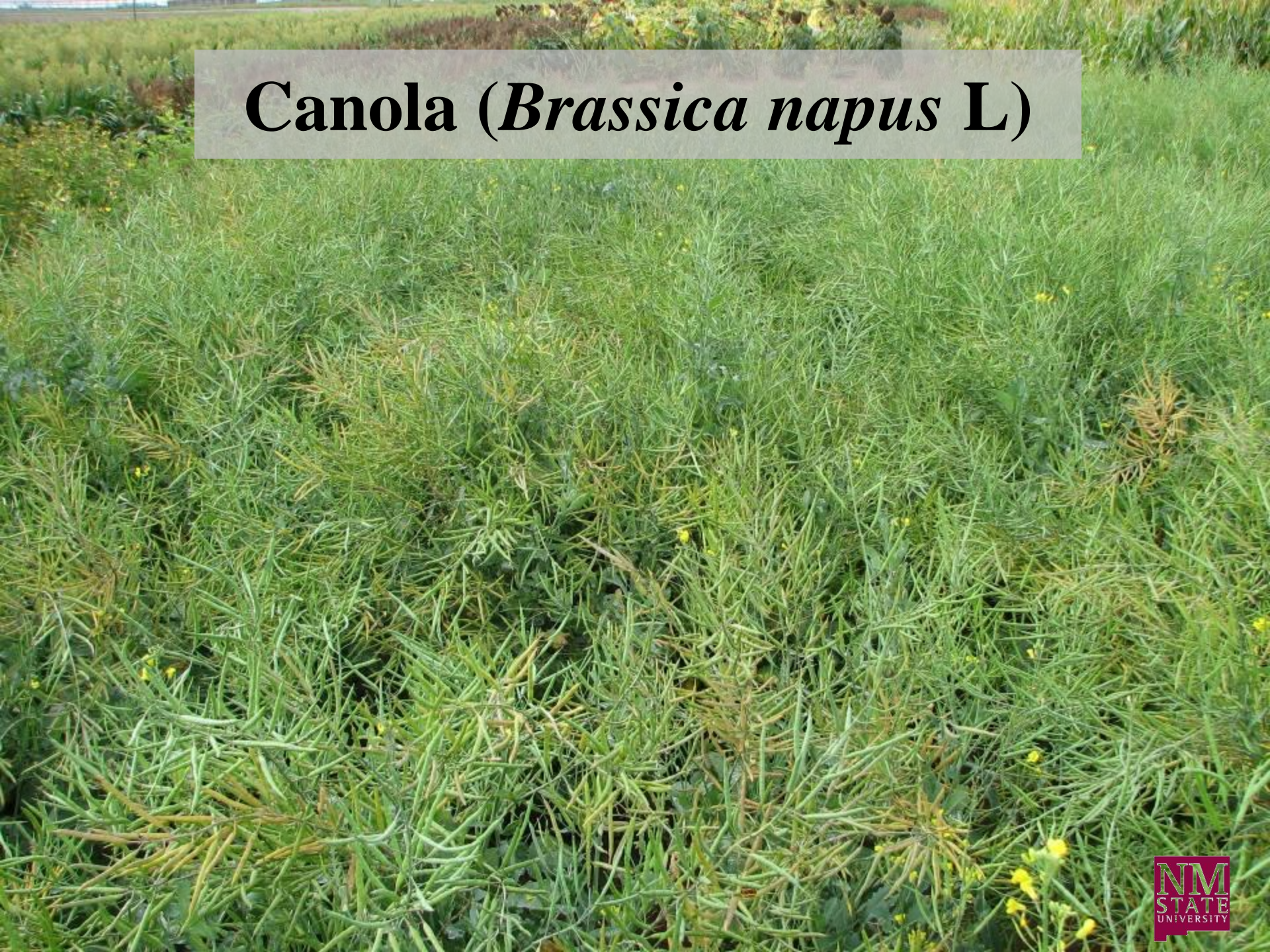
Curry Co., NM



Dumas, TX--2008



# Canola (*Brassica napus* L)



# Canola Issues & Questions

- Where is there a market?
- Rotation issues with other crops?
- Shattering losses and how to harvest?
- Can I graze canola? Rich in N—potential nitrate toxicity
- Roundup Ready varieties now have yield potential that approaches conventional
  - Sulfonyl urea (SU) tolerant conventional varieties also available {a concern coming out wheat for some herbicides}
- How does canola compare with wheat?

