

# Poultry Production (Pre- and Post- Harvest Activities) Module 6

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**We value your feedback and recommendations.**

**Department of Education  
Republic of the Philippines**

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

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<b>Content Standard</b>	<b>Performance standard</b>
The learner demonstrates independently the knowledge, skills and attitudes required in the successful pre- and post-harvest activity in poultry production	The learner independently performs pre-and post-harvest activities in poultry production properly.

## **MODULE 6: PRE AND POST HARVEST ACTIVITIES**

### **I. INTRODUCTION**

This Module is intended to provide the learners with knowledge, skills and attitudes that can guide them in undertaking the activities about proper pre- and post-harvest activities in poultry production. This Module also aim to give the learners a chance to undergo actual venture in harvesting and marketing of poultry products to turn the produce of the flock into profit and not into junk.

This Module contains pre-assessment, summative assessment and activities that also lead the learners and prospective raisers to assess their ability and capability in handling poultry products.

### **II. LEARNING COMPETENCIES**

At the completion of this Module, the learners should be able to:

1. demonstrate proper harvesting of eggs using appropriate materials;
2. apply and observe proper handling, sorting, storing and marketing poultry products: and
3. compute and analyze records kept to evaluate the viability of the project.

### **III. PRE- ASSESSMENT**

Let us find out how much you already know about handling, sorting, storing and marketing poultry products. Select the letter of your answer and write it in your activity notebook.

1. Among the choices below, select the biggest and heaviest eggs.
  - a. Extra large
  - b. Jumbo
  - c. Medium
  - d. Large
2. The ideal temperature for storing eggs is\_\_\_\_\_.
  - a. 13 – 15°C
  - b. 13 – 20°C
  - c. 15 – 25°C
  - d. 15 – 30°C
3. Which is NOT true when maintaining high quality eggs for the market?
  - a. Dirty eggs must be washed and rinsed.
  - b. Dirty eggs should be cleaned with lukewarm water.
  - c. Dirty eggs should be washed with cold water and dried under the sun.
  - d. Dirty eggs should be cleaned before marketing.
4. Which is TRUE about clean and quality eggs?

Quality eggs \_\_\_\_\_.

  - a. are long stored eggs.
  - b. command a better price.
  - c. command a lower price.
  - d. have poor hatchability.
5. Classifying eggs according to their sizes and quality is called\_\_\_\_\_.
  - a. grading
  - b. harvesting
  - c. marketing
  - d. storing
6. The weight of a peewee egg is\_\_\_\_\_.
  - a. below 41 grams
  - b. 41-47 grams
  - c. 48-54 grams
  - d. above 68 grams
7. Egg should be stored in a room with relative humidity of\_\_\_\_\_.
  - a. 60-65%
  - b. 65-70%
  - c. 70-75%
  - d. 70-80%

8. Eggs should be collected from the laying house at least\_\_\_\_\_.
- a. once a day
  - b. 1-2 times a day
  - c. 2–3 times a day
  - d. 3–4 times a day
9. For an appropriate material for egg collection, one may use\_\_\_\_\_.
- a. empty cans
  - b. empty sacks
  - c. woven basket
  - d. wooden box
10. Eggs must be stored in the egg tray \_\_\_\_\_.
- a. with small end down
  - b. with small end up
  - c. upside down
  - d. in any position

## **LESSON 1**

### **HARVESTING OF TABLE EGGS**

To maintain the quality of harvested eggs, we should follow proper handling during harvesting, sorting, and storing to ensure maximum production and to have quality products for the market.

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

1. identify appropriate materials used in harvesting eggs;
2. harvest eggs using appropriate materials;
3. demonstrate proper handling of harvested eggs according to the standard operation procedures; and
4. appreciate the importance of proper handling poultry products.

#### **PROCESS**

##### **Gather Eggs Regularly**

Proper harvesting is done to have quality egg for the market. Use an open woven basket for gathering and egg grader for sorting. It is good to collect eggs two to three times a day to avert the danger of being broken or becoming extremely dirty by hens treading on them. Any violent motion on the egg such as shaking and jarring should be avoided as this can rupture the internal membranes and the eggs became useless for incubation. Eggs not intended for hatching should be set aside to be used as table egg and for selling to the market.

