



Poultry Production

Level -II

Learning Guide -45

Unit of Competence: -Identify and sexing poultry

Module Title: -Identifying and sexing poultry

LG Code: AGR PLP2 M13 LO1-LG-45

TTLM Code: AGR PLP2 TTLM 1219v1

LO 1: Prepare to sex poultry



Instruction Sheet	Learning Guide -45
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This learning guide is developed to provide you the necessary information regarding the following **content coverage** and topics –

- Interpreting work to be undertaken
- Selecting, checking, and maintaining tools, equipment and PPE
- Identifying Occupational Health and Safety (OHS) hazards, assessing risk and implementing suitable controls

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 –**

- Interpret work to be undertaken
- Select, check, and maintain tools and equipment and PPE
- Identify Occupational Health and Safety (OHS) hazards, assessing risk and implementing suitable controls

Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described in number 4 to 9.
3. Read the information written in the “Information Sheets 1”. Try to understand what are being discussed. Ask you teacher for assistance if you have hard time understanding them.
4. Accomplish the “Self-check 1” in page 5.
5. Ask from your teacher the key to correction (key answers) or you can request your teacher to correct your work. (You are to get the key answer only after you finished answering the Self-check 1).
6. If you earned a satisfactory evaluation proceed to “Information Sheet 2”. However, if your rating is unsatisfactory, see your teacher for further instructions or go back to Learning Activity #1.
7. Submit your accomplished Self-check. This will form part of your training portfolio.



8. Read the information written in the “Information Sheet 2”. Try to understand what are being discussed. Ask you teacher for assistance if you have hard time understanding them.
9. Accomplish the “Self-check 2” in page 7.
10. Ask from your teacher the key to correction (key answers) or you can request your teacher to correct your work. (You are to get the key answer only after you finished answering the Self-check 2).
11. Read the information written in the “Information Sheets 3. Try to understand what are being discussed. Ask you teacher for assistance if you have hard time understanding them.
12. Accomplish the “Self-check 3” in page 8.
13. Ask from your teacher the key to correction (key answers) or you can request your teacher to correct your work. (You are to get the key answer only after you finished answering the Self-check 3).
14. Accomplish the “Self-check 4” in page 9.
15. Ask from your teacher the key to correction (key answers) or you can request your teacher to correct your work. (You are to get the key answer only after you finished answering the Self-check 4).



Information Sheet-1	Interpreting work to be undertaken
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INTRODUCTION

This unit of competency specifies the outcomes required identifying and sexing poultry work under supervision. The unit requires the ability to prepare materials, tools and equipment for work, perform routine poultry sexing activities, handle materials and equipment, and clean up on completion of work.

Definition of terms

- **Chick sexing:** is the method of distinguishing the sex of chickens and other hatchlings, usually by a trained person called a chick sexer or chicken sexer.
- **Vent:** an opening that allows air, gas, or liquid to pass out of or into a confined space.
- **Feather:** any of the flat appendages growing from a bird's skin and forming its plumage, consisting of a partly hollow horny shaft fringed with vanes of barbs.
- **Day-old chick:** (DOC) is the newly-hatched chick. It can be considered in the hatchery, and until the farm where it will be housed and fed to provide a broiler chicken, a laying hen, or a breeding.

1.1. Interpreting work to be undertaken

Sexing poultry activities are undertaken in a safe and environmentally appropriate manner and according to enterprise guidelines. Poultry sexing activities include:

- Identification of birds
- Observation of birds
- Bird-watching

Poultry identification

A small percentage of breeding birds require individual identification.

Observation of birds

The chicks, only a few hours old, are brought to the sexer in trays of 100. The task requires that the cloaca be everted. The chick is held in the left hand (for a right-handed person) and the fecal contents are squirted into a container to clear the cloaca. Gentle but firm pressure



from the two thumbs and right forefinger are exerted to spread the ventral surface of the cloaca upwards to expose the eminence, called the "bead."

The eminence is about the size of a pin head. The sexing decision must be made quickly because the chick is at risk from the vent eversion. Females are traditionally placed in a tray on the right and males on the left.



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

1. List poultry sexing activities? (2 points)
2. Define chick sexing? (2 points)

Note: Satisfactory rating - 4 points

Unsatisfactory - below 4 points

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Information Sheet-2	Tools, equipment and PPE suitable for work
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2.1. Introduction

The required materials, tools and equipment are identified according to lists provided and/or supervisor instructions. Checks are conducted on all materials, tools and equipment, and insufficient or faulty items are reported to supervisor. If one person needs to identify and sex poultry and use product of his animal he have to fulfill the following materials, tools and equipment

