

2003 Review

Iowa State University Sheep Teaching Farm

South State Avenue, Ames, IA

A.S. Leaflet R1846

Joel Morriscal, superintendent,
Animal Science Sheep Teaching Unit

Mission

Provide facilities, livestock, and instruction for undergraduate education and extension outreach programs on sheep production and flock management.

History

The Iowa State University Sheep Teaching Farm is one that is steeped in tradition and excellence. Iowa State University has been exhibiting sheep at the highest levels of competition since the very beginning of livestock shows in the United States. Iowa State College's interest in sheep exhibiting began in the early 1900's when the college exhibited Oxford and Southdown wethers at the 1912 International Livestock Exposition in Chicago, IL. The farm continues to raise productive, competitive breeding stock today.



An early judging class at Iowa State College



This building was headquarters for the sheep farm until 1965 when the farm was relocated to its current site on South State Street Avenue.

Sheep farm area and land use

The farm is currently being transitioned into a rotational cropping system in an attempt to maintain appropriate soil phosphorous levels and increase productivity per acre. The rotation consists of corn/soybean production, alfalfa brome and bluegrass mixture hay production, and pastures of that same composition. In the past 35 years pastures and hay fields were much more static, resulting in eventual losses in both productivity and grass and legume species diversity in pastures.

Facilities

Facilities consist of three buildings. The first building is 30' x 218' and was built in 1966. It has ten 18' x 24' pens, two heated lambing rooms, an office with restroom, and two small storage rooms. The building is mainly used during late gestation and lactation of the winter lambing ewes. It houses replacement ewe lambs and finishing lambs in the summer and fall months. Also in 1966, a 30' x 90' structure was built for the main purpose of feeding and finishing of lambs for market. The barn also has two pens where stud rams are housed when not in active breeding. The third structure is a 32' x 80' building that was built in 1956. This building is used mainly in the late fall and winter months when pastures are no longer available. It houses mature females during the first two trimesters of pregnancy and open females before breeding and after weaning.

Teaching Activities

The Iowa State University Sheep Teaching Farm plays a critical role in undergraduate education by providing hands on interaction in various components of sheep production. The farm supports the following undergraduate courses:

Animal Science 114 L	Working with Animals
Animal Science 214 L	Domestic Animal Anatomy and Physiology Lab
Animal Science 250	Food Animal Science
Animal Science 305	Livestock Evaluation
Animal Science 332	Laboratory Methods in Animal Reproduction
Animal Science 336	Livestock Behavior and Well-Being
Animal Science 426	Sheep Systems Management
Animal Science 475	Intercollegiate Judging Training and Competition



A group of lactating ewes and lambs in early spring.



Hank, the Great Pyrenees guard dog at the farm, is used to protect the flock against coyote predation.

The farm and its livestock are also used for a variety of events for the Block and Bridle club including Little North American Showmanship Competition, Junior Livestock Evaluation Competition, VEISHEA petting zoo, and Ag Olympics. Block and Bridle club members also organize and schedule tours of the farm for day-care and pre-schools units in the Ames area.

In addition to the classes previously listed, for the last several years the sheep teaching farm has also held programs and labs for the Iowa State University College of Veterinary Medicine. The farm also provides programming for the Iowa State 4-H office and judging workouts for 4-H, junior college, and senior college judging teams from across the United States.



Discussion of ruminant anatomy and physiology by Dr. George Brant in Animal Science 214L.



Animal Science 114 lab students taking a tour of the ISU Sheep Teaching Unit

Research

Starting this year the sheep farm is partnering with the University of Iowa Medical School on a research project. U of I researchers are using bred ewe lambs as a human model in the study of hypertension in pregnant women and their children. Ewes housed at the sheep teaching farm are synchronized and timed-bred every week in small groups. Twenty-eight days after breeding they are pregnancy checked and bred ewes go to the Animal Resource Station where research protocols are applied.

Flock Composition

The farm consists of 250 mature ewes, and utilizes three different production systems. The first system uses a 125-head commercial white face flock that is mainly comprised of Polypay and Polypay-cross females. This flock is on a low input, low labor management system with ewes that are moderate to small framed, easy fleshing, durable and prolific. Ewes are fed average to low quality forages during the dry lot period and little or no concentrate. Lambing is done on spring pastures in May on a rotational grazing system. Weaning usually occurs between August 1 and September 1, depending on pasture availability. The second production system uses a 60-head registered Hampshire flock. These ewes are shed lambed in January and February. Large frame size and rapid growth in combination with desirable phenotype are the selection criteria in the Hampshire flock. Breeding stock from this group are marketed directly from the farm or at state and national sales.

The third and final management system utilizes a flock of 70 Suffolk-based commercial ewes that lamb in January and February. The objectives of this management system are to produce competitive show lambs for sale to junior livestock exhibitors for county, state and national exhibition. Select stud ram prospects and replacement ewe lambs are marketed directly from the farm or at state and national sales.



A stud ram from the commercial white face flock.



A top quality Hampshire ewe lamb from the 2001 lamb crop. This ewe lamb was 3rd in class at the Iowa State Fair and 6th in class at the North American International Livestock Exposition.



McIlrath 0150 – one of the outstanding sires in the Suffolk breeding program.



5th place overall 4-H market lamb at the 2001 Minnesota State Fair. Raised by the ISU Sheep Teaching Farm



Grand Champion Market Lamb 2003 Story County Fair. Raised by ISU Sheep Teaching Farm.