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Dean's Column by Ron Rosati, PhD

NCTA students, crops and machines

CURTIS, Neb. - Agronomy, agricultural mechanics and urban agriculture are areas featured this week in our four-part series about academic divisions at the Nebraska College of Technical Agriculture.

Brad Ramsdale is the chair of the Agronomy and Agricultural Mechanics Division of Agricultural Production Systems. Dr. Ramsdale also coaches the NCTA Crops Judging Team which won the 2017 National Championship among 2-year colleges.

Division faculty also include Dan Stehlik, agricultural mechanics instructor, and John Porter, assistant professor of Urban Agriculture, based in Omaha.

The NCTA agronomy program prepares students to produce and improve food/feed crops while sustaining soil and water resources essential for crop production. Students are fortunate to learn at a 550-acre campus farm and field laboratory equipped with state-of-the-art irrigation pivot systems and precision ag technology.



Agronomy professor Brad Ramsdale discusses seeding rate and grain drill calibrations with NCTA students at the college farm. (Craig Chandler / University Communication Photo)

Students can earn an Associate of Applied Science degree in Agricultural Equipment Management, Agronomy Industry Management or Diversified Agricultural Management.

The Nebraska Agriculture Industry Education Center houses agronomy classrooms and labs. Students gain experience at the NCTA Farm, outdoor crops laboratory and through study tours of Nebraska employers and industries.

Our mission of educating students in agriculture emphasizes career-readiness through experiential learning such as in the combine harvesting a crop, or making management decisions in the crop practicum. Students select crops, manage fertilizer and chemical applications, and irrigation decisions. The NCTA Crops Practicum is unique for Nebraska colleges with the benefit of an operational, commercial-size farm, irrigation systems, and equipment and technology resources of our rural campus.

Diversified ag majors have hands-on work with the campus cattle herd and feedlot, horses, swine and other livestock. This extensive exposure in a strong multi-academic program pays dividends for employees headed to crops and livestock enterprises, or for beginning farmers in their own operations.

Irrigation Technician and Agricultural Chemical Application are popular 1-year certificate programs for technical training and job-readiness. Demand is great at irrigation companies and ag cooperatives. In Ag Equipment Management, the students gain work-ready skills to become welders, ag chemical applicators, ag equipment sales or service, and irrigation technicians.

Facilities include a fully-equipped welding lab for multiple courses in welding and fabrication. Students are able to take courses to prepare for American Welding Society certification exams.

A second laboratory building houses courses for small engines, diesel engines, hydraulics, preventative maintenance and more. A third shop features an operational miniature center pivot system with towers, gear boxes, electrical aspects for the mechanized irrigation systems courses. Instructor Stehlik teaches AC and DC circuit analysis in electricity courses which support the Irrigation Technician program.

Aggie students who plan to transfer to a four-year college will graduate from NCTA with an Associate of Science degree. With careful planning during their first two years of study, they should experience a seamless transfer to our sister institution, the College of Agricultural Sciences and Natural Resources (CASNR) at the University of Nebraska-Lincoln.

Online courses also are available through dual credit programs with some Nebraska high schools in Ag Chemical Application and Ag Academies. These credits all apply toward an NCTA degree if students further their studies as fulltime students.

In Omaha, the Cooper Farm Urban Agriculture Education Center is based at the Omaha Home for Boys. There, John Porter leads programs in a partnership between Nebraska Extension and NCTA.

Additionally, NCTA horticulture classes are offered in a transfer program to UNL and are taught by Tee Bush, associate professor of mathematics and horticulture. She also sponsors NCTA's Horticulture Club.

Division clubs also include Crops Judging Team and Collegiate Farm Bureau with Dr. Ramsdale, sponsor, and NCTA Collegiate 4-H & FFA with Dr. Doug Smith, Animal Science/Agricultural Education, chair, as sponsor.

A measurement of success for NCTA students is how well the Aggies perform in academic enhancement competitions with their peers from other campuses. Each spring, NCTA sponsors students in individual and team events at the conference of North American Colleges of Teachers in Agriculture (NACTA).

In 2017 NACTA events at Manhattan, Kansas, NCTA Aggies were Overall Reserve Champions for 2-year colleges with championship teams in Crops Judging, Precision Agriculture, and the multidisciplinary "Knowledge Bowl." Results for Agronomy and Ag Mechanics students included:

Crops Judging – Team Champions

John Paul Kain, McCook, 1st place judge, High Lab Practical, High Identification, High Agronomic Exam

Vincent Jones, Kirwin, Kansas, 2nd place judge

Maggie Brunmeier, Bayard, 3rd place judge, High Math Practical

1st Place Team Members: Kain, Jones, Brunmeier, and Brent Thomas of Alliance

Precision Agriculture - Team Champions

Vincent Jones, 2nd place individual

John Paul Kain, 4th place individual, High Harvesting

Team Members - Jones, Kain, Will Kusant of Comstock, and Lee Jespersen of Hemingford.

Horticulture - Andrea Burkhardt, Winnetoon, 2nd place individual

Knowledge Bowl – Team Champions

Andrea Burkhardt, horticulture, Braden Wilke, diversified agriculture, and John Paul Kain, agronomy, were three of the five team members.

Also in 2017, eight students in NCTA's Horticulture Club traveled to Provo, Utah for the National Association of Landscape Professionals conference.

The NCTA Team of Heath Buchanan, Douglas; Andrea Burkhardt, Winnetoon; and Alyssa Novak, Eldorado, placed 16th among 57 collegiate teams.

For additional information on any of these NCTA programs in the Agronomy and Agricultural Mechanics Division see: <https://ncta.unl.edu/academic-programs>, or contact Brad Ramsdale at (308) 367-5225 or bramsdale2@unl.edu.

NCTA Mission:

The Nebraska College of Technical Agriculture is devoted to a statewide mission of preparing students for successful careers in agriculture, veterinary technology, food and related industries. The college provides open access to innovative technical education resulting in associate degrees, certificates, diplomas and other credentials.

See online article: <https://go.unl.edu/4brp>

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