2.1.1. Selecting materials needed for identifying and sexing poultry

- Paper
- Disinfectant dip

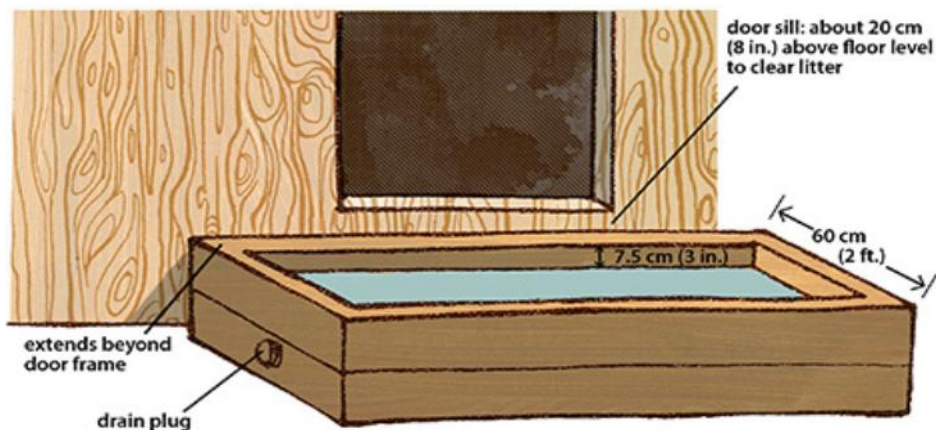


Figure : Disinfectant dip

- Pen

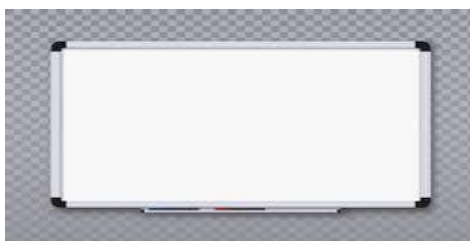


Figure : White board

- Glove
- Chick box

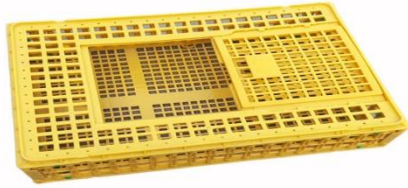


Figure : Chick box

2.1.2. Suitable personal protective equipment

- Suitable Personal Protective Equipment (PPE) should be selected and checked prior to use.
- Personal protective Equipment required for sexing poultry include: Overalls, Gloves, Safety goggles, Masks, boot.

2.1.3. Maintenance and checking tools

- Maintenance is defined as the continuous protective care of the fabric, contents and setting of a place.

Checking the quality of equipment against designed specification has the following **advantages**

- To protect breakage
- To protect Leakage
- To protect Blockage
- Highline
- Proper functioning
- Surrounding environment of equipment
- To check Warning signs on equipment



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

1. Describe personal protective equipment? (5 points)
2. What is maintenance? (2 points)
3. What are the advantages of checking tools before using them?(2 points)

Note: Satisfactory rating - 9 points

Unsatisfactory - below 9 points

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions



Information Sheet-3	Occupational Health and Safety (OHS) risk, hazard and suitable controls
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3.1. Identify and assess Occupational Health and Safety (OHS) risk and hazard

Definition of Terms

- **Occupational safety and health (OSH)**, also commonly referred to as occupational health and safety (OHS), occupational health, or workplace health and safety (WHS), is a multidisciplinary field concerned with the safety, health, and welfare of people at work.
- **Hazards:** Equipment and machinery operation and maintenance (including powered tools), vehicles, noise, chemicals, gases, dust, manual handling, plants and animals/livestock, solar radiation, electricity, overhead hazards including power lines, confined spaces, tripping hazards, water bodies, firearms, explosives, damaged or broken structures, damaged or worn equipment, items blocking exits, items of equipment in areas used for access, poor surfaces, and spillages and breakages.
- **Risks:** Drowning in waterways, run over and injury associated with vehicles and machinery, machinery entanglement, exposure to noise, splash, scalding, drift and volatility of chemicals.

Work task is provided according to Occupational Health and Safety (OHS) requirements and supervisor instructions

- Apply **OHS requirements** in accordance with regulations/codes of practice and enterprise safety policies and procedures. This may include:
 - Using of relevant protective clothing and equipment,
 - Use of tool and equipment,
 - Workplace environment and safety handling of material,
 - First aid kit
 - Hazard control and hazardous materials and substances
 - Using gowns, rubber boots of appropriate size, goggles, gloves etc.,
 - Following Occupational health and safety procedure designated for the task



- Checking and fulfilling required safety devices before starting operation

Hazards in poultry sex identification

Poultry Farm Workers may contract, from the fowl in their care,

- ✓ Infectious diseases those are common to fowl and man.
- ✓ The atmosphere in poultry farms usually contains significant levels of agricultural dust and toxic gases, which put the workers at a health risk.
- ✓ Some chemicals used at poultry farms (for disinfection, etc.) may cause harm to workers' health.
- ✓ The Poultry Farm Worker's work is often physically difficult and involves handling heavy loads, uncomfortable postures and movements. This may cause traumas (including falls), back, arms and hands pains.

