

BAGB111 Poultry Production

ECTS Value: 3 ECTS

Overall Objectives and Outcomes

Humans depend on poultry for their food, and there are twice as many domestic chickens in the world as humans. Poultry species are kept for meat and egg production. This module on poultry production will develop the knowledge and skills needed to work in and manage a range of poultry production farms. The range of poultry production systems include intensive and extensive (free range and organic) systems and cover both egg production and meat production.

Chickens, turkeys and ducks are the main species discussed in this module with limited extend to other poultry breeds such as the geese, quail, pheasants, Guinea fowl, pigeons and ratites. Students will learn how to plan the stocking of poultry batches according to their intended use. They will also be involved in the whole chain of production from collecting eggs for hatching to the preparation of poultry and poultry products for market, including egg grading, egg defects and delivery.

This module covers also the knowledge of poultry biology and behaviour, which are essential to proper management of commercial poultry houses. Different production systems, housing design, the types of equipment used, considerations for animal welfare of farm animals, environmental impact, food safety and husbandry legislation are also part of this module. Record keeping is the essence of good management. By the end of this module learners will be in a position to keep production records including Feed Conversion Ratio (FCR), mortality/liveability, Hen-Housed (HH) and Hen-Day (HD) production, percentage fertility and hatchability. An important aspect of poultry production is effect of light regimes for both broilers and pullets.

By the end of this module, the learner will be able to:

Competences

- a. manage different housing systems used for different poultry breeds;
- b. resolve problems related to veterinary health;
- c. monitor bird welfare in order to improve performance;
- d. define how the red junglefowl was domesticated for various uses.

Knowledge

- a. rearing systems used for different species of poultry in view of the relevant welfare and husbandry legislation;
- b. different housing systems used for different poultry breeds;
- c. hatchery protocols which will lead to the hatching and preparation of chicks for dispatch;
- d. know how to design simple record forms;
- e. be able to develop protocols that meet the appropriate standard;

- f. the factors that influence the choice of building design, management practice and day to day operating procedures;
- g. understand the key factors that influence bird health and welfare;
- h. the actions that stock keepers need to take to ensure optimum conditions for the birds;
- i. foster the knowledge of poultry biology;
- j. understand the principles of poultry behaviour.

Skills

- a. control a poultry farms' financial management systems and record keeping;
- b. observe a batch of broilers chicks for health issues;
- c. operate the day to day management of a layers farm;
- d. check ventilation according to stock density of a turkey farm;
- e. assess different methods for preparing poultry of different age for transportation;
- f. evaluate the importance of light in a poultry intensive system;
- g. appraise the environmental impact of poultry manure;
- h. express opinion on record forms;
- i. argue about bird performance, bird health and management issues;
- j. discuss the domestic turkey reproductive scheme;
- k. comment on egg grading and how to detect egg defects;
- l. assess poultry welfare reared in different poultry production systems;
- m. keep records on PC or laptop;
- n. use video clips to learn different techniques of husbandry;
- o. use search engines to keep knowledge updated.

Mode of Delivery

This module adopts a blended approach to teaching and learning. Information related to the structure and delivery of the module may be accessed through the IfE Portal. For further details, kindly refer to the Teaching, Learning and Assessment Policy and Procedures found on the Institute for Education's website.

Assessment Methods

This module will be assessed through: Portfolio, Report, and Presentation of Case-study

Suggested Readings

Core Reading List

1. Appleby, M.C., Hughes, B.O., & Mench, J.A., (2004) Poultry Behaviour & Welfare. CABI Publishing, Wallingford, United Kingdom.
2. Bestman, M., Heijmans, J., Middelkoop, K. & Ruis, M. (2012) Poultry Signals. Roodbont Publishers., Zutphen, Netherlands.
3. Bestman, M., Heijmans, J., Middelkoop, K. & Ruis, M. (2013) Layer Signals: A Practical Guide for Layer Focused Management. Roodbont Publishers., Zutphen, Netherlands.
4. Bestman, M., Heijmans, J., Middelkoop, K. & Ruis, M. (2013) Broiler Signals. Roodbont Publishers., Zutphen, Netherlands.
5. Bermudez, A.J. (2013) Commercial Turkey Production. John Wiley & Sons, Incorporated, Hoboken, New Jersey.
6. Cherry, P. & Morris, T. (2011) Domestic Duck Production: Science and Practice. CABI, Wallingford, Oxfordshire, England

Supplementary Reading List

1. <https://www.isa-poultry.com/en/product/isa-brown/>
2. ISA White Parent stock Manual: <http://www.isapoultry.com/en/products/isa/isa-white/>
3. Ross 308 Parent stock manual: <http://en.aviagen.com/ross-308/>
4. Ross 308 Broiler handbook: <http://en.aviagen.com/ross-308/>
5. Managing the Rowan Ranger: <http://en.aviagen.com/rowan-ranger/>
6. Cobb 500 management guide: <http://www.cobb-vantress.com/products/products-overview>
7. Cobb 700 : management guide: <http://www.cobb-vantress.com/products/products-overview>
8. Cobb Sasso Management Guide: <http://www.cobb-vantress.com/products/products-overview>
9. Cobb Hatchery Academy: <http://www.cobb-vantress.com/cobb-academy/overview/blog/-in-category/categories/hatchery>
10. Egg Marketing Standards:
<http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=10785&l=1>
11. Laying hens protection regulations: <http://faolex.fao.org/docs/pdf/mlt49335.pdf>
12. Minimum rules (chickens kept for meat production) Regulations:
<http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=11051&l=1>
13. Poultry lighting, the theory and practice, Peter Lewis & Trevor Morris . Northcot . ISBN 0955210402
14. <http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=17379&l=1>