

## **Paired 60” corn row cover crop meeting**

### **Coteau des Prairies Lodge on April 9<sup>th</sup> @ 11:00 AM**

In attendance (off email list): Matt Olson, Patrick Rohloff, Mark Gainor, Nick Toussaint, Seth Nelson, Jeff Breker, Doug Toussaint, Greg LaPlante, Joe Breker, Brad Toussaint, Jacob Breker, Greg Breker, and Eugene Breker.

Joe started the meeting and went around the room and everybody introduced themselves. We then watched a couple videos to start some back and forth discussion on how to do paired 60” corn rows with cover crops. The first video was put together by Strip-Till magazine and the second was a video of Jack Boyer discussing his firsthand experience with implementing 60” corn. Below are the links for those videos.

<https://www.youtube.com/watch?v=MvZQ7HI9Ofw>

<https://www.youtube.com/watch?v=rK5a60RRsHo>

Below are a few interesting bullets from the video.

- 60” corn rows do not decrease yield
- You do not need to increase/decrease the planting population
- With the increase in open canopy space, you are more susceptible to weeds
- 10 X the biomass produced with cover crops on 60” rows
- 10 X the Nitrogen uptake with cover crops on 60” rows

Then discussed questions to “research” during implementation

- Orientation of rows (N-S / E-W) - Higher chance of green snap/lodging on N-S, E-W paired row may get reduced sunlight on one row due to shading
- Corn plant type/genetics - Palm tree shape vs. Pineapple shape
- Cover Crops that may benefit corn
  - Disease - “Mighty Brown Mustard” decreases Soybean Cyst Nematode (Marisol)
  - Insects - Lacewings eat 100+ corn borers/day; buckwheat increases lacewings
  - Fertility - In studies N was put on entire field; look at opportunities to target N more towards the corn
  - Water Use - Use cover crop mix to utilize lots or little amounts of water
  - Weed Control - Design cover crop mix to establish and compete early
  - Grazing Value - Added benefit of cover crop for forage

Moved onto cover crop mix exercise. Group will make 3 mixes with at least 5 species in each mix to accomplish a specific goal. Utilized cover crop chart to select species.

Link to Cover Crop chart: <https://www.ars.usda.gov/plains-area/mandan-nd/ngprl/docs/cover-crop-chart/>

1<sup>st</sup> mix created was a Ground Cover Mix to reduce early weed pressure

- Oats - cool season grass
- Cereal Rye - cool season grass
- Mustard - cool season broadleaf
- Alfalfa - cool season legume
- Buckwheat - warm season broadleaf
- Teff - warm season grass

2<sup>nd</sup> mix created was an Aftermath Grazing mix for grazing value after harvest

- Cereal Rye - cool season grass
- Radish - cool season broadleaf
- Turnip - cool season broadleaf
- Brassica (Winfred &/or Hunter) - cool season broadleaf
- Pea - cool season legume
- Grain sorghum - warm season grass
- Sorghum Sudan - warm season grass
- Pearl Millet - warm season grass

3<sup>rd</sup> mix created was a Bug Mix designed to increase pollinators and beneficial insects

- Cereal Rye - cool season grass
- Radish - cool season broadleaf
- Camelina - cool season broadleaf
- Phacelia - cool season broadleaf
- Mustard (Brown &/or Yellow) - cool season broadleaf
- Pea - cool season legume
- Faba Bean - cool season legume
- Alfalfa - cool season legume
- Crimson Clover - cool season legume
- Sweet Clover (If there is an annual) - cool season legume
- Buckwheat - warm season broadleaf
- Teff - warm season grass

## Discussion Items on Implementation

- On 30" twin row planter; turn off odd or even numbers w/ 6-7" between twins
- Use caution when turning around w/ planter; use offset to account for adjustments
- Cover crop interseeding around V3 - V5 stage
- Utilize John Deere No-Till Drill for seeding cover crop
  - Clearance is roughly 14" tall
  - Turn off every 8<sup>th</sup> tube (each one is ~7 ½")
- Possible thought of modifying Amity Interseeder for select locations