3.2. Implementing and maintaining suitable controls

- **Apply safe operating procedures regarding:**
 - Electrical safety,
 - Machinery movement and operation,
 - Working in proximity to others and site visitors
- **Apply emergency procedures:**
 - Emergency shutdown and stopping of equipment,
 - First aid application and site evacuation. electrical safety,
 - Machinery movement and operation,
- **Preventive measures**
 - Wear safety shoes with non-skid soles
 - Wear appropriate eye protection; consult a safety supervisor or a supplier
 - Protect hands with chemical-resistant gloves; if impractical, use a barrier cream
 - Install effective exhaust ventilation and air conditioning to prevent air contamination and heat or cold stress
 - Wear a respirator to avoid inhalation of dust or aerosols



When should a risk assessment be done?

A risk assessment should be done when:

- There is only limited knowledge about a hazard or risk, or about how the risk may result in injury or illness.
- There is uncertainty about whether all of the things that can go wrong have been found.
- The situation involves a number of different hazards that are part of the same work process or piece of plant, and there is a lack of understanding about how the hazards may impact upon each other to produce new or greater risks.

How the risk be assessed?

Work out what levels of harm can occur

- The gas may disperse harmlessly.
- If ignited the room could be set on fire, causing burns to anyone in the room.
- If enough gas escaped, there could be an explosion that could destroy the room, damage areas outside and kill or injure anyone nearby.



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

1. What are emergency procedures? (3 points)
2. How did you identify and manage hazards in poultry sexing? (5 points)

Note: Satisfactory rating - 8 points

Unsatisfactory - below 8 points

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions



Poultry Production

Level -II

Learning Guide -46

Unit of Competence: -Identify and sexing birds

Module Title: -Identifying and sexing birds

LG Code: AGR PLP2 M13 LO2-LG-46

TTLM Code: AGR PLP2 TTLM 1219v1

LO 2: Identify and sex poultry



Instruction Sheet-1	Learning Guide 46
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This learning guide is developed to provide you the necessary information regarding the following **content coverage** and topics –

- Carrying out identification method is according to the given criteria
- Conducting procedures to control and sort chickens.
- Handling poultry with care strictly according to the code of welfare.

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 –**

- Carry out identification method is according to the given criteria
- Conduct procedures to control and sort chickens.
- Handle poultry with care strictly according to the code of welfare.

Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described in number 4 to 13.
3. Read the information written in the “Information Sheets 1”. Try to understand what are being discussed. Ask you teacher for assistance if you have hard time understanding them.
4. Accomplish the “Self-check 1” in page 18.
5. Ask from your teacher the key to correction (key answers) or you can request your teacher to correct your work. (You are to get the key answer only after you finished answering the Self-check 1).
6. If you earned a satisfactory evaluation proceed to “Information Sheet 2”. However, if your rating is unsatisfactory, see your teacher for further instructions or go back to Learning Activity #1.
7. Submit your accomplished Self-check. This will form part of your training portfolio.
8. Read the information written in the “Information Sheet 2”. Try to understand what are being discussed. Ask you teacher for assistance if you have hard time understanding them.
9. Accomplish the “Self-check 2” in page 13-22.



10. Ask from your teacher the key to correction (key answers) or you can request your teacher to correct your work. (You are to get the key answer only after you finished answering the Self-check 2).
11. Read the information written in the “Information Sheets 3. Try to understand what are being discussed. Ask you teacher for assistance if you have hard time understanding them.
12. Accomplish the “Self-check 3” in page 20.
13. Ask from your teacher the key to correction (key answers) or you can request your teacher to correct your work. (You are to get the key answer only after you finished answering the Self-check 3).
14. If you earned a satisfactory evaluation proceed to “Operation Sheet 1” in page 20. However, if your rating is unsatisfactory, see your teacher for further instructions or go back to Learning Activity #1.
15. Read the “Operation Sheet 1” and try to understand the procedures discussed.
16. If you earned a satisfactory evaluation proceed to “Operation Sheet 2” in page 21. However, if your rating is unsatisfactory, see your teacher for further instructions or go back to Learning Activity #1.
17. Read the “Operation Sheet 2” and try to understand the procedures discussed.
18. Do the “LAP test” in page 22 (if you are ready). Request your teacher to evaluate your performance and outputs. Your teacher will give you feedback and the evaluation will be either satisfactory or unsatisfactory. If unsatisfactory, your teacher shall advice you on additional work.



Information Sheet-1	Sexing of poultry
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2.1. Advantages of poultry sexing

- It will allow males' chicken elimination before the pain-feeling stages.
- Male gain same weight 4 days before females – FCR of male is near about 1.73 while that of female is 1.89
- To meet market demands in a better way – Sex separated birds have uniformity in weight so ease in processing.
- Males grow more quickly and efficiently specially to the larger weight.
- Male and female have different nutritional requirements so we can prepare separate feed for male and separate feed for female. This will reduce our feed cost

2.2. Criteria for sex identification of chicken

Sexing allows separation of male and female chicks. This can be done by:

- **Visual examination**, (called vent sexing) either by checking the structures in the chick's vent with the naked eye or by inspecting the internal sexual organs with a special lamp.
- Most breeds can now be sexed by **checking the feather** colour or the degree of growth of wing feathers. Genetic selection has been carried out to ensure that these differences between sexes are distinctive.

