

AGRI5705 Graduate Module Outline

Small Flock Extensive Production

Instructors: Primary – Bruce Rathgeber

Tel.: (902) 305-2749

Email: brathgeber@dal.ca

Additional (Margie Hartling, Deborah Adewole, Stephanie Collins)

Timing: Summer (2020) July and August

Description: Information to be presented will focus on small scale production of poultry. Emphasis will be placed on application of the fundamentals of developmental biology to incubation, rearing and management of meat and egg producing poultry in a variety of production environments. This will be compared to conventional intensive production.

Format: The module will consist of on-line presentations and reading materials. given by both the instructor and the students participating in the course.

Several lectures will be delivered by the instructor(s) to provide background in conventional poultry production practices. Students will deliver lectures and prepare assignments and participate in discussions on recent publications in Scientific Journals related to small scale poultry production.

Delivery: Lectures from instructors will be provided in a synchronous manner using Microsoft Teams and recorded to provide archive for students in the event of loss of service or inability to attend at the time.

Student Lectures will be recorded but played back over Teams at an agreed upon time to allow questions from the audience in real time.

Journal discussions will occur using Teams at a synchronous time.

Prerequisites: Students should have experience with science conducted in agriculture.

Method of Evaluation:

Two lectures (20 min each) (40%)

Lecture topics will be assigned at random and presented to the group using powerpoint and prerecorded video.

Cost of production Assignment (15%)

Each student will be asked to provide calculations of the cost of producing eggs or poultry meat in a small-scale backyard flock environment. Due at the end of the module.

Factsheet – Backyard poultry disease (20%)

A poultry disease topic will be randomly assigned to each student. A one page factsheet will be prepared and distributed. A discussion period will be scheduled for a 5 min presentation and a 5 min question and answer period.

Participation in Journal discussion (15%)

Journal article for review will be assigned for each student to present to the group for discussion during an on-line forum.

(10 mins to present summary – 10 mins for questions and discussion)

Myth Busting – 5 min X 2 (10%)

A video will be prepared to describe and debunk 2 myths that are commonly found in on-line forums associated with backyard poultry production.

Students will discover and post the myths of their choice. Priority will be given to early declaration of choice.

Lecture Topics:

1. Choice of laying hen for backyard egg production
There are several suppliers of commercial poultry genetics as well as heritage lines of chickens. The student will identify choices available and discuss pros and cons of these options.
2. Slow growing broilers in backyard meat production
In certain parts of the world the use of broiler chickens with a genetic background for slower growth than the standard commercial broiler is a significant part of chicken meat production. The student will outline the broiler lines available for this type of meat production and discuss how this type of bird may be more suited to backyard production than conventional broiler genetic lines.
3. Predator control for free-range poultry
Predators are a significant problem to manage in a free-range environment. The student will identify the predators of concern and discuss practical methods of minimizing the impact of these predators free-range poultry production.
4. Rodent control for free-range poultry
Rodents are a significant problem to manage in a free-range environment. The student will identify the rodents of concern and discuss practical methods of minimizing the impact on free-range poultry production.
5. Space requirements for free-range poultry
When planning to raise free-range poultry there are a number of facilities features to consider, one of the controversial aspects of these is the amount of space required for broilers and layers and the type of space.
6. Managing waste from backyard poultry excrement in the urban environment
7. Optimum pasture composition for free-range poultry
A feature of free-range production is that some nutrients can be acquired from the free-range environment. The student will expand on what to consider when providing pasture to free-range laying hens and broilers and what is considered the optimum composition of the pasture available.
8. Special considerations for small flock duck management
People familiar with raising chickens in a backyard environment may decide to add ducks to their production system. The student will outline what changes would be required to successfully manage ducks compared to chickens.

9. Special considerations for small flock guinea fowl management
People familiar with raising chickens in a backyard environment may decide to add Guinea fowl to their production system. The student will outline what changes would be required to successfully manage Guinea fowl compared to chickens.
10. Special considerations for small flock turkey management
People familiar with raising chickens in a backyard environment may decide to add turkeys to their production system. The student will outline what changes would be required to successfully manage turkeys compared to chickens.
11. Biosecurity in a small-scale poultry operation.
12. Nutrition and feed choice in organic laying hen production in the backyard.
13. Nestbox and perch requirements and design for laying hens in small-scale production.

Disease Topics for Factsheet:

1. Egg bound hen
2. Mites in free-range poultry
3. Nematodes in free-range poultry
4. Coccidiosis in small flock production of meat and eggs
5. Managing cannibalism in backyard poultry flocks
6. Leg problems in newly hatched pheasants
7. Impacted crop in chickens
8. Foot pad health
9. Infectious laryngotracheitis
10. Avian Influenza