Dickinson Research Extension Center
Vo-Ag Student Field Day
September 6, 2012

PROGRAM

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

9:30-10:00   Draft Horse Harnessing Demonstration – Garry Ottmar, DREC Ranch Manager
will demonstrate draft horse harnessing

10:00-10:15   Students will divide into 3 groups for morning concurrent sessions:
Rotation Times: #1 (10:15-10:45), **#2** (10:50-11:20), **#3** (11:25-11:55)

Topic 1 –   Beef cattle frame score: What do we mean by the term "Frame Score" and why is
it important? – Dr. Kris Ringwall, DREC Director

The dynamics of the beef cattle industry are always changing. Dr. Ringwall will
talk about how a given animal's frame score is determined and ways that frame
score measurements are used to describe different types of cattle. Using beef cattle
of different frame score, Dr. Ringwall's demonstration will define the economic
importance of frame score as it relates to beef cattle profitability.

Topic 2 –   Forage Quality and Digestibility – Dr. Chip Poland/Mr. Toby Stroh, 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.
These two educators will demonstrate the differences in forage quality of several
feed samples and students will rank several different forages for their nutrient
quality and digestibility.

Topic 3 –   Ultrasound Animal Evaluation – Songul Senturklu, Turkish Scholar, Canakkale
Onsekiz Mart University, 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 both steers and heifers. Students will learn about the some of the

practical beef cattle applications that use ultrasound and an example using ultrasound for heifer selection will be demonstrated. If time permits, students will collect some ribeye and intramuscular fat images.

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

The topics after lunch are not concurrent. Students will caravan in their respective school buses to topics 4 and 5.

Topic 4 – Soil Organisms and Organic Matter: What's the Connection? – Eric Brevik,
12:45-1:30   Chairman, Dept. of Natural Sciences, Dickinson State University

Soil isn't dirt. Dr. Brevik 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 and integrated crop rotation with livestock and cover crops will be the foundation for the session. Indicators of healthy soils will be demonstrated.

Topic 5 – Range Plant Identification – Kevin Sedivec, NDSU Extension Range Specialist
1:40-2:30

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.

DREC Contact Information:
Doug Landblom, 483-2348 Ext 109, 690-8245 (cell),
douglas.landblom@ndsu.edu

Dickinson Research ⬤ Extension Center
Vo-Ag Student Field Day
September 11, 2013

PROGRAM

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

9:30-10:00   Draft Horse Harnessing Demonstration – Garry Ottmar, DREC Ranch Manager
will demonstrate draft horse harnessing

10:00-10:15 Students divide into 3 groups:
Caravan to Section 19 in school buses for the morning concurrent sessions
Rotation Times: #1 (10:15-10:45), **#2** (10:50-11:20), **#3** (11:25-11:55)

Topic 1 –   Beef cattle frame score: What do we mean by the term "Frame Score" and why is it important? – Mr. Doug Landblom, DREC Beef Cattle Specialist

The dynamics of the beef cattle industry are always changing. During this session, we will talk about how a given animal's frame score is determined and ways that frame score measurements are used to describe different types of cattle. Using beef cattle of different frame score, the demonstration will define the economic importance of frame score as it relates to beef cattle profitability.

Topic 2 –   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. These two educators will demonstrate the differences in forage quality of several feed samples and students will rank several different forages for their nutrient quality and digestibility.

Topic 3 –   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 and integrated crop rotation with livestock and cover crops will be the foundation for the session. Indicators of healthy soils will be demonstrated.

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

Topic 4 –   Animal Ultrasound Description – Songul Senturklu, Visiting Research Scholar,
12:45-1:30   Canakkale Onsekiz Mart University, Turkey
                Ultrasound Demonstration - 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 #5

Topic 5 –   Range Plant Identification – Kevin Sedivec, NDSU Extension Range Specialist
1:40-2:30

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.

DREC Contact Information:
Doug Landblom, 456-1109, 690-8245 (cell), douglas.landblom@ndsu.edu