Layer chicks are always sexed, as the females are kept while the males are killed. Breeders are usually sexed, as a greater number of females to males are kept for breeding purposes. Meat chickens are normally left unsexed, as both sexes are usually



Chick requirements

The baby chick must be kept warm as it does not have the ability to maintain a constant body temperature. The chicks are transported in chick boxes which are designed to conserve heat while allowing air movement. The room where chicks are held in the hatchery and the truck which delivers them to the farm is also designed to keep the chicks both warm (32-34°C) and ventilated. There is enough food and water in the yolk to keep the chicks alive for about three days, but best results are obtained if they can eat and drink as soon as possible. When placed on the farm, they must be kept warm and have feed and water available at all times.

Sex determination of chicks

- The sex of a chick may be determined at hatching time.
 - ✓ By averting its vent (cloaca); it can be used to sex all breeds of chicks.
- The best time to carry out this operation is five to fifteen hours after hatching (chicks dried off and strong enough).

Sex determination of older chicks

- Apart from vent sexing, it is possible to determine the sex of birds in other ways such
 - Use of sex linked color (auto sexing or color sexing) for barked breeds.
 - auto sexing feather development (Feathers grow much longer in female).
- Within ten to twelve weeks all chicks can be sexed.



Methods of chick sexing

1. Vent sexing
2. Feather sexing
3. Color sexing
4. Machine sexing etc.

Several methods are used to determine the sex of a day-old chick. Some are effective only with certain breeds or crosses, while others are universal. The two chief methods of sexing chicks are feather sexing and vent sexing.

1. Vent sexing

Vent sexing, also known simply as venting, involves squeezing the faeces out of the chick, which opens up the chick's anal vent (called a cloaca) slightly, allowing the chicken sexer to see if the chick has a small "bump", which would indicate that the chick is a male. Some females also have bumps, though they are rarely as large as those of male chicks.

The reproductive organs of male chickens are located within the body cavity making it difficult to determine sex based on physical attributes. Male chicks have a rudimentary sex organ that can be detected by trained sexers. It is not easy though, as shown in the images to the left.

The eminence or genital organ is found midway on the lower rim of the vent, and looks like a very small pimple. Most males have a relatively prominent eminence, most females have none. However, a small proportion of both males and female have relatively small eminences. Sexing these chickens can be quite difficult, but with regular practice, the sexer will eventually learn to identify the differences.

When learning to sex chickens, it is best to assume that chickens with small eminences are female. The male eminence is solid and will not disappear upon gentle rubbing with one's thumb.

Professionals use a practice called vent sexing, which is one of the most accurate ways to differentiate male chicks from female chicks. Don't underestimate the value of experience in

this field though. Even the experts make mistakes, and you will more certainly gain accuracy with practice!



2. Feather sexing

Feather sexing is another easy way to determine the gender of chicks. Surprisingly, female chicks typically have wing feathers before they hatch. Young roosters do not begin to develop their wing feathers until a few days after they hatch.

The sex-linked slow-feathering gene can be used for crosses where the sex of the chicks can be determined at hatching time by the length of the wing feathers. A cross between a fast-feathering male and a slow-feathering female result in offspring where the female chicks have primary wing feathers that are significantly longer than the coverts. The male chicks have primary wing feathers that are shorter, about the same length as the coverts.

The female commercial chicks show fast feathering (primary wing feathers are longer than the covert feathers) and male chicks are slow feathering (primary and covert feathers are the same length). In a small percentage of male chicks, covert feathers may be longer than the primary feathers (super slow feathering).

Feather sexing day-old chickens in the hatchery

It is often necessary to sort day-old chicks by sex at the hatchery.

- To identify females at the parent generation.
- To separate male and female broilers so that they can be managed according to their differing requirements.
- When a fast-feathering male is mated to a slow-feathering female, the sex of their chicks can be determined by observing small differences in the wing feathers at the time of hatch.
- Not all chicks can be feather sexed. The majority of Aviagen® products are feather sexable at the broiler generation. Some Aviagen parent female crosses can be feather sexed. However, if the parent female is feather sexable at day-old, her chicks will not be.

Advantages of feather sexing

Compared with vent sexing:

- People can be trained to feather sex fairly quickly, and soon develop good speed and accuracy. As such, feather sexing can be carried out by hatchery employees, trained in-house.
- Feather sexing is fast (up to 4,500 chicks per person per hour).
- Less risk of damage or infection.
- Reduced cost.

These chicks are males.