# Weed Issues

- Roundup (or broadleaf) weed control in the winter
- Jointed goatgrass, ryegrass, cheat, Japanese brome, etc.—Producer experience suggests that Clearfield wheat (\$\$\$!!!) works well but isn't enough to knock it out

# What about grazing?

- If you graze wheat a lot, then going to canola may leave a gap in your grazing needs?
- Most advice from OSU and especially the seed companies suggests no grazing
- Can achieve some grazing benefit, but must be lightly grazed and probably stop a couple of weeks prior to wheat jointing (~March 1<sup>st</sup>)
- Alan Brinkerhoff, Bailey Co. & eastern NM

# Planting and Population

# Canola Planting



- Seed bed must be firm
- Seeding depth—0.5-1.0”
- Seed rate—2-10 lbs./A, but 5 is usu. OK
- We recommend seed insecticide treatments
- Date of planting

# Date of Planting

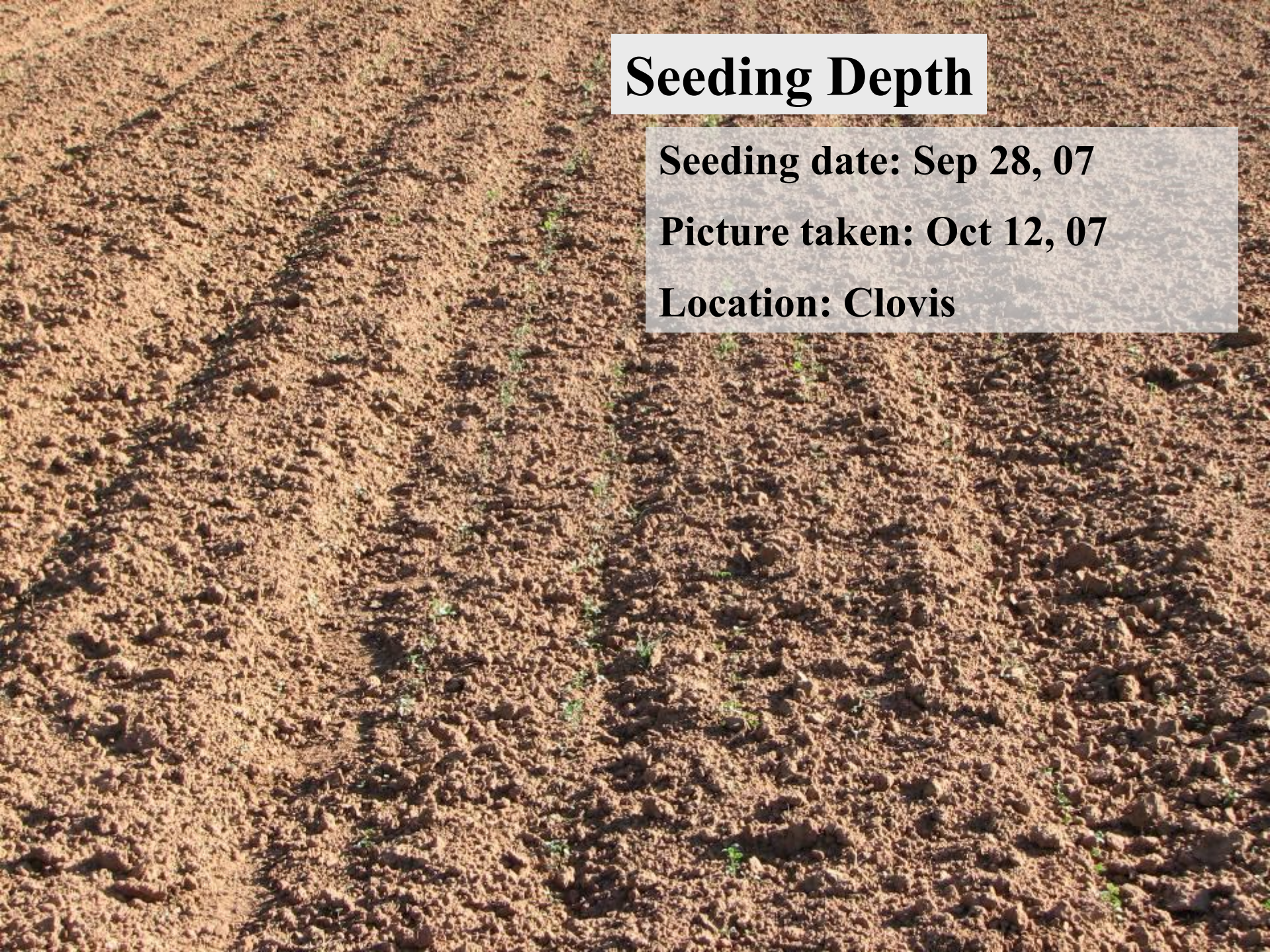
- Oklahoma State/Kansas State canola production guide suggests 9/12-10/6 for Panhandle & 9/15-10/10 for South Plains
- Guide—6 weeks before killing freeze @ 25 F
- That's TOO LATE!! AgriLife Extension suggests last planting date of 9/15 in Panhandle, 9/20 in S. Plains
- October 2007-2009, Hale Co., TX—
  - 9/20, stands good
  - 10/5, mediocre to poor stand
  - 10/18, poor stand or dead plants

