WEEDS OR COVER CROP?
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(PHOTO CREDIT: THERESA PEDRETTI)
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(PHOTO CREDIT: SCOTT SHRIVER)
SETTING THE STAGE…

ORGANIC ROW CROP FARM IN THE UPPER MIDWEST

• Longer winters
• Shorter growing seasons
• Cold / wet springs
• Cold / wet autumns
• Hot summers with potential for drought
WHAT WE WILL COVER (CROP) TODAY!

- Benefits and pitfalls of cover crops
- Five steps to making the leap
- Common species (in the Midwest)
- Sourcing seed
- Research and more information

(Photo Credit: Theresa Pedretti)
SOIL BENEFITS: REDUCE EROSION
SOIL BENEFITS: H₂O INFILTRATION & POROSITY

(PHOTO CREDIT: FRANK GIBBS, CPSS)
SOIL BENEFITS: EFFICIENT NUTRIENT CYCLING

(FIGURE CREDIT: DR. JULIE GROSSMAN AND SHARON PERRONE, UMN AND MODIFIED BY WWW.PIVOTANDGROW.COM)
SOIL BENEFITS:

IMPROVE SOIL HEALTH
OTHER BENEFITS!
POTENTIAL DOWNSIDES

• They get away from you
• They don’t terminate properly
• They grow poorly
• Costly seed / establishment
• Harbor harmful pests or diseases
• Poor timing of nutrient release

FIVE RULES OF BEGINNING WITH COVER CROPS!
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• Rule 1: K.I.S.S.
• Rule 2: Plan your cover crop the way you plan a cash crop
• Rule 3: See it as a long-term investment in your land
• Rule 4: Have a backup plan…or five.
• Rule 5: Manage your expectations
RULE # 1 KISS

- Determine a primary goal / area
- Select a species (maybe two)
- Consider your rotation
- Use the equipment you have (or rent / borrow)
RULE #1 KISS

- Selecting a species
- Determining when / how to plant
- Determining when / how to terminate
- Other factors like nutrient availability or pathogen hosts
RULE # 2

TREAT YOUR COVER CROP LIKE YOUR CASH CROP

Photo Credit: Theresa Pedretti
RULE #3

SEE IT AS A LONG-TERM INVESTMENT
RULE #4 : HAVE A BACK-UP PLAN (OR FIVE)

• Plan to roll / crimp twice
• Cut for green chop forage or let livestock out to graze
• Plow it under as green manure
• Mow it and leave it lay as thick mulch
• Let it mature and harvest for grain
RULE #5: MANAGE YOUR EXPECTATIONS

Expectations: Start → Finish

Reality: Start → Finish, then a complex path before reaching Finish
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COMMON COVER CROP:
WINTER (CEREAL) RYE

- Erosion control, nutrient scavenging, winter cover, forage mix
- Aug 15th to Sept 15th (before November!)
- Drill 1 – 3 bu/ac depending on use
- Spring plow, disc, roller crimp, mow
- Wait two weeks before planting next crop
- Can tie up N – may need to add starter with corn
COMMON COVER CROP:

MEDIUM RED CLOVER

- Biennial N source, soil builder, forage, pollinator crop
- Planted in hay mix, corn at V6, with radishes or grains
- Frost seed, drill, broadcast, overseed
- Mixtures 8 – 12 lbs/ac
- Pure stand 15 – 20 lb (drill) 25 – 30 lb (broadcast)
- Can fix 70 – 150 lb N/ac
COMMON COVER CROP: DAIKON RADISH

- Mustard (Brassica) family
- Soil compaction, nutrient scavenging, forage
- Combine with small grains or red clover
- Drill or broadcast before Sept 15th
- Mixture (3-6 lb/ac) (ideal)
- Drill (8-12 lb/ac)
- Broadcast (12-20 lb/ac)
- Winter kill nicely OR disc or plow in spring

Photo Credits: Theresa Pedretti
COMMON COVER CROP: BUCKWHEAT

- Smother crop, pollinators, green manure
- Fast growing, breaks down quickly
- Frost kills easily, mechanically kill
- 50 – 60 lb/ac (drill)
- Up to 100 lb/ac (broadcast)

Photo Credits: Theresa Pedretti
SOURCING SEED?

(Conventional, Untreated)
Midwest Organic Row Crop Research is top-notch!

Just about every state has an independent, agricultural non-profit that supports organic farmers
THANK YOU!

Photo Credit: Scott Shriver

Photo Credit: Cooper Brossy