

Views from VanDeWalle

Brandy VanDeWalle, Extension Educator in Fillmore County

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Innovative Youth Corn Challenge

One of the statewide projects I coordinate engages youth in crop production so I decided to share the results of this program. Nebraska Extension and the Nebraska Corn Board teamed up to offer the fourth *Innovative Youth Corn Challenge* contest. This contest, open to 4-H members or FFA members, guided participants through all aspects of corn production, as well as agricultural careers related to corn production.

The 2015 winning team was Kornhusker Kids 4-H Club from Cuming County. The team with the highest percent yield increase over their local county average is the winner. In earning the \$1,000 first-place award, Kornhusker Kids 4-H Club decided to test the effect of Procidic with two different application timings to see the effect against Goss's Wilt and if there were additional plant health benefits. The three treatments were: control, Procidic applied in furrow at planting at 2 oz/ac and Procidic applied in furrow at planting followed by another 2 oz applied post prior to tasseling. Also, important to note is that this team had randomized and replicated plots which is important in figuring out the statistical significance. Their check yielded the highest at 226.7 bushels/acre with the challenge plots yielding 225.4 & 223.7 bushels/acre.

Second-place team overall was the Palmyra FFA Chapter, earning \$500 for their efforts. Team members tested the impact of corn sweetener being applied to the corn plant between the V-6 and V-12 stage of development. They sprayed a foliar application of corn sweetener on the growing corn plant with the challenge plot yielding 214.2 bu/acre and check plot yielding 205.3 bu/acre.

Third place went to the Fillmore Central FFA Chapter. They tested nitrogen application rates and tried to push for a higher yield in order to reach the highest potential of their corn variety. They learned that 29.8 pounds of more nitrogen resulted in 14 more bushels per acre with 207.3 pounds of N on their challenge plot yielding 278.2 bu/acre and the check plot with 177 pounds of N yielding 264.2 bu/acre.

Other teams who completed their plots were:

Norfolk FFA did a two pass system, the first pass putting on 65 pounds of nitrogen and the second pass putting on 75 pounds of N and a nitrogen stabilizer to minimize nitrogen loss due to leaching in sandy soils. The main innovation testing was comparing early season fungicide application to no fungicide application. Their challenge plot yielded 191.5 bushel/acre and check at 183.3 bu/acre.

Osceola FFA tested nitrogen application with the check plot of 210 lbs of N at planting and the challenge plot of 210 lbs/acre in addition to 45 pounds of N applied at pre-tassel. Their check plot was 243.5 bushels/acre and challenge was 244.7 bu/acre.

The Stuart FFA Chapter's goal was to improve the yield of corn by adding the AEGIS ESR plant growth stimulator. The product was applied to corn at V-6. They also measured the amount of water in the cornfield using watermark sensors. They determined that the growth stimulator did increase yield as anticipated, as the challenge plot with AEGIS yielded 5 bushels higher at 230 bu/acre compared to 225 for the check plot.

As a team, youth worked with an adult mentor throughout the process. Mentors can be extension faculty, ag teachers, or other qualified agronomy professionals. Other awards handed out during the banquet held on UNL's East Campus included:

- The Extra Mile Award, worth \$200, went to the Kornhusker Kids 4-H Club.
- The Innovation Award, worth \$200, was presented to the Palmyra FFA Chapter.
- The Sustainability Award went to both Kornhusker Kids 4-H Club and Fillmore Central FFA Chapter, which will split the \$200 award.

The Sustainability award which uses Field to Market's Field print Calculator was added this year, led by Randy Pryor, Extension Educator in Saline County. Field to Market, the alliance for sustainable agriculture has grown to 87 members. This group contains multiple fortune 500 companies involved in the nation's food chain, national farm groups, conservation groups and Nebraska Extension is a new affiliate member. The diverse group is all about defining, measuring and advancing sustainability in the food sector from the farm field to the retail level. The current version of the Fieldprint Calculator is free to use, and these youth were the first 4-H and FFA students in Nebraska to ever use the Fieldprint Calculator for sustainability measures.

The metrics used were:

- Land use efficiency
- Soil conservation
- Soil carbon
- Irrigation Water Use Efficiency
- Water Quality Index
- Energy Use Efficiency
- And Greenhouse Gas Emissions.

To participate in 2016, youth must complete and return an entry form by March 15th to the Fillmore County Extension Office in Geneva, NE. Forms can be downloaded at cropwatch.unl.edu/youth/activities.

Area Private Pesticide Certification Programs:

Feb. 17: 9:00 a.m., Fairgrounds, York

Feb. 17: 2:00 p.m., Fairgrounds, Geneva

Feb. 18: 9:00 a.m., Fairgrounds, Geneva

Feb. 23: 6:30 p.m., Fairgrounds, York