To maintain the quality of eggs, dirty eggs must be washed and rinsed with clean lukewarm water within the hour they are picked from the nest. It is important to clean dirty eggs before they are brought to the market so that they command a better price.



Courtesy of MMFSL Agri. Class

After harvesting the egg, it is important to sort/classify them according to sizes. To small farm units, a manual egg-grader is sufficient.

However, in large layer operations, automatic egg-grader machines are needed. The eggs should also be sorted according to the condition of their content, cleanliness, shape, and color of the eggshell.

Eggs must be stored with the small end down on clean trays. Ideally, eggs must be stored in a room of 13-15°C (55-56°F) with 70-75 % humidity to control growth of molds and fungi caused by high humidity. Walls and floors of the room should be scrubbed frequently with a suitable disinfectant. Always keep the egg room clean and free from odorous materials. Eggs can easily absorb odors from these materials.

To maintain the quality of eggs we should follow proper handling during harvesting, sorting, and storing to ensure maximum profit.



## REFLECT AND UNDERSTAND

Read carefully the following questions. Write only the letter of your correct answer in your activity notebook.

1. Eggs must be stored in the egg tray \_\_\_\_\_.
  - a. with small end down
  - b. with small end up
  - c. upside down
  - d. in any position
2. To avert the danger that eggs might be broken and get extremely dirty, eggs should be collected \_\_\_\_\_.
  - a. 2–3 times a day
  - b. 3–4 times a day
  - c. once a day
  - d. every time they are laid
3. Shaking or jarring the eggs may \_\_\_\_\_.
  - a. clean the eggshells
  - b. improve the quality
  - c. increase the weight of the eggs
  - d. rupture the internal membranes
4. What management practice is vital prior to marketing of eggs?
  - a. Grading
  - b. Jarring
  - c. Shaking
  - d. Storing
5. The eggs should be sorted according to the \_\_\_\_\_.
  - a. color of the eggshells
  - b. condition of their content
  - c. size
  - d. day of harvest

## **TRANSFER**

1. Proceed to the school poultry house and demonstrate proper harvesting, sorting, and storing eggs using appropriate materials and following the procedures learned in this lesson.
2. Write a short paragraph about your most exciting experience as you perform harvesting, sorting, and storing eggs.

## **GLOSSARY**

Harvesting	- collecting produce at the right time
Gathering	- act of harvesting
Storage	- safekeeping for future use
Egg grader	- device used in sorting eggs

## **RESOURCES**

Woven basket  
Egg trays  
Egg grader  
Egg boxes  
Egg cart  
Dust coats  
Hand gloves  
Boots

## **REFERENCES**

Anacleto B. Coronel, MS., DVM.,  
A Primer on Animal Husbandry, Verde Bookstore, 1971

Technology and Livelihood Education III,  
Agriculture and Fishery Technology  
Animal Production, SEDP SERIES, 1992

Tech-Voc. Module (raise poultry)

## **LESSON 2**

### **MARKETING OF POULTRY PRODUCTS USING APPROPRIATE MATERIALS**

This lesson will provide the learners information on how to prepare the poultry products for proper sorting, storing and marketing.

This lesson also deals with the profitable way of marketing poultry products.

Marketing involves knowledge on the law of supply and demand. When the supply is low and the demand is high, and the price is high. To expect returns, plan the right time of producing more. Do this specially when the price of the product is high and there is great demand. Always remember that profit making is the goal of any business venture.

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

After this lesson, learners should be able to:

1. classify eggs in accordance with the industry standard;
2. observe and conduct proper storage of eggs in accordance with the industry standard;
3. identify possible market for the products;
4. market the products to prospective costumers; and
5. develop awareness in the proper disposal of products and dignity of labor

## PROCESS

The standard for size set by the Bureau of Product Standards are the following;

Size	Weight of egg
Peewee	below 41grams
Small	41-47 grams
Medium	48-54 grams
Large	55-61 grams
Extra large	62-68 grams
Jumbo	Above 68 grams



Sorting and grading eggs (Courtesy of MMFSL Agri. Class)



Graded eggs (taken from Tech-Voc. Module)

## **MARKETING EGGS**

A greater portion of eggs produced in the farms, backyards, and other sources should be fresh when marketed. This means that the eggs have not been handled unnecessarily nor have been treated. However, if production is high and there is less demand for eggs in the market, surplus eggs may be preserved in cold storage for future use. Other egg producers practice other preservation methods like the use of lime water and immersion of eggs in boiling water for a short period.

