



Dickinson Research Extension Center
Vo-Ag Student Workshop
September 15, 2014

PROGRAM

9:00-9:30 Arrive at the DREC Ranch Headquarters, Refreshments

9:30-9:45 Students divide into 3 groups:

Caravan to Section 19 in school buses for the morning concurrent sessions

Rotation Times: #1 (9:45-10:15), #2 (10:20-10:50), #3 (10:55-11:25), #4 (11:30-12:00)

Topic 1 – Forage Quality and Digestibility

Dr. Chip Poland, Department of Agriculture and Technical Studies, Dickinson State University

Forages are the most important feed for both wild and domesticated ruminant animals. Compared to feed grains (corn, barley, oats, sorghum), forages are bulky, fibrous, vegetable material whose nutrient quality and digestibility can vary widely. The differences in forage quality of some feed samples will be described and students will rank several different forages for their nutrient quality and digestibility.

Topic 2 – Soil Organisms and Organic Matter: What's the Connection?

Dr. Josh Steffan, Assistant Professor, Dept. of Natural Science and Dept. of Agriculture and Technical Studies, Dickinson State University

Soil isn't dirt. Dr. Steffan will provide students with an understanding of how organisms in the soil make essential plant nutrients available to the plant and even help plant roots absorb nutrients. Components of an integrated crop rotation with livestock and cover crops will be the foundation for the session. Indicators of healthy soils will be demonstrated.

Topic 3 – Using Drones in Agriculture Production

John Nowatzki, Agricultural Machine Equipment Specialist, North Dakota State University, Fargo, ND.

Drones have caught the interest people in many facets of our society and the use of drones in agriculture is far reaching. This session will provide useful insight into the many ways that drones can help increase agricultural efficiency.

Topic 4 – Rain Simulator Demonstration
NRCS personnel from the Baker, MT office

Sun, water, organic matter, and microbes in soil support all plant and animal life. This demonstration will demonstrate how soils from different land management practices react when rain is applied. Soils demonstrated will come from native range, chemical fallow, crop rotation, and cover crop.

12:00-12:45 **Lunch will be provided by the Dickinson Chamber of Commerce**

Topic 5 – What are the Benefits of Using Beef Cattle Ultrasound?
12:45-1:20 Songul Senturklu, Visiting Research Scholar, Canakkale Onsekiz Mart University, Turkey and Doug Landblom, DREC Beef Cattle Specialist

During judging workouts, have you ever wondered what size ribeye muscle a steer has; or pondered how much fat an animal really has? Or, perhaps, as you looked at a heifer you wondered what her potential for muscling might be as a herd replacement? Ultrasound is a powerful tool that is used extensively in human and animal medicine, and it is used routinely for fetal age determination and live animal evaluation of bulls, steers and heifers. Students will learn about the some of the practical beef cattle applications that use ultrasound and students will be given the opportunity to collect an ultrasound image during the session.

Students will caravan in their school buses to topic #6 (1:20 – 1:30)

Topic 6 – Range Plant Identification
Kevin Sedivec, NDSU Extension Range Specialist

1:30-2:15

The range plant identification session will be a practice session for the upcoming contest. Kevin will set up the sites, provide instructional training, and judge for the group.

Leave for Home

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