

# Poultry Production (Proper Flock Management Practices) Module 4

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**Department of Education  
Republic of the Philippines**

## Technology and Livelihood Education (TLE) – Grade 9

Learner's Material

First Edition, 2013

ISBN:

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Published by the Department of Education

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## MODULE 4: Proper Flock Management Practices

CONTENT STANDARD	PERFORMANCE STANDARD
The learner demonstrates understanding and skills required in proper flock management.	The learner independently performs and maintains proper flock management.

### I. INTRODUCTION

In this Module, learners will be provided with the knowledge, skills and attitudes required for an effective and proper flock management in poultry production. The Module will also give the learners a chance to observe and manifest actual poultry farm conditions.

The learners or raises can also learn different approaches and processes in poultry farm operations regarding activities on how to manage the flock efficiently. The knowledge and skills they will learn from this Module will help them to reduce potential or probable flock loss.

### II. LEARNING COMPETENCIES

At the end of the Module, the learners are expected to:

- a. provide feeds and fresh water to the birds;
- b. observe and perform proper ventilation, beak trimming, culling, molting and culling of birds; and
- c. identify and select good layers based on their characteristics.

### III. PRE-/DIAGNOSTIC ASSEMENT

Direction: Read carefully the questions below. Write the letter of your choice in your activity notebook.

1. Forced or temporary molting may be caused by sudden \_\_\_\_\_.
  - a. change of caretakers
  - b. change of feeds
  - c. change in management
  - d. visit of visitors from outside
  
2. Which is NOT a purpose of culling?
  - a. To eliminate non- productive birds
  - b. To give birds left more room in the house
  - c. To reduce the number of birds in the house
  - d. To save and economize feeds
  
3. To monitor the performance of the flock, raiser or caretaker should accomplish and keep \_\_\_\_\_.
  - a. farm output
  - b. management data
  - c. management record
  - d. visiting plan
  
4. The height of light bulbs from the floor should not be more than \_\_\_\_\_.
  - a. 1.4 meters
  - b. 2.4 meters
  - c. 3.4 meters
  - d. 4.4 meters

5. What does culling mean?\_\_\_\_\_.
- Removal of unproductive birds from the flock
  - Raising quality birds
  - Selecting a good quality birds
  - Removal, raising and selecting birds
6. Which is NOT a proven care and management practice of poultry?
- Avoid overcrowding.
  - Follow approved practices.
  - Keep birds eating all the time.
  - .. Keep flock healthy.
7. How do you observe strict sanitary management practices in your poultry farm?
- Keep away from diseased flock.
  - Keep on introducing new breeds of animal in the flock without assessing their health.
  - .. Invite visitors and buyers to visit your project.
  - Stop giving medication to the flock even if there is an outbreak of disease.
8. Which is the most effective method of preventing cannibalism, feather picking or picking out?
- Debeaking
  - Culling
  - Nail cutting
  - Segregation

9. Starting from the recommended lighting at 19 weeks of age, light hours should be increased by \_\_\_\_\_.
- a. 15 minutes every week
  - b. 20 minutes every week
  - c. 25 minutes every week
  - d. 30 minutes every week
10. Which is a sign of a good layer?
- a. Dull and somewhat cloudy eyes
  - b. Early molter
  - c. Late molter
  - d. Small, dry, and round vent
11. How do you catch laying hens during culling?
- a. Catch them in the middle of the night.
  - b. Feed the bird to facilitate catching.
  - c. Run after the birds inside the poultry house until they get tired.
  - d. Use catching crate to confine the bird.
12. Which condition exists where birds form a habit of feather picking, to the extent of eating their companions if not controlled?
- a. Cannibalism
  - b. Culling
  - c. Molting
  - d. Toe picking

13. To check for overcrowding, inadequate feeder, and water space, the uniformity of stocks is\_\_\_\_\_ .
- a. less than 80 %
  - b. less than 85%
  - c. less than 90 %
  - d. less than 95 %
14. The maximum day light requirement of layers at maturity is\_\_\_\_\_.
- a. 12-13 hours
  - b. 14-15 hours
  - c. 15-16 hours
  - d. 16-17 hours
15. Listed below are correct waste management practices, EXCEPT\_\_\_\_\_.
- a. construct canals from poultry farm to rivers.
  - b. use manure for biogas
  - c. use manure for fish feeds
  - a. use manure for fertilizer



## **LESSON 1**

### **PERFORM PROPER FLOCK MANAGEMENT**

In this Module the learners or raisers will learn how to perform proper flock management that will help them make a successful poultry production.

This lesson deals with the importance of flock uniformity, lighting program debeaking, molting and culling that will lead to a successful and productive poultry raising.

