

2008 Review - Poultry Science Center



South State Avenue, Ames, Iowa

A.S. Leaflet R2478

Bill Larson, superintendent,
Animal Science Poultry Unit

The ISU Poultry Farm is located on South State Street approximately 3 miles southwest of the main campus. It is part of 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 farm continues to maintain the oldest inbred line of chickens in the world. This line dates back to 1925. The Department of Homeland Security recently deemed the inbred lines of chickens maintained at the farm as essential to the Department of Agriculture.

History

The first ISU Poultry Farm was located where the Towers Dormitories 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 upon request.
 - 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 and turkeys 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 – starter 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.

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- Warehouse - storage for tractor, pickup, manure wagon and miscellaneous items.

Inventory Numbers during 2008

- Hatched, brooded and reared 2,751 birds from specialized genetic lines of chickens.
- Mating house numbers ranged from 150 to 1,400 adults.
- Completed one nutrition trial utilizing 1,050 layers.
- Maintain 95 exotic breeds of chickens and turkeys for teaching.
- Hatched or purchased 350 chicks for teaching.

Teaching Activities

Animal Science 101 has over 260 students per year that 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 54 roosters and 54 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.

Vet Med 490 had 10 students observe different behavioral characteristics of several different housing situations.

Animal Science 223 has 6-10 students once a year. This is an introduction to principles, practices and decisions necessary when raising poultry.

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. 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.
- Dr. Dong Ahn is a poultry meat specialist that uses laying hens for his research.
- Dr. Kristjan Bregendahl recently left the department so a search for a new poultry nutritionist is currently underway.
- Other users include: Drs. Trampel, Xin, Andreasen, Ghoshal, Nieves, Spurlock, and several NADC personnel.