To be successful in egg production, it is not enough to produce eggs at a high level of efficiency. It is important to establish a marketing scheme where outlet of your produce is always available especially when layers are raised commercially. Where chickens are raised in small number, eggs produced may be used for home consumption or sold directly to consumers.

Whether eggs are produced in large or small quantities, a method should be adopted to ensure the availability of fresh eggs to the consumers.

## **MARKETING BROILERS**

Poultry raisers consider marketing as a part of the production cycle. To have adequate income from broiler production, marketing should be efficiently and effectively planned. One must survey good market outlets to establish a successful marketing system.

The most profitable way to market broilers is by directly selling live broilers to the consumers. The product of most small-scale broiler projects are sold in this manner. Better profit is attained by eliminating the services of middlemen and promptly disposing the broilers as soon as they reach the ideal market age.



Courtesy of MMFSL Agri. Class

## **When to Harvest Broilers?**

Before, broilers were known as 45-days in the market because they are harvested in 45 days. Today, commercial farms of broiler integrators harvest their stock as early as 35 days.

## **Importance of Ready Market for Broilers**

Ready market for broilers should be determined even at the very start of the project for the following reasons:

1. broilers should be marketed at the right age for this will give high quality meat;
2. broilers with high quality meat is preferred by consumers;
3. it helps the raisers avoid additional investment;
4. it gives the raisers chance for another batch of broilers to raise; and
5. this can give higher income for the raiser

## **MARKET TYPES OF BROILER**

The target weight for broilers nowadays is 1.55 to 1.6 kilograms in 35 days. However, market types of broilers are classified into three groups, according to weight, namely: large, medium, and small. A pair of large broilers weighs from 3.75 to 4.0 kgs. or 1.87 to 2 kgs. each. Large broilers are used extensively as fryers and are in great demand during the holiday seasons. Medium broilers weigh from 1 to 1.5 kgs each. The medium broiler is very popular and commands the highest price during the broiler season. Small broilers weigh from ½ to 1.0 kilogram. This grade of broiler is the most expensive for the consumer and is used only in hotels and restaurant trade. Among the three types, small broilers are the most expensive from the stand point of both supply and demand, especially during the season of high prices.

It should be emphasized though that commercially, it is not recommended for the flock to stay in the farm longer than 35 days since the animals will only consume feeds given them without much corresponding increase in weight.

## **Desirable Features of Broilers for Market**

- a. It should be full-feathered and well filled out, especially the breast and thigh.

- b. It should have a compact form.
- c. Its meat should be of good quality (tender, juicy, and free from excessive connective tissue).
- d. It should have yellow skin and shank.
- e. It should be light or white-feathered.
- f. First class broilers have small comb and wattles, shanks and feet and short legs.

## **Marketing Broilers**

- 1. Live – In this system, broilers are marketed by getting the individual or group live weight.
- 2. Dressed – In this system, the raiser will get the carcass weight of the dressed chicken for marketing.
- 3. Dressing Percentage – This is the weight of the animal after slaughter removing all the internal organs as well as inedible portions over the live weight multiplied by one hundred (100). Ideal dressing percentage for chicken is more or less seventy five percent (75%).

## **REFLECT AND UNDERSTAND**

Directions: Choose the best answer. Write only the letter of the correct answer in your activity notebook.