#### **WHAT TO KNOW?**

At the end of the lesson, the learners should be able to:

1. discuss flock uniformity in egg production project;
2. observe proper lighting programs of laying flock;
3. perform debeaking of chicks and pullets;
4. demonstrate proper culling procedure ; and
5. monitor indicators of molting.

#### **PROCESS**

##### **Flock Uniformity**

If maximum performance is to be achieved, flock uniformity is very important. To be considered a uniform flock, at least 80% of the birds should weigh within plus or minus 10% of the average flock weight. For example, if the average weight of 100 birds is 300 grams (30g/chick), at least 80 birds should fall within 270 grams to 300 grams weight range (27-30g/chick). If the flock is less than 80% uniform, check for overcrowding, inadequate feeder and watered space, and disease condition in the flock. Specific corrective measures must be instituted as quickly as possible. In those

conditions, birds that fall below 10% of the average weight can be moved to a separate pen and put on a higher plane of nutrition(e.g. by feeding a starter ration) to enable them to catch up.

Body weight of layers should be monitored during the laying period. In general, the layers should have a weekly increase in weight within the first 10 – 16 weeks of production, and a relatively constant body weight with slight gain thereafter until culling. Failure to achieve the standard weight during the laying period will result in reduced egg size and subsequently a decrease in egg production.



Courtesy of Villacorta Integrated Farm

## Lighting Program

Light control is a valuable tool to control sexual maturity and to ensure high egg production, bigger size of eggs and longer productive life. Increasing day length during the growing period stimulates sexual maturity while decreasing or constant day length lowers it down.

To meet the lighting requirements of a flock, natural day light should be supplemented with artificial lights. A light intensity equivalent for the following wattage of incandescent bulb per square meter of floor area should be provided.

From the beginning of 17-18 weeks (119-126 days) of age, artificial light intensity equivalent to 3 watts of incandescent light or a minimum  $\frac{3}{4}$  of a fluorescent light per square meter floor area should be provided and evenly distributed inside the laying house. Light bulbs should be not more than 2.4 meters (8 ft.) in height from the floor laying house.

## Proper Ventilation



Proper ventilation provides birds comfort. This eliminates ammonia accumulation, moisture and other gases from the building. It provides fresh air (oxygen) and controls the environmental temperature in the pen.

## Systems of Ventilation

1. Gravity system- It is a natural means of ventilation. May use windows, slot inlets that can provide free air movement.
2. Forced air system- It gives the best control of air movement.  
Fans are used to move out warm moisture, laden air and ammonia and bring in cool, fresh air.

Starting from the recommended lighting at 18 weeks of age, lighting duration should be increased by 15 minutes every week or if this is not possible, 30 minutes every 2 weeks until a maximum of 16 hours of day light per day is reached. These maximum light hours should be maintained throughout the laying period.

To obtain the maximum effects of the lighting program, consider the following;

- Light intensity in the laying house should not be less than the growing period.
- Artificial lights should be switched off 30 minutes after sunrise, and switched on 30 minutes before sunset.
- Bulbs and reflectors should be cleaned regularly. Busted bulbs should be replaced immediately.
- When increasing light hours, do it during the cooler predawn hours. This will encourage feed intake.
- During dark overcast days, use artificial lights all day.
- Never decrease light hours anytime during the laying period.

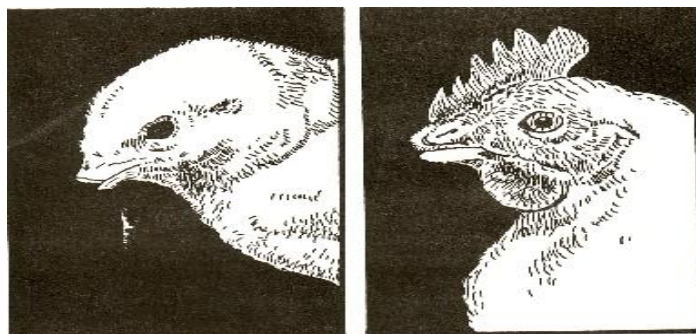
## Debeaking/Beak Trimming

Debeaking or beak trimming is the most effective method of preventing cannibalism, feather picking or picking out. It also helps in minimizing feed wastage. Debeaking is done by removing parts of the upper and lower beaks of the birds.

Birds are usually debeaked at 6-8 days of age; only a small percentage of the birds will require re-debeaking before being moved to the laying house.

The beak should be cut carefully and precisely. Important points to observe in using hot- blade debeakers are the following:

- The debeaker blade should be heated to a glowing cherry red to ensure proper trimming and cauterization of the beak.
- If a debeaker adaptor for debeaking is available, debeak chicks below 2 weeks of age. Insert the closed beak squarely in the proper guide hole to trim 2mm. from the nostril or at least 1/2 of the beaks length.
- Cauterize the cut portion of the beak for 2 ½ seconds to prevent bleeding. Also, correct cauterization will prevent undesirable re growth of the beak.
- Avoid burning the birds tongue. This can be done by pressing a finger under the throat of the chicks during beak-trimming.





