

Poultry Virtual EMS

Online resources to support veterinary students' learning about animal handling and husbandry.

These are suggested resources, students should have previously agreed learning objectives with their tutors, and the resources should be used only if they align. It is not compulsory for students to complete all resources.

The British Veterinary Poultry Association have created a suggested virtual poultry EMS placement that can be completed over 2 weeks. These resources have not been developed by the RCVS and we do not endorse any third party advertisements that may appear on external websites.

Learning objectives

Students should be able to:

1. Describe the structure and targets of the UK poultry industry
2. Describe how to pick up and restrain a chicken
3. List key husbandry, management and welfare requirements for birds at different life stages
4. Outline the importance of biosecurity measures on a poultry site and give examples of how this is implemented

Essential reading: broiler, breeder & layer management guides, Red tractor & freedom foods assurance schemes, BSAVA Backyard poultry manual

Tasks

The following tasks have been set for you to achieve each of the learning objectives above.

Week 1

Day One

1. Watch the following videos and make notes to describe the structure of the UK poultry industry
 - a. PD Hook video
<https://surrey.cloud.panopto.eu/Panopto/Pages/Viewer.aspx?id=7b8b115c-93d8-4af8-aa79-abf700d44607>
 - b. <https://seekbeak.com/v/NYojX2Je18e/auth/snap-group/o0y2RQYaJQW>
Password to watch: Eggscellent2020
Please answer the short (5 question) survey at the end of the tour.
Please note - The images and any details provided within the tour are privileged information, by accessing this resource users agree to abide by the following :

Any and all parts of the resource are strictly confidential and must not be shared with any persons beyond current staff or student members of the UK Schools of Veterinary Medicine and Science . Anyone found violating this agreement will face disciplinary action.

- c. <https://www.youtube.com/watch?v=odZ0TArucnI>
 - d. Egg processing https://www.youtube.com/watch?v=_klc5baCEoQ
2. Describe how to pick up and restrain a chicken
- a. <https://surrey.cloud.panopto.eu/Panopto/Pages/Viewer.aspx?id=71747010-1704-4c16-bff3-a96d010a4ef7>
3. List key husbandry, management and welfare requirements for birds at different life stages.
- a. Read husbandry chapter in BSAVA Backyard poultry manual

Day Two

- a. Watch this backyard/pet poultry husbandry video.
<https://surrey.cloud.panopto.eu/Panopto/Pages/Viewer.aspx?id=a3ae8731-c418-45d6-8d50-abf201561bb5>
- b. List 10 daily checks that clients should perform on their pet birds.
- c. Whilst watching this video, perform and record as many checks listed above as you can assess https://www.youtube.com/watch?v=ldJyV6kBh_4
- d. Read the Cobb broiler management guide
<https://cobbstorage.blob.core.windows.net/guides/5fc96620-0aba-11e9-9c88-c51e407c53ab>
- e. Watch this video by Aviagen on brooding checks and make a list of “chick checks”
<https://www.youtube.com/watch?v=mxsMR1pBnmY>
- f. List 10 other daily checks that must be performed on a broiler poultry unit. Assume the birds are older than 7d (brooding period).
- g. What do the terms “spread” and “activity” mean when describing a batch of birds?
- h. Sketch a shed of birds who are too cold, and another shed of chicks where the heaters in one half of the shed are not working.
- i. Whilst watching these videos, perform and record as many checks listed above as you can assess
 - i. <https://www.youtube.com/watch?v=bXWBcsYoXGw>
 - ii. <https://www.youtube.com/watch?v=y9aj-4fogCY>
 - iii. <https://www.youtube.com/watch?v=KC8GStmBdKc>

Day Three

- a. Read the following:
 - i. Ross breeder management guide
http://eu.aviagen.com/assets/Tech_Center/Ross_PS/RossPSHandBook2018.pdf

- b. List 10 daily checks that must be performed on a breeder poultry unit.
- c. Whilst watching this video, perform and record as many checks listed above as you can assess https://www.youtube.com/watch?v=xSwpWTrGj_k
- d. Read the following:
 - i. Hy-line Brown layer management guide
<https://www.hyline.com/filesimages/Hy-Line-Products/Hy-Line-Product-PDFs/Brown/BRN%20COM%20ENG.pdf>
- e. List 10 daily checks that must be performed on a layer poultry unit.
- f. Re-watch the Nottingham Layer Video (from Day 1, exercise b) and perform and record as many checks listed above as you can assess.

Day Four

- a. Based on what you have read and seen so far, identify key times of physiological and psychological stress in a broiler, layer and breeder's life.
- b. List methods of ensuring birds have appropriate nutrition for their stage of life, including feed constitution and methods of feed delivery.
- c. Summarise pet poultry nutrition in a five bullet points, ensuring you include different types and sizes of grit required and legislation regarding the feeding of kitchen scraps.

Day Five

4. Outline the importance of biosecurity measures on a poultry site and give examples of how this is implemented.
 - a. Watch the following video on a broiler site. Identify potential routes that infection could travel onto this site https://www.youtube.com/watch?v=5Fb_7W4tG3g&t=1s

Reflect on your learning over the past week and write five bullet points for each learning objectives summarising what you have learnt.