- 1. Market types of broilers are classified into three. Which is NOT included?
  - a. 0.5 to 1 kilogram
  - b. 1 to 1.5 kilograms
  - c. 1.87 to 2 kilograms
  - d. more than 2 kilograms
  
- 2. Large broilers are used extensively for\_\_\_\_\_.
  - a. broilers
  - b. fryers
  - c. Layers
  - d. Fattener

3. Which is NOT a desirable feature of broilers for market?
  - a. Big comb, wattles, shanks, and feet
  - b. Full feathered and well-filled out breast and thighs
  - c. Light or white-feathered
  - d. Yellow skin and shanks
  
4. The most profitable way to market broilers is \_\_\_\_\_.
  - a. direct selling to consumers
  - b. selling to middlemen
  - c. selling directly to the market
  - d. selling it dressed to the market
  
5. Broiler nowadays are harvested when they reach \_\_\_\_\_.
  - a. 30 days
  - b. 35 days
  - c. 40 days
  - d. 45 days

## **TRANSFER**

1. Visit local market to determine the sale of eggs. Find out the consumers' demand and the price per egg. Compare the prices of extra large, large, medium, and small eggs. Which size of eggs is most patronized by consumers? Draw a conclusion and discuss this in the class.
  
2. Market given poultry products inside or outside the school compound. Report the result to the teacher for evaluation.
  
3. Visit the school's broiler project and identify which among the stocks are ready for market (Age and desirable features for marketing broilers should be the basis of determining birds ready for market).
  
4. Get the live weight of the broilers ready for marketing. Record the total weight of the broilers after being slaughtered. Compute for dressing percentage. Report the result to the teacher for evaluation.



#### IV. SUMMATIVE ASSESSMENT

Direction: Let us find out how much you already know about handling, sorting, storing and marketing eggs. Select the letter of your answer and write it on your answer sheet.

1. Among the choices below, select the biggest and heaviest eggs.
  - a. Extra large
  - b. Jumbo
  - c. Large
  - d. Medium
2. The ideal temperature for storing eggs is\_\_\_\_\_.
  - a. 13 – 15°C
  - b. 13 – 20°C
  - c. 15 – 25°C
  - d. 15 – 30°
3. Which is NOT true when maintaining high quality eggs for the market?
  - a. Dirty eggs must be washed and rinsed.
  - b. Dirty eggs should be cleaned with lukewarm water.
  - c. Dirty eggs should be washed with cold water and dried under the sun.
  - d. Dirty eggs should be cleaned before marketing.
4. Which is TRUE of clean and quality eggs?
  - a. Buyers prefer to buy long stored eggs.
  - b. They command a better price.
  - c. They command a lower price.
  - d. They have poor hatchability.
5. Classifying eggs according to their sizes and quality is called\_\_\_\_\_.
  - a. grading
  - b. harvesting
  - c. marketing
  - d. storing

6. The weight of a peewee egg is\_\_\_\_\_.
  - a. below 41 grams
  - b. 41 -47 grams
  - c. 48 -54 grams
  - d. above 68 grams
  
7. Egg should be stored in a room with relative humidity of\_\_\_\_\_.
  - a. 60-65%
  - b. 65-70%
  - c. 70-75%
  - d. 70-80%
  
8. Eggs should be collected from the laying house at least\_\_\_\_\_.
  - a. once a day
  - b. 1 -2 times a day
  - c. 2 – 3 times a day
  - d. 3 – 4 times a day
  
9. For an appropriate material for egg collection, one may use\_\_\_\_\_.
  - a. empty cans
  - b. empty sacks
  - c. woven basket
  - d. wooden box
  
10. Eggs must be stored in the egg tray \_\_\_\_\_.
  - a. with small end down
  - b. with small end up
  - c. upside down
  - d. in any position

## V. SUMMARY/FEEDBACK

The lessons taken up by the learners in this Module are useful in performing the task of proper harvesting, handling, sorting, storing, and marketing poultry products for a successful conversion of farm products into profit. On the other hand, maximum production may only be realized if the raiser can prevent and control possible occurrence of pest and diseases in the farm. That is the right reason for the learners to take up the next lesson.

## GLOSSARY

<b>Pewee</b>	-	the smallest size of the egg of a chicken
<b>Demand</b>	-	refers to needs or desires
<b>Supply</b>	-	good or commodities
<b>Market</b>	-	place where the goods are sold

## RESOURCES

Woven basket	Egg cart
Egg trays	Dust coats
Weighing balance	Hand gloves
Egg boxes	Boots

## REFERENCES

- Anacleto B. Coronel, MS., DVM., A primer on Animal,  
Verde Bookstore, 1971
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