*Properly Debeaked Pullet*



*Properly Debeaked Adult Bird*

Taken from Tech-Voc. Module

## Culling

Culling is the process of removing animal having undesirable characteristic.



Courtesy of MMFSL Agri. Class

The presence of non-layers or poor layers reduces the efficiency of a laying flock. These birds require the same time and attention as the good layers but are inefficient in converting feeds into eggs. Immediate culling of these undesirable birds is necessary to maintain efficiency of the flock.

## **Reasons for Culling Hens**

1. To eliminate the non-layers and rid the flocks of unprofitable hens
2. To save on feeds
3. To give the remaining hens left room in the house and more feeding space
4. To increase egg production of each hen
5. To reduce labor cost
6. To increase profit
7. To help guard against spread of disease

## **When to Cull**

Culling should be practiced throughout the year.

## **Things to Know Before Culling:**

1. Time of hatching
2. Time bird began to lay ( point of lay)
3. Length of time in production (productive life)
4. Rate of molt – whether slow, moderate or rapid
5. Size of eggs
6. Rate of egg layed ( egg production)
7. Management practices

## May Include:

- Ocular/closer observation of the flock
- Consider birds for further evaluation if manifesting the following:
  - a. pale comb, small and scaly
  - b. shank and beak are yellowish

## How to Cull

1. Use a catching crate to confine the hens.
2. Set the crate in front of the door used by the hens and drive them into the crate.
3. Fishing nets may also be used in catching hens in range.
4. Culling is recommended during night time to minimize stress in the flock.



Courtesy of MMFSL Agri. Class



## What to Look For?

Guide for culling (Good layer vs. poor layer)

### For Observation

<u>Parts</u>	<u>Good layer</u>	<u>Poor layer</u>
1. Comb	bright red, expanded	dull or pale, small and scaly
2. Eyes	bright	light, sunken
3. Ear lobes	bleach (whitish)	yellow
4. Beak	bleach (whitish)	yellow
5. Plumage	worn, soiled closed	new, glossy,
6. Feather	clean,	loose feather

### For Further Observation

6. Abdomen	soft, pliable; more than 3 fingers between full, less than 3 fingers the pubic bone between pubic bone
7. Pubic bone	more than 2 fingers less than 2 fingers spread
8. Vent	large, dilated, oblong small, contracted, rounded, dry yellow
9. Shank	bleach yellow

## **Record Keeping**

To monitor the performance of the flock, accomplish and keep the following records during the entire laying period.

1. Number of layers at housing time and daily inventory
2. Mortality/ culling rate
3. Cause of mortality/culling
4. Feed intake, total consumption and daily intake per bird
5. Body weight
6. Daily egg production and egg sizes
7. Lighting program
8. Medication
9. Vaccination
10. Incidence of diseases
11. Any abnormal incidence such as power failure, typhoons, hot weather, etc.

Records must also be kept on expenditures (expenses) on feeds, housing, equipment cost and depreciation, repairs, labor, electricity, medicines and revenues (income) from sales of eggs, collected manures, feed bags, and the like.

## **Molting**

Molting is the periodic shedding of feathers, which is then replaced by new growth. During molting, most hens stop producing eggs until after the molt is completed. Therefore, molting indicates the efficiency of layer to produce egg. This can determine a good or poor layer. A layer shed feathers at early age is a poor layer. A layer that shed feathers late is a good layer. Shedding of feathers or molting can last from three (3) to four (4) weeks.

## REFLECT AND UNDERSTAND

Answer the questions below. Write only the letter of your answer in your activity notebook.

1. Light control is a valuable tool for \_\_\_\_\_.
  - a. controlling sexual maturity
  - b. ensuring high egg production
  - c. increasing egg size
  - d. controlling sexual maturity, ensuring high egg production and increasing egg size
  
2. Debeaking or beak trimming is the most effective method of \_\_\_\_\_.
  - a. avoiding cannibalism
  - b. minimizing feed wastage
  - c. prevent shedding of feathers
  - d. avoiding cannibalism, minimizing feed wastage and prevent shedding of feathers
  
3. Which is a sign of a good layer?
  - a. Dull and somewhat cloudy eyes
  - b. Late molter
  - c. Shrunken and dull comb
  - d. Small ,dry and round vent
  
4. How do you catch laying hens during culling?
  - a. Catch them in the middle of the night.
  - b. Feed the bird to facilitate catching.
  - c. Run after the birds inside the poultry house until they get tired.
  - d. Use catching create to confine birds.

