

Transforming Organic Agriculture

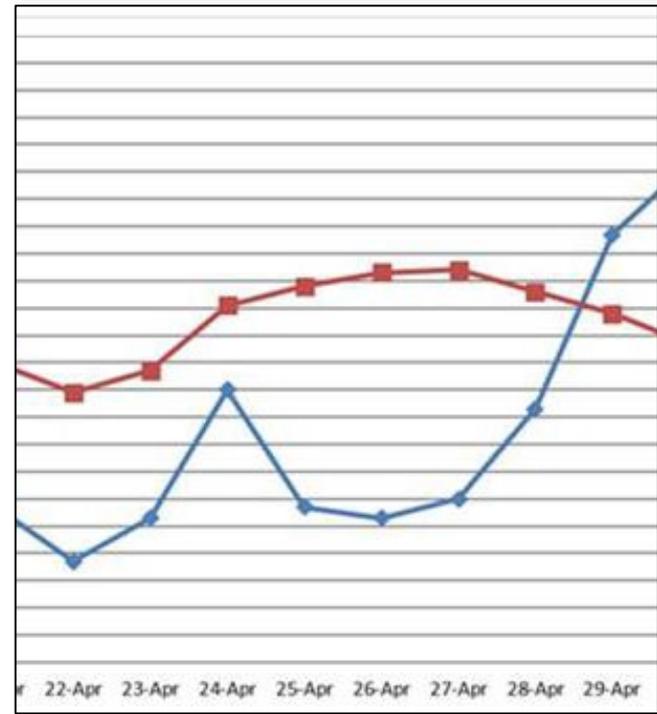


Preseason – Pre-Plant to Canopy Field Work

March 7, 2019

Planting Rules of Thumb

- Watch your weather
- Soil preparation
- Waiting game soil temperature & moisture
 - Less tillage
 - Eliminate first round of weed germination
- Seeding 10% more to account for emergence & tillage
- Level field post plant



Organic Corn – Pre plant to Canopy



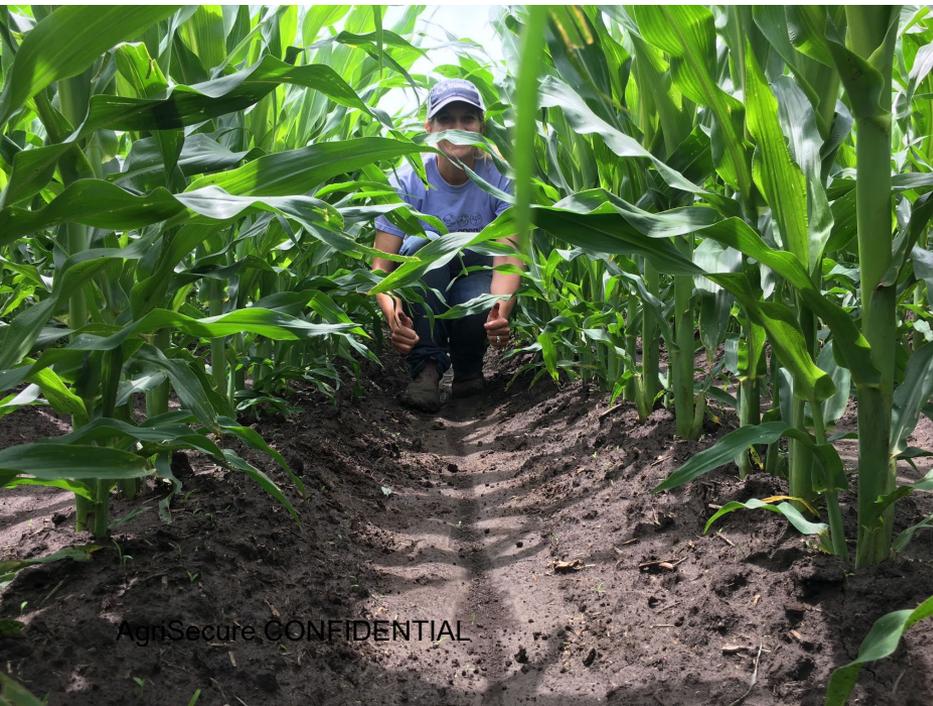
- Crop management on row crops is similar
 - Post planting field is level
 - Stay proactive: plan on being in the field every 3-5 days during the early stages
- Soil movement within the row is **extremely** critical
- Find the point of failure and then back off slightly
- Speed is critical, travel as fast as possible





