

Poultry Science Center

A.S. Leaflet R1932

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. Four animal science faculty and a number of faculty from other departments in the college of agriculture and from the 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 2500 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- currently 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- currently 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 hens, for a total of 1056 laying hens, suspended over open pits
- Feed mill- includes a weigh bin, vertical 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 2003

- Hatched 2091 birds from specialized genetic lines of chickens
- Brooded and reared 1937 birds from specialized genetic lines of chickens
- Mating house numbers ranged from 200 to 1047 adults
- Completed fifteen nutrition trials utilizing 1587 chickens, quail and turkeys
- Maintain 125 exotic breeds of chickens and turkeys for teaching
- Hatched or purchased 350 chicks for teaching

Teaching Activities

Animal Science 114L has 350-400 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 250 has about 150 students per year. Each student attends three 2-hour labs per semester at the farm. The first lab involves a tour and candling of eggs. The second lab involves “hands on” work such as vaccinating and wing-banding (125 chicks provided), and the third lab involves artificial insemination and feed management techniques.

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 to 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

Four 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 was recently hired as a poultry nutritionist and is currently studying the laying hen's ability to utilize nitrogen in feed.
- 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.
- Dr. Colin Scanes studies poultry physiology and endocrinology and has recently investigated the effects of herbicides on quail.
- Other researchers include: Drs. Powers, Nissen, Trampel, Xin, Andreasen, Ghoshal, Nieves, and other scientists from the National Animal Disease Center.