# Seeding Depth

**Seeding date: Sep 28, 07**

**Picture taken: Oct 12, 07**

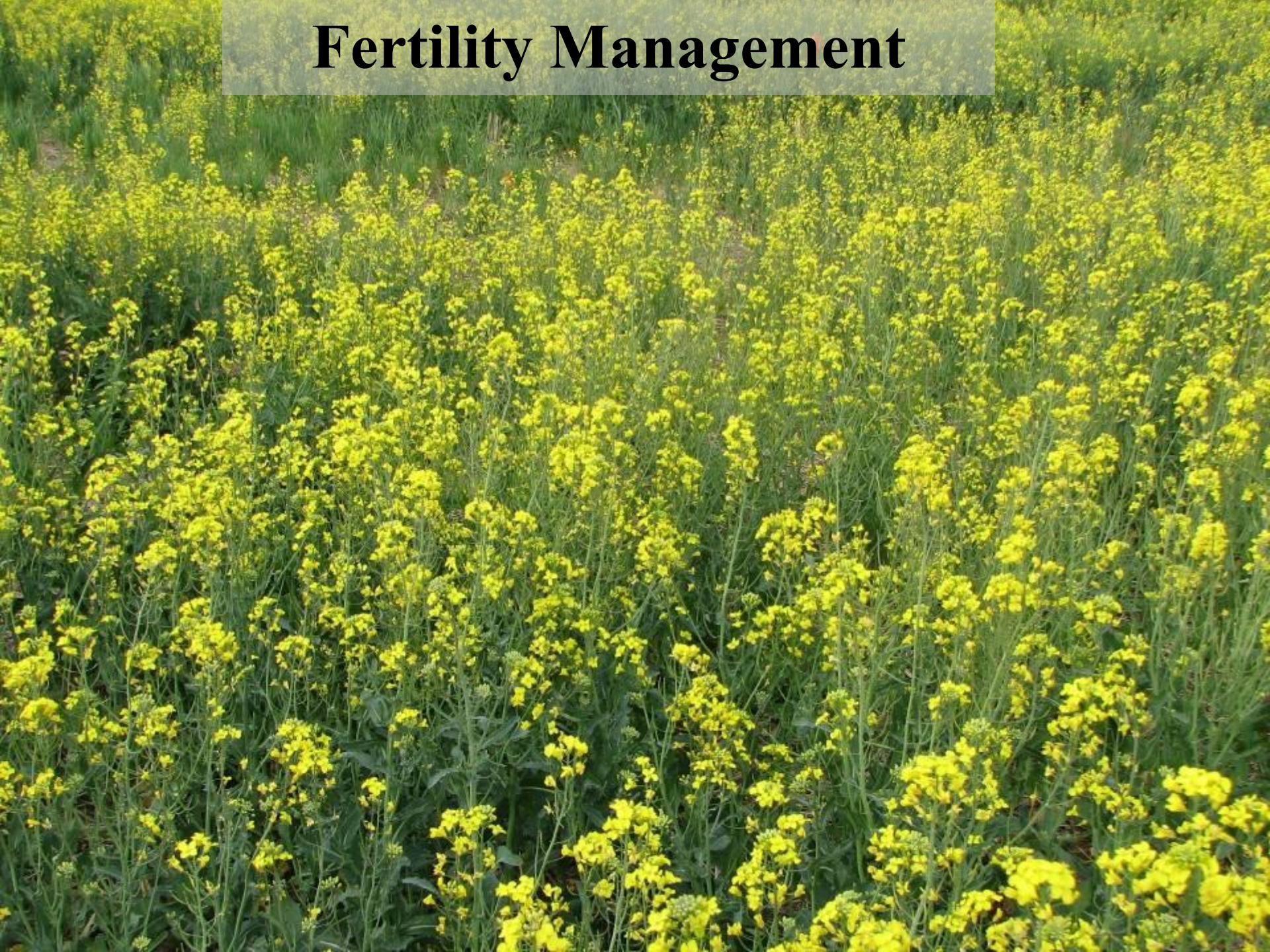
**Location: Clovis**





**Uneven Population**

# Fertility Management



# Fertility Management

- **Nitrogen Requirement**

- **Canola absorbs N early in the season**

- **From Oklahoma State Extension:**

- **$\text{N Rate lbs./A} = 0.05 \times \text{yield goal (lbs./A)} - \text{soil test N (lbs./A)}$**

- **At least 1/3<sup>rd</sup> in the fall**

- **Sulfur Requirement**

- **Canola needs sulfur (S)**

- **Rate: 5% of N requirement**

# Water Management



# Water Management

- **Winter canola needs fall irrigation or rainfall for good establishment**
- **Flowering is the most critical stage for water stress**
- **High temperatures increase the severity of water stress**
- **Canola can recover by continuing flowering after stress is relieved**
- **Late watering can delay maturity and uneven ripening of pods**

