



# **Animal production Level**

**NTQF Level -II**

## **Learning Guide 14**

**Unit of Competence: Assist basic husbandry practice of poultry**

**Module Title: Assisting basic husbandry practice of poultry**

**LG Code: AGR APR2 M05 L01 LG14**

**TTLM Code: AGR APR 2 TTLM 0919v1**

**LO 1: Prepare for poultry raising activities**



<b>Instruction Sheet</b>	<b>Learning Guide 14</b>
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This learning guide is developed to provide you the necessary information regarding the following content coverage and topics –

- Identifying required materials, tools and equipment
- Checking materials, tools and equipment and report faulty items
- Using correct manual handling techniques when loading and unloading
- Selecting and checking Suitable Personal Protective Equipment (PPE)
- Following the OHS requirements

This guide will also assist you to attain the learning outcome stated in the cover page.

Specifically, upon completion of this Learning Guide, you will be able to –

- Identify required materials, tools and equipment
- Check materials, tools and equipment and report faulty items
- Use correct manual handling techniques when loading and unloading
- Select and check Suitable Personal Protective Equipment (PPE)
- Follow the OHS requirements

#### **Learning Instructions:**

1. Read the specific objectives of this Learning Guide 14.
2. Follow the instructions described in number 1 to 6.
3. Read the information written in the “Information Sheet (1, 2, 3, 4 and 5) in page 2,6,8,10 and 12 respectively
4. Try to understand what are being discussed. Ask you teacher for assistance if you have hard time understanding them.
5. Accomplish the “Self-check 1, Self-check t 2, Self-check 3, Self-check 4, and Self-check 5” in page, 5, 7, 9, 11 and 15 respectively.
6. If you earned a satisfactory evaluation proceed to “the next topic”. However, if your rating is unsatisfactory, see your teacher for further instructions or read back the Learning guide information sheets 1-5. Submit your accomplished Self-check. This will form part of your training portfolio.



Information sheet-1	Required materials, tools and equipment for poultry raising activities.
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## 1.1. Definition of terminologies

**Poultry:** refers to all birds kept for the production of eggs and meat for human consumption and for their feathers.

**Layers:** chickens raised to be egg-layers

**Broilers:** chickens kept for meat production

**Chicks:** young chicken between 0-8 weeks

**Pullets:** female chickens in their first year of lay, or prior to their first molt

**Hens:** female chickens in their second year of lay, or after their first molt

**Cockerels:** young male chicken before sexually matured

**Cock:** sexually matured male chicken used for breeding purpose

**Rearing** is the care of chicks from about eight weeks of age to the point they begin to drop eggs, i.e. point of lay.

**Egg :** a hard shelled oval thing from which a young bird is born.

**Candling** is a process of examining fertile eggs against a strong beam of light preferably emerging through a small hole or a narrow slit

**Incubation:** the management of fertilized egg to ensure the satisfactory development of the embryo inside it into a normal chick. It may be achieved by the natural method, with the hen sitting on eggs, or by using special machines known as incubator

**Hatching:** - the bringing forth of young chicks from the egg by natural or artificial incubation

**Brooding** is the process of caring for young chicks from day-old to eight weeks of age.

**De-beaking/Beak trimming:** a practice which involves partial removal of the points of the beak to prevent vice habits such as pecking, feather-pulling, cannibalism and egg eating.

**Feed** is a mixture of feedstuff blended/processed in a form which is acceptable to animals. It is merely the carrier of nutrient and potential energy in a ration.

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## 1.2. Role of Poultry production

- Poultry meat and eggs are essential foods. And poultry is appetizing and popular as the meat and eggs are highly digestible and nutritious
- The income from poultry keeping is distributed throughout the year.
- They are useful for religious, recreation and game purposes.

## 1.3. Site selection criteria

In planning a poultry farm the most important points to considered are:

- Well-drained land, this is especially important where litter systems are used.
- Within sight of owner / supervising personnel.
- Away from other chicken houses to reduce the spread of diseases.
- Noisy areas should be avoided.(garage ,railway and road)
- The housing of the house should take advantage of natural air movement
- No direct sunshine entering the house, placing the house in an east-west direction is best.
- Accessible to transport and communication

## 1.4. Identifying required materials, tools and equipments for poultry raising activities.

Materials, tools and equipment used for poultry raising activity may include;

- Bedding materials – are materials used in poultry house for covering the floor to overcome moisture and heat stresses. These are: Old newspaper Saw dust, Rice hulls coffee pulp and etc.
- Disinfectants:- are chemical substance that is used to kill harmful germs and bacteria: a substance used to disinfects something.
- Feeds
- Litter materials: are materials used as a bedding for animals and/ or used to absorb the urine and feces of animals
- Generator: a machine that produces electricity
- Heater: a device that imparts heat or holds something to be heated.
- Electric lamps: a device that produce light.
- Incubator: a device that is used to keep eggs warm before they hatch.
- Weighing scale: an instrument or machine used for weighing.



