

2006 Review - Poultry Science Center South State Avenue, Ames, Iowa

A.S. Leaflet R2247

Bill Larson, superintendent
Animal Science Poultry Unit

History

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 annually use the farm either directly or indirectly. 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.

The first ISU Poultry Farm was located where the Towers Dorms are currently located. The facility being used at the present time was built in 1963 and covers 11 acres. The Poultry Science Center is the single farm within the department that provides 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
 - 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 contains 90 small cages and several batteries.
 - Class Room that will seat about 25 students.
 - Office Space and break room.
- 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 - 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 - used for nutrition trials.
 - Twenty-four floor pens that are 7.5 foot by 14 foot for broiler or turkey nutrition trials
- Layer House - 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. A new horizontal mixer was installed in 2006 that is capable of mixing up to 400 lbs.
- Warehouse - storage for tractor, pickup, manure wagon and miscellaneous items.

Inventory Numbers during 2006

- Hatched 2,161 birds from specialized genetic lines of chickens.
- Brooded and reared 2,000 birds from specialized genetic lines of chickens.
- Mating house numbers ranged from 200 to 1,166 adults
- Completed six nutrition trials utilizing 1,587 chickens.
- Maintain 125 exotic breeds of chickens and turkeys for teaching.
- Hatch or purchased 350 chicks for teaching.

Teaching Activities

Animal Science 101 has 267 students per year attend a two-hour lab at the farm. 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 50 roosters and 50 hens each semester for anatomy classes.

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 223 has 8 students. This is an introduction to principles, practices and decisions necessary when raising poultry.

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

Research Activities

Faculty who do research at the farm include:

- Dr. Kristjan Bregendahl is a poultry nutritionist and is currently studying the laying hen's ability to utilize nitrogen in the feed.
- Dr. Susan Lamont's research program involves immunogenetics and poultry breeding. Her research focuses on molecular genetics of poultry immunology, disease resistance, skeletal composition, body composition and meat quality. .
- Other users include: Drs. Powers, Nissen, Trampel, Xin, Andreasen, Ghoshal, Nieves, Spurlock, Butters-Johnson, and several NADC personnel.

