



Canadian Broiler Hatching Egg Producers' Association
Association canadienne des producteurs d'oeufs d'incubation de poulet à chair

Program No. 1 - CBHEPA Broiler Breeder Research Grant

Through this program CBHEPA will provide research grants for one or two University students (3rd year or graduate students). These research grants will provide an opportunity for a student to study and perform a short-term broiler breeder research project at a University or research facility in Canada. The cost associated to the presentation of the project results to an international congress are eligible.

- ✓ Detailed description of the project
- ✓ Duration and location of the project
- ✓ Potential benefits to the broiler hatching egg industry
- ✓ Reason for CBHEPA to support your project
- ✓ Budget (including CBHEPA's contribution)

The selected participant will be asked to prepare a detailed report and present it at the CHEP Annual Meeting in March 2019.

Topics for the 2018 Research Project

1. Production-based Research

- a. Methods to increase fertility and number of saleable chicks
 - Differences in fertility and paid hatch
 - When is it most beneficial to add spiking roosters?
- b. Egg size
 - Effect of maximum protein on egg size
 - Causes of egg weight differences

2. Breeder Welfare

- a. Density
- b. Euthanasia
 - Methods for birds >3kg, including low atmospheric pressure stunning (LAPS)
 - Is LAPS practical for on farm application?
 - Efficient and quick way to euthanize breeder flocks in an emergency situation
- c. Aggression
 - Feed energy and male aggression
 - Research linking specific genetic traits with male to female aggression
- d. Early mortality of breeder hens (*E.coli*, staphylococci)
 - *E.coli* and staphylococci more likely to post peak mortality association



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Topics for the 2018 Research Project (cont'd.)

- e. Ammonia control
 - Cost-effective methods to control ammonia via barn ventilation, additives, barn design and structural and equipment changes, especially in minimum ventilation situations (e.g. cathedral vs. flat ceilings as related to ammonia and animal care)
 - f. Physical alterations
 - Toe-trimming, beak trimming: ideal methods and timing for procedures
 - Cost-effective, practical management practices that can eliminate physical alterations
 - g. Transporting newly hatched chicks
 - Length of time that newly hatched chicks are sustained by the yolk sac
 - Effectiveness of hydration/nutrient products used prior to and during transit
 - h. Effects of vaccination programs on breeder welfare
 - Current status
 - Maximum thresholds - how much is too much?
3. **Environmental Research**
- a. Effects of temperature control on egg handling and holding, and egg transfer vehicles, including egg sweating and links to rots after eggs leave the farm.
4. **Poultry Health and Disease**
- a. Variant bronchitis-impact on breeder production and fertility
 - b. White chick syndrome
 - c. More efficient vaccination programs
 - d. Effect of probiotics
5. **Alternatives to Antimicrobials**
6. **Control of Foodborne Pathogens**
- a. Control of *Salmonella* vaccination (methods and effectiveness)
 - Newer *Salmonella* vaccinations or supplemental adjuvants to improve vaccine efficacy
 - b. Sources of infection
 - What is transferred to the chick? How does egg incubation affect *Salmonella* cells?
 - c. Possible barn differences, what type of construction, material, insulation, volume of air, angle to the sun (infrared radiation)
 - d. Prevalence
 - e. Population Density
 - f. Control of *Campylobacter jejuni*
 - g. On-farm strategies to reduce and prevent *Salmonella* while birds are in production
 - Reduce/prevent *Salmonella* via competitive exclusion (probiotics and antagonistic bacterial species for controlling foodborne pathogens)



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This program is open to students studying poultry science in Canada
Applicants interested in participating in this program should submit their application by
January 31, 2018.

Name of Applicant: _____

Address: _____

City: _____ Province: _____ Postal Code: _____

Telephone: _____ Cellular: _____ Fax: _____

Email: _____

University: _____ Major: _____

Please provide us with a brief outline of your research: _____

**Please forward your completed application and submission to the
CBHEPA offices at the fax number or address listed below.
We look forward to receiving your application.
Applications will be reviewed at the March 20, 2018 CBHEPA Meeting**

Canadian Broiler Hatching Egg Producers' Association

21 Florence Street, Ottawa, Ontario K2P 0W6
or fax it to (613) 232-5241 or email us at info@chep-poic.ca