# Early “Guesses” at Yield Potential

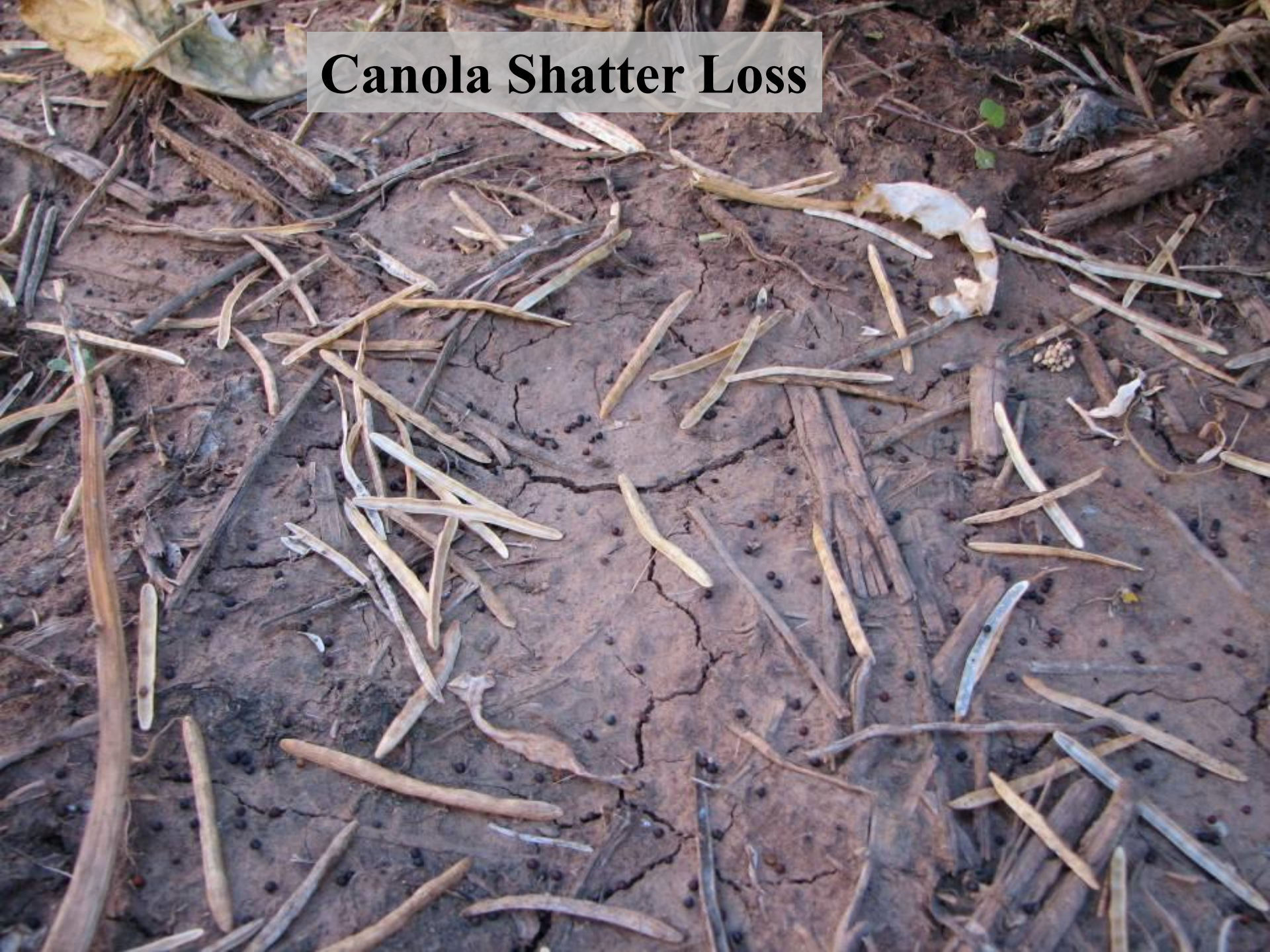
- High Plains dryland—800-1,000 lbs./A
- High Plains irrigated, range of 8-10”, ~2,000-2,500 lbs./A
  - To compete with wheat, yield needs to be higher; **rainfed** canola trial yields in OK range from ~900 to over 3,000 lbs./A (average 2,100)
- Depends greatly on established canola that's fertilized: ~80-85% of wheat on bu/A basis?