Fast feathering = female chick

Sight: Coverts are shorter than primaries

Feel: Coverts are thin and primaries are thick

Slow feathering = male chick

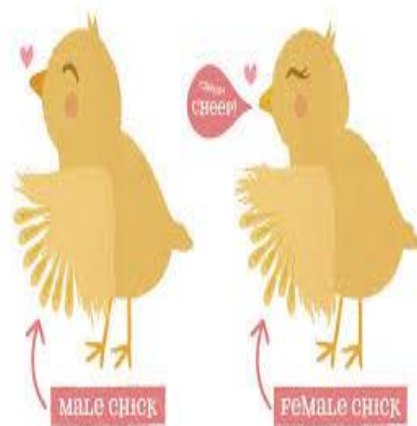
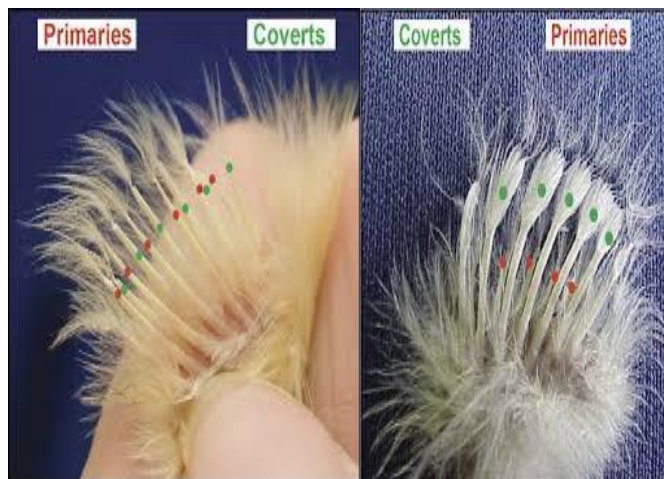
Sight: Coverts and primaries are short and same height

Feel: Coverts and primaries same thickness

Super slow feathering = male chick

Sight: Coverts are longer than primary feathers

Feel: Coverts and primaries same thickness



3. Color sexing

Color sexing of chicken can be conducted when the chicks are taken from the hatcher before other processing is started.

Females

- Buffy-red color (Figure 1)
- Red around base of the beak and around the eyes (Figure 2)
- Two or four red stripes on back (Figure 3)

Figure 1 - Female chicks



Figure 2 - Female chicks with red around the eyes



Figure 3 - Female chicks with two or four red stripes on back



Males

- Generally yellow (white) (Figure 4)
- May have round, red spot on head and neck (Figure 5)



The simplest rule in sexing chicks by color is to remember males have lighter heads, sometimes with a white or yellow spot, and females have darker down color often with a black or brown spot or stripes on their heads or with darker stripes on their backs.

The sex-linked silver/gold (Ss) gene can also be used to sex newly hatched chicks. An S female mated to an s male will produce offspring where the females have a darker, buff down



color, while the males have a lighter, whiter down color. If not obscured by other coloration (controlled by other genes), the chicks can accurately be sexed with little or no training.

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

1. Differentiate two common chick sex identification methods? (3 points)
2. Write the advantages of poultry sex identification? (3 points)

Note: Satisfactory rating - 6 points

Unsatisfactory - below 6 points

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Information Sheet-2	Effect of sex and beak trimming
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2.2. Effect of sex and beak trimming

The main effect of sex and beak trimming on the performance of chicken (above 16 weeks of age). The weight, weight gain and protein efficiency ratio were influenced by beak trimming. Male chicken had best values for weight, weight gain and feed conversion ratio compared to values obtained in female. Undebeaked chicken had better indices for weight gain and Feed Conversion Ratio (FCR) with debeaked chicken having a comparable feed intake but with a poor FCR.

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

1. How sex of poultry affect beak trimming? (3 points)

Note: Satisfactory rating - 3 points

Unsatisfactory - below 3 points

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Information Sheet-3	Care handling of chicken during sex identification
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2.3. Chicken is handled with care strictly according to the code of welfare.

Animal welfare considerations are becoming increasingly important for the keeping and farming of animals. Practices which may have once been deemed acceptable are now being reassessed in light of new knowledge and changing attitudes.

The minimum standards outlined in this code are intended to help people involved in the care and management of poultry to adopt standards of husbandry that are acceptable.

This code of practice is intended as a guide for people responsible for the welfare and husbandry of domestic poultry. It recognizes that the basic requirement for welfare of poultry is a husbandry system appropriate to their physiological and behavioral needs.

The basic needs of poultry during sex identification are:

- Readily accessible food and water to maintain health and vigor;
- Freedom to move, stand, turn around, stretch, sit and lie down;
- Visual contact with other members of the species;
- Accommodation which provides protection from the weather and which neither harms nor causes distress;
- Prevention of disease, injury and vice, and their rapid treatment should they occur.