5. What factors should be considered when culling?
- a. Length of production
  - a. Rate of laying
  - b. Rate of molting
  - d. Length of production and the rate of laying and molting

## **TRASFER**

Visit a poultry farm engaged in egg production in your community. Interview the owner about how he maintains uniformity of the flock, lighting program for his laying hens and health and sanitation practices. Request the owner to demonstrate proper procedure of culling. Ask the farm owner to assist you in culling.

## **IV. SUMMATIVE ASSESSMET**

Read carefully the questions below. Write the letter of your choice on your answer sheet.

1. Forced or temporary molting may be caused by \_\_\_\_\_.
- a. sudden change of management
  - b. sudden visit of people in the project
  - c. sudden change in feed
  - d. sudden change of caretaker
2. Which is NOT a purpose of culling?
- a. To eliminate non-productive birds
  - b. To save and economize feeds
  - c. To give birds left more room in the house
  - d. To reduce the number of birds in the house

3. To monitor the performance of the flock, raiser or caretaker should accomplish and keep\_\_\_\_\_ .
- visitation plan
  - marketing data
  - management record
  - farm output
4. The height of light bulbs from the floor should not be more than
- 2.4 meters
  - 1.4 meters
  - 3.4 meters
  - 4.4 meters
5. What does culling mean?
- Removal of un productive birds from the flock
  - Selecting a good quality birds
  - Raising quality birds
  - Removal, selecting and raising birds
6. Which is NOT a proven care and management practice of poultry?
- Avoid overcrowding.
  - Follow approved practices.
  - Keep flock healthy.
  - Keep birds eating all the time.
7. How do you observe strict sanitary management practices in your poultry farm?
- Keep away from diseased flock.
  - Invite visitors and buyers to visit your project.
  - Keep on introducing new bird in the flock without assessing their health.
  - Stop giving medication to the flock even if there is an outbreak of disease.

8. Which is the most effective method of preventing cannibalism, feather picking or picking out
- a. Culling
  - b. Nail cutting
  - c. Debeaking
  - d. Segregation
9. Starting from the recommended lighting at 18 weeks of age, light hours should be increased by
- a. 15 minutes every week
  - b. 20 minutes every week
  - c. 25 minutes every week
  - d. 30 minutes every week
10. Which is a sign of a good layer?
- a. early molter
  - b dull and somewhat cloudy eyes
  - c. small ,dry, and round vent
  - d. late molter
11. How do you catch laying hens during culling?
- a. Use a catching crate to confine the birds.
  - b. Run after the birds inside the poultry house until they get tired.
  - c. Feed the bird to facilitate catching.
  - d. Catch them in the middle of the night.
12. Which refers to a condition where birds form a habit of feather picking, to the extent of eating their companions if not controlled?
- a. Cannibalism
  - b. Toe picking
  - c. Molting
  - d. All of the above

13. Check for overcrowding, inadequate feeder, water space, and condition in the flock if the uniformity of stocks is \_\_\_\_\_ .
- a. less than 80 %
  - b. less than 90 %
  - c. less than 95 %
  - d. less than 85 %
14. The maximum day light requirement of layers at maturity is \_\_\_\_\_ .
- a. 12-13 hours
  - b. 14-15 hours
  - c. 15-16 hours
  - d. 16-17 hours
15. Listed below are correct waste management practices, EXCEPT \_\_\_\_\_.
- a. utilization of manure as plant fertilizer
  - b. use of manure for biogas production
  - c. making canals from poultry farm to rivers
  - d. use of manure as fish feed

## V. SUMMARY/FEEDBACK

Maintaining proper health and sanitation practices in poultry production can provide the raiser an assurance of a simple yet effective operational process that will ensure success of the project.

A successful project needs the ability of the raiser in pre- and post-harvest knowledge and skills to make sure that the product will turn into profit, which the next module will provide.

### GLOSSARY

<b>Cannibalism</b>	– a condition where birds form the habit of feather picking to the extent of eating their companions if not controlled
<b>Cauterize</b>	– burning wounds or injuries by means of a heated metal to prevent further infection
<b>Culling</b>	– the process of removing unproductive birds from the flock
<b>De-beaking /beak trimming</b>	– removing of a part of the upper and lower beak of the bird
<b>Flock uniformity</b>	– a more or less equal weight of birds in the flock
<b>Lighting</b>	- having abundant/sufficient light or illumination
<b>Molting</b>	- refers to the shedding of feathers among poultry birds
<b>Pigmentation</b>	- color
<b>Pliable</b>	– flexible
<b>Pubic bones</b>	– lower part of the abdomen
<b>Vent</b>	– an opening in the body, commonly small, for the passage of fluid, gases



## **RESOURCES**

Spray tank

Disinfectants

Boots

Hand gloves

Cleaning materials

Antibiotics

Vitamins

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Tech-Voc Modules (raise poultry)