

# **2017 Research Report**

# **Center for Excellence: Interim Report**



Primary funding sponsors for the 2017 Center for Excellence (CfE) Field Day were Corn Marketing Program of Michigan, Michigan Soybean Promotion Committee, and Michigan Wheat Program. Tom VanWagner, Center for Excellence coordinator, organized and provided technical assistance for the project. The following tasks were completed by the Lenawee Conservation District staff for the 2017 Center for Excellence Field Day:

- Met with the CfE committee and sponsors at GreenStone Farm Credit Services on February 22, 2017 to plan the 2017 CfE
  - Input was provided by the committee and sponsors for future test plots and programs for the August 9<sup>th</sup> Field Day
  - Lead sponsors from the CfE are: Michigan Corn Marketing Program of Michigan, Michigan Soybean Promotion Committee, and the Michigan Wheat Program
- Local sponsor request letters were mailed on April 30, 2017
- 31 local sponsors committed over \$15,250 cash funds. Additional sponsors provided in-kind products or services for the 2017 Field Day.

#### **2017 Center for Excellence Plots**

The 2017 crop year began in the fall of 2016 making us well into our 21<sup>st</sup> year of Excellence for Center.

#### **Cover Crops and Tillage**

Last fall all cropland fields at the Bakerlad Farms had cover crops applied with the High Boy Cover Crop rig and Tim Stutzman at Raymond and Stutzman Farms seeded tillage radish in wheat stubble for 2016 cover crop and soil health plot work.

#### Wheat Plots

Nitrogen management was the targeted plot work. Replicated plots of nitrogen application was done comparing straight rate of 30 gallons of 28% compared to using OptRrx sensors applying nitrogen based on crop need per yield goal. There were six plots planned but due to the weather several producers became nervous and applied their own N. Two plots of the six were salvaged. Data from the plots will be analyzed and published later this early fall and to be

presented at crops day in January 2018. We plan to have several plots for N management in wheat again for 2017-2018 crop years. Data on the influence on growing wheat in rotation and then on influence of corn and soybean yield. Again, this data will be presented at the next crops day in January of 2018

# Center for Excellence on the Road

Six wheat plots were scheduled for nitrogen management the spring of 2017 but due to weather only one center on the road wheat plot was salvaged.

There was zero strip-till plots implemented this past fall under this program.

# **Conservation Tillage Plots**

All of the corn and soybean tillage plots were planted on time this year. The tillage systems are strip- till, vertical tillage, disk-ripping and no-till. All were cover cropped in the fall of 2016 and all tillage was done in the fall followed by secondary tillage in the spring.

# Drainage Water Management

Funding was limited on the water sampling at the Raymond and Stutzman farms. Grab samples were taken in crop year 2015 but flow data was difficult to take and many times outlet pipes were submerged. The Center is working towards having automated samplers installed at the Bakerlads Farms and or other farms located in the Blissfield, Michigan area.

# 2017 Bakerlads Farm Plots

#### CORN

- Replicated tillage demonstration projects comparing DISK RIPPING, NO-TILL, STRIP TILLAGE, VERTICAL TILLAGE
- Nitrogen management in corn using the OptRrx sensor at V4 compared to OptRx sensor at V-10 stage.
- Overseeding corn with different cover crops: Radish 6 lbs./ac, Crimson Clover 12 lbs./ac and Annual Ryegrass at 22 lbs./acre were seeded at V2 stage and V5 stage of corn. Plot was no-till corn sprayed with 2-4-D and round-up early to kill cover crop followed by pre-plant herbicide of Verdict for early broadleaf control. Cover crops over seeded at V2 (06-17-17) stage then same cover crop overseeded at V5 (07-28-17) stage as planned.

#### SOYBEANS

- Replicated tillage demonstration projects comparing DISK RIPPING, NO-TILL, STRIP TILLAGE, STRIP TILLAGE with POTASH in STRIP, TURBO-TILL.
- SMART Strip Trial-Mike Staton; Roller pre-emerge and at R3 stage of soybean growth
- Biological seed treatment of soybeans with growth promoters verses no treatment (quick roots)
- Extend soybeans( Dicamba ) for marestail and other perennial weeds becoming round-up resistant

#### 2017 Raymond and Stutzman Farms, LLC Plots

#### CORN

- Strip-Till comprared to No-till plot RADISH COVER CROP
- Nitrogen management of corn using Y Drops at V-10 stage with OpTRx GPS sensor as compared to computer model developed with YIELD 360.
- Quickroots: Tim at McMunn Farm: North quick roots along road then alternate 60 foot of non-verses quickroots.

#### SOYBEANS

- Foliar feeding of soybeans
- 2017 LiberateCa Trial: in furrow application of calcium for soybeans

#### WHEAT

- Nitrogen application straight early application 40 unit's follow-up just prior to boot stage with straight rate of 30 gallons verses optrx.
- Tim Stutzman: fungicide plots with verses no fungicide.

#### **Additional Projects**

- WASCOB
- Blind Inlet
- Saturated buffer installed at Bakerlads Farm
- In-stream P filter installed at Bakerlads Farm
- Forestry Management Session at Bakerlads Farm
- Field edge runoff and tile automated water samplers

#### 2017 Field Day

- Posters advertising the Field Day were printed and distributed to Agri-businesses in Lenawee, Monroe, Jackson, Hillsdale, and Washtenaw Counties in Michigan and Fulton County in Ohio.
- Invitations were mailed on June 27, 2017 to past Field Day participants and emailed to all NRCS and District staff in Michigan.
- Public service announcements were sent to the media.
- Details for CfE Field Day were finalized by the end of July. Arrangements were made for the noon speaker, guest speakers, tents, food, etc.
- CfE Field Day was held on August 9, 2017. Over 350 people attended.
- Guest speaker for the lunch hour was Laura Campbell, Manager of Ag Ecology Department with Michigan Farm Bureau
- 4 RUP and 6 CCA credits made available for producers. It was also an approved MAEAP Phase 1 meeting.
- CfE Crops Day meeting is scheduled for January 5, 2018 at The Centre in Adrian.
- "Garage of Knowledge" educational sessions have been and will be scheduled to provide water quality information.
- Tom attends several agricultural education programs/opportunities in other states to make contact with speakers to engage in Field Day and Crops Day.



Research reports for all projects funded by the Corn Marketing Program of Michigan are available online at www.micorn.org.