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

1. What are basic welfare needs of poultry during sex identification? (3 points)

Note: Satisfactory rating - 3 points

Unsatisfactory - below 3 points

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Operation Sheet-1

Vent sexing

Techniques for vent sexing:

Step 1- Before examining the vent; discharge the chicken's excretions by lightly pressing on both sides of the abdomen in a downward motion.

Step 2- Place the chicken on its back in the palm of your hand with the head towards you, put your thumb and first two fingers around its thighs to hold it.

Step 3- Tip your hand so that the chicken's breast is towards you, vent uppermost.

Step 4- Place your middle fingers over the chicken's breast to support the chicken leaving your thumb free. (If you have large hands, place the chicken's head between your little finger and ring finger for additional support.)

Step 5- Place the thumb of your other hand on the lower portion of the vent (anus).

Step 6- Using the index finger start from the top of the vent moving down, back and around, rolling the vent in a sideways action.

Step 7- At the same time a similar action with the free thumb, starting from the top and rolling down and back.

Step 8- With the thumb and forefinger placed either side of the vent apply gentle pressure and a rolling action to evert the vent and expose the male eminence or lack of it (sexed as female). After a little practice this can be accomplished without injury or significant discomfort to the chicken.

Step 1- Pick up the chick by gentle holding the neck between the index and middle finger. Ring and little finger will automatically support the rest of the chick's body. Chicks should not be picked up or handled by the wing-this puts unnecessary stress on the chick and can damage the joint.

Step 2- The chick's wing will present between the thumb and index finger; bring your thumb upwards pushing gently against the index finger. This will spread the wing open facing towards you.

Step 3- Look into the covert and primary feathers and determine whether the chick is a male or female.

Step 4- Gently place the sexed chick into the appropriate box or chute. When sexing parent females, any chicks that are not clearly female should be put with the male off-sexes.

LAP Test 1	Practical Demonstration
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Name: _____ Date: _____

Time started: _____ Time finished: _____

Instructions: Given necessary templates, tools and materials you are required to perform the following tasks within --- hour.

Task 1. Identify the sex of newly incubated chicks and older Chickens by venting.
(Chick box, incubator, hatchery room, brush)

Task 2. Identify the sex of poultry byfeather sexing

Poultry Production

Level -II

Learning Guide -47

Unit of Competence: -Identify and sexing birds

Module Title: -Identifying and sexing birds

LG Code: AGR PLP2 M13 LO3-LG-47

TTLM Code: AGR PLP2 TTLM 1219v1

LO3: Complete hygiene and administration activities

Instruction Sheet	Learning Guide #47
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This learning guide is developed to provide you the necessary information regarding the following content coverage and topics –

- Removing and disposing all debris and waste material
- Cleaning, maintaining and storing tools and equipment
- Maintaining a clean and safe area
- Completing documentation, Recording keeping and reporting work outcomes related to sexing of chickens

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 –

- Remove and disposing all debris and waste material
- Clean, maintain and store tools and equipment
- Maintain a clean and safe area
- Complete, Record or report work outcomes

Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described in number 26 to 34.
3. Read the information written in the “Information Sheets 1”. Try to understand what are being discussed. Ask you teacher for assistance if you have hard time understanding them.
4. Accomplish the “Self-check 1” in page 27.
5. Ask from your teacher the key to correction (key answers) or you can request your teacher to correct your work. (You are to get the key answer only after you finished answering the Self-check 1).
6. If you earned a satisfactory evaluation proceed to “Information Sheet 2”. However, if your rating is unsatisfactory, see your teacher for further instructions or go back to Learning Activity #1.
7. Submit your accomplished Self-check. This will form part of your training portfolio.

8. Read the information written in the “Information Sheet 2”. Try to understand what are being discussed. Ask you teacher for assistance if you have hard time understanding them.
9. Accomplish the “Self-check 2” in page 28.
10. Ask from your teacher the key to correction (key answers) or you can request your teacher to correct your work. (You are to get the key answer only after you finished answering the Self-check 2).
11. Read the information written in the “Information Sheets 3. Try to understand what are being discussed. Ask you teacher for assistance if you have hard time understanding them.
12. Accomplish the “Self-check 3” in page 29.
13. Ask from your teacher the key to correction (key answers) or you can request your teacher to correct your work. (You are to get the key answer only after you finished answering the Self-check 3).
14. Accomplish the “Self-check 4” in page 33.
15. Ask from your teacher the key to correction (key answers) or you can request your teacher to correct your work. (You are to get the key answer only after you finished answering the Self-check 4).
16. If you earned a satisfactory evaluation proceed to “Operation Sheet 1” in page 33. However, if your rating is unsatisfactory, see your teacher for further instructions or go back to Learning Activity #1.
17. Read the “Operation Sheet 1” and try to understand the procedures discussed.
18. If you earned a satisfactory evaluation proceed to “Operation Sheet 2” in page 34. However, if your rating is unsatisfactory, see your teacher for further instructions or go back to Learning Activity #1.
19. Read the “Operation Sheet 2” and try to understand the procedures discussed.
20. Do the “LAP test” in page 34 (if you are ready). Request your teacher to evaluate your performance and outputs. Your teacher will give you feedback and the evaluation will

be either satisfactory or unsatisfactory. If unsatisfactory, your teacher shall advise you on additional work.