# Harvest Management of Winter Canola

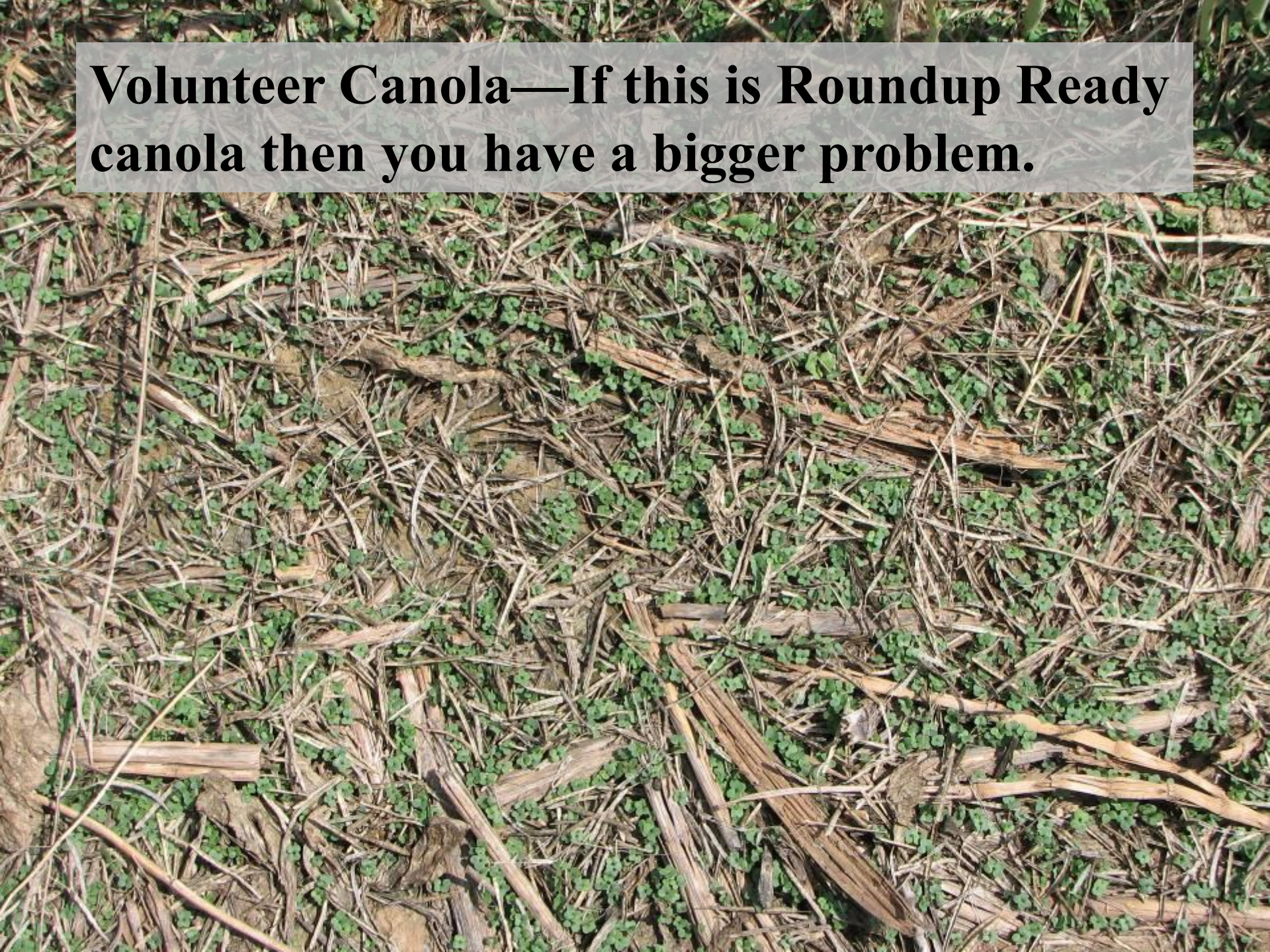
# Direct Combining Canola



# Canola Shatter Loss



**Volunteer Canola—If this is Roundup Ready canola then you have a bigger problem.**



# Swathing Canola



# Harvesting Canola Swath



# Harvest Management

## ■ Direct combine

- Shattering losses
- Narrow window
- Cooler and humid part of the day
- Non-uniform seed filling and green seeds

## ■ Swathing

- An “art” to deciding when to swath--% of black seed
- Less shattering, protect from storms better in windrow
- Wider harvest window
- Uniform seed filling
- Wind problem
- Need extra equipment

# OSU/KSU Farmer Forum, 2008

- Five farmers on the platform—
- “Planting into residue is a problem; clean ground is best.”
- “Need Roundup Ready canola to attack grass/weed issues.”
- “I will never plant another acre of canola without a seed treatment (insects).”
- Most prefer swathing

# OSU/KSU Farmer Forum, 2008

- Significant rotation advantage to subsequent wheat, at least 20% (farmer opinion)
- More fertilizer than wheat, always apply S
- If too dry, plant wheat
- Anticipate spraying for insects at least once
- Not much luck with Select, Assure on grass control (hence RR canola)
- Harvest timing is critical unlike wheat—don't delay