Research Grants
Opp ID: 24 | Research | Last edited on 29 Aug 2016

Full Details

Website http://www.uspoultry.org/research/ (http://www.uspoultry.org/research/)

Sponsor U.S. Poultry and Egg Association (USPOULTRY)

Amount The amount per grant is unspecified. Each year, the association allocates approximately $800,000 for the funding of research projects.

Funds can be used for graduate students, technicians, research supplies, and work... more »

Applicant Type New Faculty/New Investigator

Ph.D./M.D./Other Professional

Citizenship or Residency United States

Activity location United States

Abstract The U.S. Poultry & Egg Association is dedicated to the growth, progress, and welfare of the poultry industry and all of its individual and corporate interests. The promotion of problem-related research and the concomitant training of graduate students is high on the association's agenda.

Each year, the association allocates funds for research projects that benefit the poultry and egg industry. Research results are publicized in the industry press and made available to potential users.

Proposed research projects should be designed to provide information that has the potential to resolve real industry problems. The following list is organized by overall subject area. Items within each list are presented in priority order.

USPOULTRY realizes that new issues are always emerging and that scientists may see the importance of a potential problem that has not been recognized or cited as an industry research need. USPOULTRY invites proposals that address problems outside the industry lists but urges the submitter to provide ample background and justification to explain the need for the research.

Animal Welfare
1. Investigate methods to improve bird welfare during catching, caging unloading and bird movement through to shackling (including unloading area design).
2. Investigate alternatives to maceration for cull chicks or embryos from eggs.
3. Evaluate methods of mass depopulation, specifically for broilers, turkeys, layers or breeders.
4. Validate quantitative method(s) to evaluate bird welfare. Method may be specific to a particular area of production.
5. Investigate practices to maintain ammonia levels under 22 ppm year round.
6. Develop objective methods of animal welfare comparisons for various housing systems.
7. Define the contribution of genetic selection, incubation, nutrition, and management to leg weakness and skeletal problems and devise strategies to ameliorate these problems.
8. Investigate methods to determine the causes and methods to prevent wing damage in broilers and turkeys.
9. Evaluate the effects of probiotic/medic feed supplements on gut health.
11. Investigate alternatives to electrical stunning.
12. Evaluate carbon monoxide, carbon dioxide, humidity and ammonia sensors to monitor air quality.


15. Breeder Management (Broiler/Furnace):
   1. Develop rapid, non-destructive, and quantitative methods for determining egg microbiological quality for roosters.
   2. Develop improved methods for egg management, sanitation, and storage with an emphasis on optimizing chick quality.
   3. Alternative feeding/feeding programs for current feed restriction programs.
   4. Determine etiology, epidemiology, prevention, and control measures for the mortalities of breeder hens and roosters from disease or peak production.

5. Optimal nest requirements in broiler breeders.

6. Prevention management of pest, diseases, and parasites in broiler breeders.


8. Determine the pathophysiology, prevention, and control of necrotic disease in broiler breeders.

9. Management of ovary development and estrus cycle in breeder males.

10. Determine causes and prevention of early poultr mortality.

Meat Bird Management

1. Nutrition/Management programs to maximize performance and carcass yield of broiler production systems.

2. Define and describe the nutrition/management interventions that can substitute for traditional practices such as composting, litter amendments, etc.

3. Determine influence of spectrum intensity and pigmentation for different ages on performance and wellbeing.

4. Compare different brooding systems in broiler turkeys.

5. Develop strategies for improving feed conversion in tunnel ventilated broiler housing.


Upcoming Calculated Production:

1. Develop rapid, non-destructive, and quantitative methods for determining egg microbiological quality for roosters.

2. Develop environmentally acceptable and residue-free systems of control.

3. Develop models to predict the production of excessively large eggs, especially in molting females.

4. Preliminary Proposal

   - Spring 2017 Competition

   - Sponsor deadline - required

5. Diseases

   - Full Proposal

   - Spring 2017 Competition

   - Subject: Pathogenesis in orthomyxovirus (influenza)

   - Specific aims:
     1. Determine risk factors, epidemiology, pathogenesis, prevention, and control of the various respiratory diseases (respiratory dematitis, respiratory dematitis, necrotic enteritis, focal duodenal necrosis, cholangiopancreatitis, etc.).

   - Specific aims:
     2. Develop a novel method to prevent the disease of respiratory dematitis.

   - Specific aims:
     3. Develop methods for the diagnosis and control of infectious laryngitis.

   - Full Proposal

   - Specific aims:
     4. Enhanced Gut Health: understanding and improving the gut microbiome, including the mechanisms and impact of prebiotics and probiotics; understanding host-parasite interaction; understanding the role of viruses; developing strategies to manage gut health; improve diagnostics.

   - Specific aims:
     5. Determine the role of the gut microbiome in the prevention of rotavirus and other diseases in broilers and non-laying hens. Develop a live vaccine that will stimulate protection.