Information Sheet-1	Removing and disposing all debris and waste material
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Definition of Terms

- **Waste of a poultry farm:** Includes litters from broiler and layers, hatchery debris, dead birds and much other debris. Broiler litter is a mixture of manure, bedding material, wasted feed, feathers and in some cases soil.
- **Waste disposal:** Removing and destroying or storing damaged, used or other unwanted domestic, agricultural or industrial products and substances. Disposal includes burning, burial at landfill sites or at sea, and recycling.

Waste material handling

- Ever waste materials must be handled in a safe manner.
- Avoid or re use waste material as soon as possible.
- Waste which could not be re used should be properly disposed according safety rules and regulations.
- Avoiding and controlling waste materials from poultry farm must be given attention b/c poultry is easily affected by disease thus it is referred as risk business.

Types of Poultry house Wastes

1. Poultry manure

In the intensive poultry production system where birds are housed in cages or on slatted floors, the excreta collected is by and large free of foreign materials except, of course, a bit of broken feathers, down, spilled feed or broken egg shells

2. Poultry litter

The excreta from birds reared in confinement housing system with some kind of material spread onto the floor is not removed daily but allowed to mix with the bedding. In the course of time, the bedding gets impregnated with droppings, decomposed and transformed into the so called built-up litter. Some of the materials commonly employed for bedding included rice husk, wood shavings, sawdust, groundnut hulls and chaffed hay.

3. Hatchery wastes which includes: -

1. Egg shell
2. Dead in shell

3. Fluff
4. Infertile eggs
5. Low quality chicks
6. Males chicks
7. C grade female chicks
8. Dead embryos



Hatchery Waste (Dead Chicks)



Hatchery Waste (Eggshells)

- Other waste materials in poultry farm
 - ✓ Plant debris, dead chicken and drug
 - ✓ Metal and paper –based materials ,feed left over
 - ✓ Disinfections of houses
 - ✓ Poultry feather

Why we dispose waste materials?

- To protect human health
- To reduce the pollution of environment

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

1. What are the major waste materials in poultry sexing and identification? (3%)

Note: Satisfactory rating - 3 points

Unsatisfactory - below 3 points



Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Information Sheet-2	Cleaning, maintaining and storing tools and equipment
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3.1.1. Cleaning, maintaining and storing tools and equipment

Important terminologies

- A. Maintain** All action taken to retain materiel in a serviceable condition or to restore it to serviceability. It includes inspection, testing, assembling, repairing etc.
- B. Cleaning** is the removal of dirt and organic substances from surfaces of tools and equipment.
- C. Safe work site** is making working area & environment suitable & conducive to employers
- D. Work site** is an area where an industry work is occur or located or where work takes place.

Handling tools, Materials and equipment

- Materials, tools and equipment which are useful for undertaking poultry sexing must be handled carefully.
- Consumables should be disposed immediately after appropriate use.
- Equipment has to be washed and disinfected after every use in order to keep their hygiene.

Maintaining and cleaning tools and equipment

Clean and safe work site should be maintained while working livestock production work.

Clean and safe work site should have:

- OHS procedures to cover work activities and hazards
- everyone understands the OHS procedures, especially what is to be done in the event of one of the hazards occurring
- Putting up safety signs in the workplace.
- all chemicals and other substances that could cause ill health or injury are labeled properly and listed on a register kept at the work place
- Making sure everyone knows how to use safety equipment.
- Practicing emergency procedures.



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

1. What should have for work site? (3%)
2. Define the following terms (3%)
 - A. Cleaning



B. Maintain

Note: Satisfactory rating - 5 points
Answer Sheet

Unsatisfactory - below 5 points

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Information Sheet-3	Cleaning and safe area is throughout and on completion of work
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3.2. A clean and safe area is throughout and on completion of work

- Cleaning refers to removal of matter from a surface on which it is not acceptable.
- Equipment should be carefully selected, washed and maintained before they can be sanitized.
- After cleaning and washing the materials store at proper place.

Aim of maintaining clean and safe work site

- Paths are swept and cleaned,
- work area is left in a good state,
- disturbed areas are repaired,
- All materials, manure, tools and equipment are removed from site, and other signs of disturbance or damage are corrected.

Importance of maintaining clean and safe work site

- ❖ To make site attractive
- ❖ To minimize damage at work site
- ❖ To save materials and tools

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

1. Write the main purpose of reporting workout come? (3%)
2. List at least 5 main parts of workout come? (5%)

Note: Satisfactory rating - 8 points
Answer Sheet

Unsatisfactory - below 8 points

Score = _____

Rating: _____



Name: _____

Date: _____

Short Answer Questions

Information Sheet-4	Completing documentation, Recording keeping and reporting work outcomes related to sexing of chickens
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4.1. Recording work outcomes, feedback and improvement for future action

- A. Reporting** means informing related information to a person who concerns. Or it is an integral part of monitoring and evaluation. It is the systematic and timely provision of essential information at periodic intervals.
- B. Reporting outcomes** means announcing whether its goodness or badness about the work result.

