

December 19, 2019

LESSONS LEARNED FROM TAPS

This past week I attended the UNL-TAPS program banquet in North Platte. TAPS stands for Testing Ag Performance Solutions. TAPS is a farm management competition bringing together scientists, producers, industry professionals, and students to promote efficiency and profitability. Developed by University of Nebraska-Lincoln research and extension specialists and educators, TAPS just finished its third year and will begin a new competition for 2020 based on feedback of participants.

In the Gage-Saline County area we had two teams in this competition this year that farmed in the Beatrice Wellhead area including a couple NRD employees, Paul Hay and myself. Our local teams were two of 24 that competed across Nebraska making decisions under a variable rate pivot at the UNL research station.

Basically there are six different decisions that the teams made. These decisions included: crop insurance selection; hybrid selection; irrigated corn planting density; marketing strategy; irrigation scheduling and quantity; and fertilizer timing, amount and method. The participants obtained information relevant to their three replicated plots equal to about a half of an acre total. Sponsors of the program allow users to login and obtain information about their crop via the internet. In 2019 that included: AirScout, Aquaspy, Phytech, Farmers Edge, Arable, Terravion, DTN (included a DTN weather station at the site), Climate FieldView and Nebraska Extension Articles and Tools. Participants had pictures of the crops, soil sample information and foliar samples. Our two teams installed watermark sensors on our own for enhanced irrigation management to study that alongside the Aquaspy and Phytech technology. In North Platte, this year, it rained over 20.2 inches during the growing season, May 1 to September 30, which is rare. People that did a marketing strategy in May this year fared much better, especially compared to those teams that marketed a lot of bushels cash off the truck in the fall. Hindsight is easy to say now and crop insurance allows us to use multiple pricing strategies with reduced risk.

Speculation was not allowed and teams marketed on paper 3,000 acres of corn with an average expected yield of 225 bushels per acre. There were five methods to market including spot cash sales, forward contracting, basis contract with delivery at harvest, simple hedge to arrive with no rollover and futures contracts with set rules.

The 24 teams chose 15 different hybrids and the minimum planting population chosen in 2019 was 29K to a maximum of 35K averaging 32,771 plants per acre. The cost of seed selected varied from \$77 to \$118 per acre averaging \$100.

Nitrogen fertilizer applied range from 140 to 270 lbs per acre. More typically the irrigated corn on soybeans rotation field was 160 to 190 lbs per acre applied. All of the teams used the pivot to apply nitrogen one or more times besides a preplant application. The total cash cost production expense varied between \$627 to \$750 per acre.



The yields varied from 193 to 241 bushels per acre or a spread of 48 bushels per acre depending what corn variety you chose along with the management used! That is not unusual. We see this kind of spread or more in the Southeast Corn Growers plots every year with the same management used. The net income varied from \$57 to \$293 per acre. The team I was on was middle of the pack netting \$115 per acre. Our team could have saved some expenses by irrigating one inch less and not applying that last 30 lbs of nitrogen through the pivot. We should have booked more \$4.00 corn. Being able to gauge better in season fertilizer needs and water demand is key to increasing profitability as well as choosing the right hybrids for the environment they are placed. The final report is not done yet but will be posted on the web. For more information about TAPS go to: <https://taps.unl.edu/>

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