In-Row Results

- Tine weeding prior to emerge
- Rotary hoe at emergence
- Rotary hoe or tine weed 1-4 leaf stage
- Begin cultivating as soon as possible:
 - First to loosen soil
 - Throw soil
- Foot print in row is important
- Use caution with side shields
- Consider spreading cover crops on last cultivation pass



In Field Results

- Identify and eliminate stresses to increase chances of healthy crops
- Weeds & soil imbalance brings disease & insects
- Hard to feed Macros to crop in season – work to apply OMRI approved sources of NPK in the off season





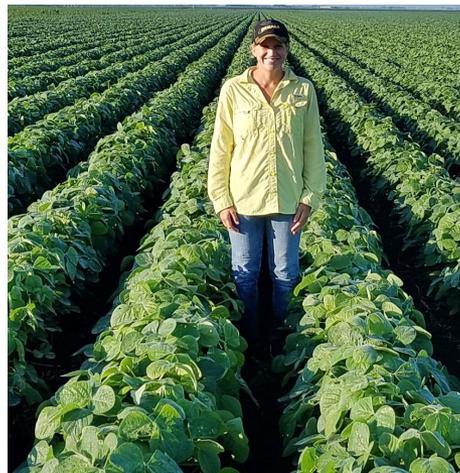
Organic Soybeans: Pre-plant to Emergence

- Be ready for full court press!
- If possible, leverage a “pre” cover crop
- Allelopathic effect: biological phenomenon by which an organism produces one or more natural biochemicals that influence the germination, growth, survival, and reproduction of other organisms
- It’s never too early to start proactive passes

Soybeans – Post Emergence to Canopy



- Stay proactive - require frequency
- Multiple modes of action
- Ensure soil disruption between each plant on every pass
- Interlace tillage options
- Weeds create a compounding effect especially pigweed
- Make sure you have the time and are up for the challenge



Field Peas: Preplant to Flowering

- Plant as early as possible
- Frost line target – 8" below surface
- Inoculate for N fixation
 - Liquid inoculant is recommended
 - Double inoculant with dry peat moss is the best alternative
- Drill at least 400-475 thousand per acre, lodging will occur at higher populations
- Consider Cross Hatch Pattern
- Flower and pod set occurs quickly so try to eliminate stress by (a) keep the plant cool and (b) irrigating during flowering, if possible
- Scout to ensure disease and insect pressure is low



Yellow Field Pea – Harvest & Storage

- Be ready to harvest end of June/July
 - Clean vs. weedy peas are only separated by days, not weeks
 - Harvest above desired moisture
 - Watch weather
- Harvest shatter is minimal due to viney plant structure
- Swathing can be an option
- Storage consider using low temp heaters for drying assistance



Hard Red Winter Wheat: Pre-plant to Spring

- Use caution in rotations that have wheat following corn
- Fusarium can overwinter in corn residue
- Research available varieties
 - Maturity
 - Disease resistant
 - Winter hardiness
- Planting rate = 100-130 lbs/acre
- Plant as soon as possible in the fall
- Crop insurance deadline is October 15
- Want germination to occur in winter - desire 4-8" of growth prior to dormancy



Hard Red Winter Wheat: Planting

- Consider spring rotary hoe or tine weeder passes
- 10 days above 40 degrees should eliminate dormancy
- Sensitive to weather
- Leverage OMRI approved fungicides
- Strip rust and head scab can be present – especially in central to southern NE
- Contract prices are typically tied to quality



Alfalfa – Transition or Organic

Seed Bed Preparation

- Double disk + Field cultivation to achieve 30-45% crop residue (e.g., corn stalks) as excessive residual will result in emergence problems
- Level and firm seed bed is a must

Seed and Treatment

- Research varieties for disease package, winter hardiness, pest tolerance
- Seed coating and inoculants are highly recommended, and there are several OMRI listed options available (e.g., Apex Green, Nitragin Gold)
- If planting raw seed increase seeding rate by 10 – 15% over standard

Seeding Rates / Equipment

- **Seed Rates** - 16 - 20 lbs./a coated seed, 20 - 24 lbs./a raw seed plus 1.0 – 1.5 bushel of nurse crop oats
- **Drill** - 7.5" Spacing, do not to exceed 0.5" seeding depth, roller pack post drilling
- **Broad cast + harrow** - dry speeder box or Terragator Air Machine
- **Cultipacker + Air delivery** - Farm Hand UltraMulcher + ValMar



Seed Bed Preparation



Planting Alfalfa with a Drill



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Questions?

Reach out to your Account Executive today!