

Poultry Science Center

A.S. Leaflet R2219

Bill Larson, Superintendent,
Animal Science Poultry Unit

Summary

The current ISU Poultry Farm was built in 1963 and is located on South State Street approximately 3 miles southwest of the main campus. It is located on the teaching farm complex that also includes the beef, sheep and swine teaching units. The unit is utilized for teaching and research activities with broilers, layers, turkeys, and other avian species. At least six courses are taught annually at the farm. Three animal science faculty and a number of faculty from other departments in the College of Agriculture, the College of Veterinary Medicine, and from the USDA National Animal Disease Center utilize the birds and farm facilities for their research.

History

The first ISU Poultry Farm was located where the Towers Dorms are currently located. The current Poultry Farm was built in 1963 and covers 11 acres. The Poultry Science Center is the single farm within the department that provides the facilities and labor to maintain programs of excellence in research and instruction with avian species.

Facilities

The nine buildings at the ISU Poultry Farm are:

- Main office building – a multiple use facility
 - office space and break room
 - hatchery room with 5 Jamesway incubators each capable of hatching approximately 2,500 chicks
 - nutrition room with two Hobart mixers and small scales for mixing small batches of feed
 - battery room used for quail research and containing 90 small cages and several batteries
 - classroom that will seat about 25 students
- Brooder house – used for genetics research
 - eight large pens that are subdivided and used for brooding and rearing chicks
 - each pen can hold approximately 800 chickens
- Teaching house – provides support for animal science courses and tour groups
 - east end has one row of cages comprised of 60 individual cages suspended over an open pit. The rest of the east end has plywood over the pits and the area is used for demonstrating management procedures in animal science classes
 - west end has 36 pens that are 6 foot by 6 foot pens used for holding exotic breeds of chickens, turkeys and ducks that are viewed in animal science classes
- Mating house – used for genetics research
 - contains 1681 cages used for small to medium sized hens and roosters
 - additional 360 cages for larger hens and roosters
- North nutrition house – batteries and 4 by 4 foot pens are used for nutrition trials
- Turkey and broiler house – currently used for nutrition trials
 - twenty-four floor pens that are 7.5 foot by 14 foot for broiler or turkey nutrition trials
- Layer house – currently equipped with 528 laying hen cages, each capable of holding two to three hens, for a total of 1,584 laying hens, suspended over open pits
- Feed mill – includes a weigh bin, horizontal feed mixer, vertical feed mixer, scales, hammer mill, feed ingredient storage, and three large outside storage bins
- Warehouse – storage for tractor, pickup, manure wagon, and miscellaneous items

Inventory Numbers During 2005

- Hatched, brooded, and reared 2,098 birds from specialized genetic lines of chickens
- Mating house numbers ranged from 200–1,100 adults
- Completed 13 nutrition trials utilizing 3,700 chickens, quail, and turkeys
- Maintained 125 exotic breeds of chickens and turkeys for teaching
- Hatched or purchased 350 chicks for teaching

2006 Iowa State University and USDA Poultry Science Day Report

Teaching Activities

Animal Science 101 – Three hundred fifty to four hundred students per year attend a two-hour lab at the farm, and eggs are sent to campus for a second lab. Management techniques are demonstrated to all students, and they also tour the exotic breeds of chickens.

Animal Science 214L has about 200 students per year. The farm supplies 140 fertilized eggs in various stages of development and about 100 roosters and hens each semester for anatomy labs.

Animal Science 223 has 6–8 students every other year. Intensive management practices are taught utilizing the farm for 2-hour labs throughout the term.

Animal Science 332 has about 60 students annually attending a two-hour lab at the farm to work with roosters for analysis of semen.

Animal Science 336 has 40–50 students annually coming to the farm to monitor the activity and behavior of chickens in different environments.

Animal Science 423 has about 6 students every other year. Intensive management practices are taught utilizing the farm for two-hour labs throughout the term.

Research Activities

Three faculty members conduct the majority of research at the farm, but several other faculty have significant research activities during the year.

- Dr. Dong Ahn is a poultry meats and egg specialist. His research has included studying the effects of varying levels of Vitamin E on the suppression of diseases.
- Dr. Kristjan Bregendahl is a poultry nutritionist and is currently conducting research on dietary strategies to improve nutrient utilization and intestinal health of laying hens, turkeys, and broilers.
- Dr. Susan Lamont's research program involves immunogenetics and poultry breeding. Her research group focuses on the molecular genetics of poultry immunology, disease resistance, skeletal composition, body composition and meat quality.
- Other researchers include: Drs. Johnson, Powers, Nissen, Trampel, Xin, Andreasen, Ghoshal, Nieves, and other scientists from the USDA National Animal Disease Center.