Week 2

Day Six

1. Describe the targets of the UK poultry industry - What measures of performance (key performance indicators or KPI) are used in broiler, breeder and layer industries?
 - a. Read the following:
 - i. <https://thepoultrysite.com/articles/use-flock-data-to-make-better-decisions>
 - ii. Cobb boiler performance and nutrition supplement
<https://cobbstorage.blob.core.windows.net/guides/3914ccf0-6500-11e8-9602-256ac3ce03b1>

- iii. Ross broiler breeder performance
http://eu.aviagen.com/assets/Tech_Center/Ross_PS//308SF-PS-EU-PO-EN-16.pdf
- b. Define FCR feed conversion ratio
- c. For an overview of poultry start up costs for livestock farmers thinking about diversifying see <https://www.fwi.co.uk/livestock/poultry/is-now-the-right-time-to-go-into-poultry-farming>
- d. Welfare versus Sustainability – Many would argue these are mutually exclusive, and that you cannot have both. For an example, read the following report by the NFU (National Farmers Union) into how increased uptake of Better Chicken standards is likely to negatively affect sustainability and price. Read the following chapters - Executive summary (p3-4) , Sections 3.1-3.6 (p14-21), Sections 4.5-4.10 (p26-30)
- e. <https://www.nfuonline.com/nfu-online/sectors/poultry/adas-final-report-18-october/>
- f. What is the biggest variable cost in poultry production? (TIP: refer to the NFU report above)
- g. Now you have answered the above, explain why FCR is such an important measure of performance?

Day Seven

- 3. List key husbandry, management and welfare requirements for birds at different life stages.
 - a. Revise your GCSE Physics – conduction, convection and radiation
<https://www.bbc.co.uk/bitesize/guides/ztrrd2p/revision/1>
 - b. Watch this video made for 3rd year vet students to remind them about ventilation concepts. <https://surrey.cloud.panopto.eu/Panopto/Pages/Viewer.aspx?id=ccd2dc26-db92-4a6a-bfb2-6a097769543e>
 - b. Read the Cobb broiler management guide Chapter 6 on ventilation
<https://cobbstorage.blob.core.windows.net/guides/5fc96620-0aba-11e9-9c88-c51e407c53ab>
 - c. Draw conventional air flow in a controlled environment poultry shed with side inlets and roof fans AND side fans and roof inlets. Annotate your pictures to explain why the air rises and falls and how it warms and removes waste gasses and moisture.
 - d. Watch this video by Aviagen <https://www.youtube.com/watch?v=A-HSb4EAFpE>
 - e. What do you understand about minimum ventilation rates?
 - f. What strategies can be used to reduce the effects of heat stress when its 30°C outside?

Day Eight

- g. Read the following documents
 - i. Red Tractor https://assurance.redtractor.org.uk/contentfiles/Farmers-6803.pdf?_id=636359681046417894
 - ii. Freedom foods - <https://www.berspcaassured.org.uk/media/1236/rspca-welfare-standards-for-meat-chickens.pdf>
- h. Compile a table to compare and contrast the differences in these assurance schemes.

- i. If you are interested, the links for other species can be found at:
<https://www.berspcaassured.org.uk/rspca-welfare-standards/>
- j. Read the following leaflet on beak trimming & Novotech machine. http://www.hy-line.co.uk/uploadedfiles/1515069657-infra_red_beak_treatment.pdf
- k. What bit of legislation covers this procedure? List three reasons for and against this procedure.

Day nine

- l. Based on this commonly used pullet rearing vaccination schedule, what diseases are layers vaccinated against?

1. FR Standard	
Age in Days	Vaccine
Hatchery	Vaxxitek- delete vaccines in red text
	Rispens/ THV
	Gallivac IBD (1/2 dose)
	Paracox
1	H120 or Ma5
5	Gallivac Se
19	Hitchner B1
25	IB Primer IBD TAD Gumboro
Serology 28	
35	Poultvac E.coli (Optional)
39	Clone 30
47	Gallivac Se
49	IBmm&Ark Avian Encephalomyelitis
63	Nemovac
Serology 63	10 bloods per house for Mg Elisa, Ms Elisa, ND(HI), IBM41(HI). Submit to ILS.
77	ILT
82	

- m. Watch videos of rearing of other poultry
 - i. Turkeys
<https://surrey.cloud.panopto.eu/Panopto/Pages/Viewer.aspx?id=a78b73fe-c1f3-446d-ad57-abf700d451af>
 - ii. <https://surrey.cloud.panopto.eu/Panopto/Pages/Viewer.aspx?id=9806e1d3-4212-4b20-a81d-abf700d45c50>
 - iii. <https://surrey.cloud.panopto.eu/Panopto/Pages/Viewer.aspx?id=2b15f911-9756-47ea-9a86-abf700d45f6b>

Day Ten

- 4. Outline the importance of biosecurity measures on a poultry site and give examples of how this is implemented
 - a. Watch the following video on a free range laying site. Identify potential routes that infection could travel onto this site
<https://surrey.cloud.panopto.eu/Panopto/Pages/Viewer.aspx?id=7b082e03-4504-42f8-9eab-abf700d7412f>
 - c. Comparing your notes on biosecurity on the free range and indoor broiler unit, write three bullet points exploring the conflict between biosecurity and extensive production systems.

Reflect on your learning over the past week and write five more bullet points for each learning objective you have covered this week.

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