C. Feedback is a process within the framework of monitoring and evaluation by which information and knowledge are disseminated and used to assess overall progress towards results or confirm the achievement of results. Feedback may consist of findings, conclusions, recommendations and lessons from experience. It can be used to improve performance and as a basis for decision-making and the promotion of learning in an organization.

On performing of poultry production activity our outcomes like productivity of chicken, strengths of production, weaknesses of production, and problems of production should be reported to you supervisor according to instructions and formats given from the supervisor. The work outcomes can vary depending on objective; it can be laid egg per day, amount of feed consumed per day, number of eggs sold per day, number of chicken loss per stock, total chicken culled, total amount of drugs & vaccines used per day per chicken, etc. Reporting work out come helps you to get feedback by your supervisor so that you can leave your weakness and encourage your strength.

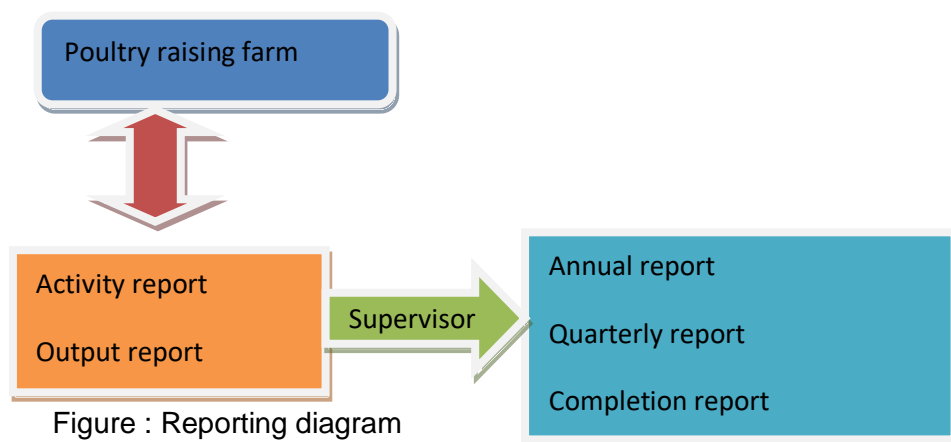


Figure : Reporting diagram

It also helps the supervisor to get full information about the production. The reporting format may vary but it can be as follows:

	Types of report	Actor	Frequency
1	Main Activity level reporting	shop attendant/ supervisor	Quarterly
2	Output level reporting	supervisor/ facilitator	Quarterly
3	Outcome level reporting	Farm manager	Annually

Importance of reporting work outcomes, feedback

- ❖ To increase student knowledge and skill
- ❖ Define work activates
- ❖ To communicate information's
- ❖ To maintain record keeping
- ❖ To identify available materials

The reports shall include the following components:

1. Develop coverpage
2. Introduction
3. Objective or purpose
4. List of materials
5. Procedure or steps
6. Discussion
7. Conclusion
8. Recommendation
9. Annex/ resource

10. Reference

For example if we want to report the problems we can use the following table format.

S. No.	Work outcomes	report	problems faced	solution	Feedback
1	Productivity				
2	Production				
3					

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

1. Write the main purpose of reporting workout come? (3%)
2. List at least 5 main parts of workout come? (5%)
3. Define the following terms (3%)
 - i. Report
 - ii. Feed back

iii. Work out come

Note: Satisfactory rating - 11 points
Answer Sheet

Unsatisfactory - below 11points

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Operation Sheet 1	Returning and disposing materials
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Method of returning and disposing material;

Step 1- Collect material

Step 2- Separate material

Step 3- Put in order

Step 3- Separate each in order to return or dispose

Step 3- Returns for future use

Step 3- Dispose unwanted

Step 3- Report for supervisor

Step 3- Take correction for your mistake / fault

Operation Sheet 2	Maintaining clean and safe work site
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Steps that used for maintaining clean and safe work site

Step 1- Wear PPE

Step 2- Select work site

Step 3- Select methods or types of poultry sex identification work

Step 4- List and select required tools and equipment

Step 5- Clean work sites for selected materials

Step 6- Collect unwanted materials far from work site

Step 7- Disposes material orderly

Step 8- Work site will be clean and good for work

LAP Test	Practical Demonstration
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Name: _____ Date: _____

Time started: _____ Time finished: _____

Instructions: Given necessary templates, tools and materials you are required to perform the following tasks within --- hour.

Task 1. Clean the given tools and equipment. (Chick box, incubator, hatchery room, brush,)

Task 2. Apply waste dispose at work site. (Manure, broken woods, mulches, wastage feed)