- Pail: a usually cylindrical container with handle.
- Wheel barrow: a cart with two handles, large bowl and usually one wheel that is used for carrying heavy loads
- Feed bin: a box that is used for storing or keeping of feeds.
- Feed cart: a heavy usually horse drawn 2 wheeled used for farming or transporting things.
- Plastic drinking jars: are plastic materials used for watering chicks
- Waterer and feeder
- Egg trays: are thin, flat, and often rectangular piece of plastic, wood, etc that are used for holding or carrying of eggs.
- Infrared gas brooder: are materials used for producing rays of light during brooding
- Debeaker: is a manual or electrical materials used to cut the beak of bird to prevent cannibalism.
- Feed cart Fabricated layer cages: a box made up of wire, or metal bars in which people keep feed of birds
- Knapsacks sprayer: is a material used to spray liquid materials usually disinfectants
- Egg grader: is a material used to measure the quality of eggs
- Feed scoop: are something that are shaped like bowl or bucket used for pickup poultry feed
- Hover: material that float in air without moving in any direction during heat supply.
- Chick guard: plastic, metal sheet or wood used to keep chickens in one area cohesively and protect them
- Curtains: hanging materials used to cover window to protect the entry of air, light and etc
- Rake: equipment used to for gathering of waste materials from poultry house
- Shovel equipment used to for gathering of waste materials from poultry house
- Spade- equipment used to for digging and gathering of waste materials from poultry house
- Drenching guns is an instrument used to provide liquid drugs.
- Dressing equipment: a piece of cloth used to cover a wound.



- Portable coolers: movable materials that is used for cooling in poultry farm..
- water pump: is material used to pump water from its source
- Waste disposing equipment – materials used for disposing of waste, dead chicken, contaminated feed etc. away from poultry farm.



<b>Self-Check -1</b>	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. List down the necessary materials used as a bedding poultry house? (4 points)
2. Mention 8 materials and their use. (8 points)

**Note: Satisfactory rating - 12points                      Unsatisfactory - below 12 points**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = _____
Rating: _____

Name: \_\_\_\_\_

Date: \_\_\_\_\_

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<b>Information sheet-2</b>	<b>Check all materials, tools and equipments with insufficient or faulty items</b>
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### **2.1. Check all materials, tools and equipments**

Finding the right materials, tools and equipments among different items is the most critical aspect in poultry raising activity. All the items should be checked before utilization for their

- safety; right material,
- no damage and
- Appropriate amount for a specific activity.

### **2.2. Report insufficient or faulty items**

Damaged, broken, and material which are not fit for poultry raising should be identified and reported to the responsible person in time.





<b>Self-Check -2</b>	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. What type of materials and equipment should be reported to the responsible body? (9 points)

**Note: Satisfactory rating – 9 points                      Unsatisfactory - below 9 points**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = _____
Rating: _____

Name: \_\_\_\_\_

Date: \_\_\_\_\_

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<b>Information sheet-3</b>	<b>Use correct manual handling techniques</b>
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### 3.1. Use correct manual handling techniques during loading and un loading

Loading and unloading facilities are a critical in the process of transport. When loading materials care should take not to break and make damage the items. Appropriate handling of materials, tools and equipments to minimize damage self, others, load and vehicle. Suitable training will normally need to be given on correct lifting, Loading& techniques of materials & poultry.

During loading and unloading of materials, tools, equipment and poultry the following points should be considered:

- Poultry should be healthy and in good condition while transporting
- Separate different classes of poultry (day old, pullet, layer...) during transport.
- Isolate diseased or suspected poultry during transportation.
- Heavier materials should be loaded at the bottom of the vehicle.
- Flammable material should be given a precaution.
- When loading different material the same material should be loaded at the same sides
- Use ramps when loading and unloading of materials, tools and equipment.

