

McNay Memorial Research Farm: A Brief History

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Land

The McNay Memorial Research Farm in Warren Township, Lucas County, was started in 1956 when Harry and Winnie McNay deeded a 480-acre tract of land in Sections 5 and 8 to the Iowa State University Alumni Achievement Fund. From that time until the death of Winnie in 1967 and of Harry in 1975, an annuity to the McNays and the taxes and insurance were paid by the Alumni Achievement Fund. Throughout that period of time, the Iowa Agriculture and Home Economics Experiment Station leased the land from the Alumni Achievement Fund and used the property for research in accordance with the expressed wishes of Harry and Winnie McNay.

In 1967, a 354-acre tract in Sections 7 and 18 was acquired by the Committee for Agricultural Development (CAD) from Joe and Rose O'Reilly for development into a headquarters area for the beef breeding research project. A tract of 125 acres in Sections 7 and 18 was purchased from Vera Zike in June 1968 by CAD and made available for research at the McNay Farm. In 1970, the ISU Alumni Association purchased 240 acres from M.J. and Mary Halferty. This tract, located in Sections 8 and 9, joins the original McNay Farm on the south and east. A 71-acre tract in Section 18, which joins the Zike tract on the south and crosses the Chariton River, was obtained from A. Cochran in 1971. A tract of 360 acres in Sections 6 and 7 was obtained from John and Gary Lazear in 1973, as was a 215-acre tract in Sections 7 and 18 from Kermit Kendall. These two tracts are contiguous with the original McNay tract and O'Reilly tract. In 1984, the Anna Throckmorton property of 135 acres was

purchased by CAD. The south 65 acres were sold to an adjacent property owner. CAD also purchased an adjoining 55 acres. The total acreage in the McNay Research Farm is currently approximately 2,000 acres. The entire McNay Farm is now owned by Iowa State University. The McNay Memorial Research Farm consists of irregular upland flats flanked by gentle to steep slopes typical of south central Iowa. Predominant soils are Haig, Edina, Shelby, and Grundy.

Livestock

The livestock inventory has varied from approximately 700 to as high as 1,100 cattle, and from 200 to 600 sheep, depending on the calving/lambing season and the time of year. The principal livestock research deals with beef cattle and sheep breeding, although some animals are also included in management research programs and feeding or grazing trials. The long-term mission of the McNay Memorial Research Farm is to serve as a research station to provide information on beef cattle breeding, beef cattle management, sheep management, pasture and forage research, crops research including varieties, planting dates, plant populations, fertilizer usage, tillage methods, and crop residue usages for the livestock farming that is prominent in southern Iowa.

Over the years, the McNay Research Farm expanded as other southern Iowa ISU farms were closed. For example, in 1974 the Albia Farm was closed and the cattle, staff, and equipment were moved to McNay. In 1987, the Shelby-Grundy Farm near Beaconsfield was closed and the sheep flock was moved to McNay.

Staff

Oliver (Bob) Daniels became superintendent in 1959 and served in that position until his death in 1974. The next superintendent was Robert Bishop who served until April 1975. Ben Huhn

was superintendent from October 1975 until February 1976. Jim Secor was appointed as a research manager in March 1977 and as superintendent on July 1, 1977. Dennis Maxwell has served as beef cattle manager since March 1975. Few research stations have enjoyed the strong, continuous leadership that Mr. Secor and Mr. Maxwell have provided to the McNay Research Farm.

Buildings

In 1967, a major beef cattle facility with silos was constructed. During the late 1980s several major buildings were completed at the McNay Farm including a new headquarters with offices, meeting rooms, restrooms, and shop; a new sheep barn; and a new research beef cattle feedlot building. Also in the late 1980s, a major project to demonstrate growing, harvesting, and burning green wood chips to heat the shop and a residence was started. The farm currently has five residences including the original McNay brick home with tile roof. In 2004–2005, a major beef cattle facilities upgrade was completed with housing for bulls, an improved cattle handling area, a laboratory building, and improved feedlot runoff control and fencing. The farm also has numerous ponds, miles of fence, and various paddock and watering systems.

Beef Cattle Breeding Project

The centerpiece of the McNay Farm's research has been the beef cattle breeding project that has evolved over the years. By its nature, beef cattle breeding research is a slow process. Beginning in 1956, the work was led by Dr. Lanoy Hazel. Crossing of cattle breeds was researched with the primary purpose to "investigate the types of cattle most suitable for beef production in Iowa." Large, medium, and small Hereford and Angus sires were bred to Hereford and Angus cows. In 1966, Dr. Richard Willham assumed leadership of the cattle breeding project and work began on a dairy–beef cattle crossbreeding

project involving Hereford, Angus, Holstein, and Brown Swiss breeds.

Artificial insemination and fall calving was used by 1968. In 1973, Limousin and Charolais bulls were evaluated. In 1977, the project was revised to develop three synthetic beef lines—small, medium, and large cattle using Angus, Jersey, and Simmental. The new project was labeled Beef Systems and included work on the health, nutrition, meat quality, and management of the cattle.

In 1987, Drs. Doyle Wilson and Gene Rouse became active in the project leadership; they were pioneers in applying the use of ultrasound as a noninvasive selection tool on live cattle. A new project of purebred Angus cattle was developed emphasizing a high marbling line and high retail product (lean) line. This project was started in the mid-1990s to study purebred Angus cows at the ISU Rhodes Research Farm and crossbred cows at the McNay Farm.

In 2003, it was decided to close the Rhodes Farm due to severe ISU budget reversions. Therefore, in 2004, the McNay crossbred cows were sold and the purebred Angus cowherd was moved to the McNay Farm where the research continues. In March 2005, the project marketed ISU Imaging Q9111, a purebred Angus bull, to Semex, an international genetics company. The bull was born in 1999 and was described as "a correct, massive dynamic sire" with a "powerful combination of growth and grid." In 2004, ISU Imaging Q9111 ranked in the top 1% of the Angus breed for intramuscular fat and also for two-performance multi-trait indexes. The McNay Farm and the ISU's breeding project have actively marketed this superior germplasm as semen and embryos to industry.

The McNay Memorial Research Farm has been the site of many other research projects. During the 1980s and 1990s, Dr. Merlin Kaerberle, DVM, conducted work related to bovine

virology, particularly bovine viral diarrhea (BVD) and bovine respiratory syncytial virus (BSRV), using the McNay beef cattle. Dr. Dan Morrical coordinated the sheep work beginning in 1989 when sheep were moved to the McNay Farm.

Additional research projects and demonstration have involved 1) sunflower production; 2) shatter cane control; 3) nematode control; 4) alfalfa-bromegrass-orchardgrasses for beef cattle grazing as well as reed canary grass and tall fescue; 5) top-dressing of phosphorus on pastures under two stocking rates; 6) management of trees on Conservation Reserve Program (CRP) land; 7) control of multiflora rose; 8) tile drainage studies in southern Iowa soils; 9) biomass production of various crops; and 10) demonstration home gardens.

Contributions

Significant contributions of the McNay Farm to southern Iowa have been 1) establishment and use of improved forages for pasture; 2) excellence in beef cattle breeding; 3) beef cow reproductive management; 4) early weaning of beef calves; 5) fall calving of beef cows; 6) double cropping (hay followed by corn); 7) no-till production of corn; 8) herbicide uses and recommendations; 9) superior ewe flock management and lamb feeding; and 10) intensive grazing systems.

The ISU McNay Research Farm continues to conduct numerous agricultural research projects of significance for southern Iowa agriculture. The McNay Farm is expected to be the primary agricultural research location for Iowa State University's College of Agriculture for many years in the future.