Procedures for loading & unloading materials:

- Properly design loading/unloading areas
- Park vehicles and conduct loading/unloading only in designated loading/unloading areas
- Clean loading/unloading areas regularly to remove potential sources of pollutants.
- Reduce exposure of materials to rain.



- Use drip pans underneath hose and pipe connections and other leak-prone spots during liquid transfer operations, and when making and breaking connections.
- Inspect equipment regularly
- If possible, conduct loading and unloading in dry weather.



<b>Self-Check -3</b>	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. What are points to be considered during loading and unloading of materials, tools, equipment and poultry? (12pts)

**Note: Satisfactory rating – 12 points      Unsatisfactory - below 12 points**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = _____
Rating: _____

Name: \_\_\_\_\_

Date: \_\_\_\_\_

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Information sheet-4	<b>Selecting and checking suitable personal protective equipment</b>
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#### **4.1. Select suitable personal protective equipment.**

There are different types of materials, tools and equipments and supplies to perform different activities in poultry raising activity. Therefore, identifying, selecting, using and preparing facilities, supplies according to the working activity are very important aspect in poultry work.

Personal protective equipment include

- Overalls
- Gloves
- Safety goggles
- plastic boots/shoes
- Sunhats
- Respiratory musk
- Aprons,

Protective clothing should be selected to prevent skin contact with contaminated materials or environments. Consideration should be given to the type of work being performed by the worker when selecting personal protective clothing.



<b>Self-Check -4</b>	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. List down PPE used in poultry raising (6pts)
2. Write the advantages of using suitable PPE.(4pts)

**Note: Satisfactory rating – 10 points      Unsatisfactory - below 10 points**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = _____
Rating: _____

Name: \_\_\_\_\_

Date \_\_\_\_\_

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<b>Information sheet-5</b>	<b>Following OHS requirements</b>
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### **5.1. OHS Hazards in raising poultry**

Personnel working in the poultry industry are permanently exposed to hazards. These have either a physical, chemical or biological nature. Proper management is needed to avoid accidents and to keep the staff motivated..

According to the International Labor Organization (ILO), health hazards in poultry working environments are categorized as accidental, physical, chemical, and biological. Here are just a few examples for each category mentioned by this organization

#### **5.1.1. Physical**

- Exposure to high levels of noise.
- Long-time exposure to heat and cold.
- Skeletal problems resulting from lifting and moving of animals, feed bins (bags), egg collection.

#### **5.1.2. Chemical**

- Respiratory problems resulting from exposure to dust, which is composed of feathers, dander, micro-organisms, etc.
- Respiratory, skin, and eye diseases due to exposure to gaseous chemicals.(e.g. NH<sub>3</sub>, H<sub>2</sub>S, CO<sub>2</sub>, CO, and CH<sub>4</sub>).
- Exposure to disinfectants, detergents, formaldehyde and pesticides.

#### **5.1.3. Biological**

- Zoonotic infections. These diseases are transmitted between birds and humans & they also are transmitted from animals to humans and include bacterial, viral, fungal, and parasitic diseases. Salmonellosis, campylobacteriosis, chlamydiosis, tuberculosis, Newcastle Disease, and avian influenza are amongst the most common zoonotic diseases transmitted from poultry to humans. Poultry workers are at a greater risk of being affected by these diseases



## 5.2. OHS requirements

Work task is provided according to Occupational Health and Safety (OHS) requirements. This may include:

- Using of relevant protective clothing and equipment,
- Use of tooling and equipment,
- Creating conducive working environment and safety handling of material,
- Using First aid kit to provide aid services
- Hazard control and hazardous materials and substances.etc,
- Following Occupational health and safety procedure designated for the task
- Checking and fulfilling required safety devices before starting operation





<b>Self-Check -5</b>	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. List down the three types of hazards (3pts)
2. Write the Occupational Health and Safety (OHS) requirements in work place.(7pts)

**Note: Satisfactory rating – 10 points      Unsatisfactory - below 10 points**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = _____
Rating: _____

Name: \_\_\_\_\_

Date \_\_\_\_\_

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## References

CAB International 1987, Manual on poultry production in the tropics Wallingford, Oxon, United Kingdom

French, K.M. 1984, Practical Poultry Raising Peace Corps, Trans- Century Corporation, Washington D.C.

G.C Banerjee (2000) A text book of Animal Husbandry. 8<sup>th</sup>ed Oxford & IBH publishing CO. Pvt.ltd, New Delhi / Calcutta, India