

Poultry Production

Level-III

Learning Guide-62

Unit of Competence: - Perform de-beak (Beak Trimming)

Module Title: - Performing de-beak (Beak Trimming)

LG Code: AGR PLP3 M15 LO1-LG-62

TTLM Code: AGR PLP3 M15 TTLM 1220v1

LO 1: Carry-out preparatory activities

Instruction Sheet

Learning Guide 62

This learning guide is developed to provide you the necessary information regarding the following **content coverage** and topics –

- **Preparing materials, tools and equipment**
- **Conditioning birds for debeaking and following animal welfare and OHS**

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 –**

- **Prepare materials, tools and equipment**
- **Condition birds for debeaking and follow animal welfare and OHS**

Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described in number 1 to 7.
3. Read the information written in the “Information Sheets 1”. Try to understand what are being discussed. Ask your teacher for assistance if you have hard time understanding them.
4. Accomplish the “Self-check 1, 2” in page -4 and 7 respectively.
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, 2).
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, 2 and 3.
7. Submit your accomplished Self-checks. This will form part of your training portfolio.

Information Sheet-1

Preparing materials, tools and equipment

1.1. 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 debeak poultry and use product of his animal he have to fulfill the following materials, tools and equipment

- **Materials needed for debeaking poultry**
 - Medicines (analgesic, blood coagulants)
- **Tools and Equipment may include:**
 - Net for restraining
 - Old tire
 - Pail
 - Debeaking machine
 - Sprayer
 - Heater
 - Knife
 - Catching hook
- **Selecting and Checking Suitable Personal Protective Equipment (PPE)**
 - Suitable Personal Protective Equipment (PPE) should be selected and checked prior to use.
 - Personal protective Equipment required for raising poultry include:
 - Overalls, Gloves, Safety goggles, Masks, boot

Self-Check -1

Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. List at least four tools that are used for debeaking (2 pts)
2. List at least four PPE that are used for debeaking? (2 pts)

Note: Satisfactory rating - 4 points

Unsatisfactory - below 4 points

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Information Sheet-2

Conditioning birds for debeaking and following animal welfare and OHS

2.1. Conditioning birds

In terms of positive reinforcement in poultry training, conditioning is the process of helping the poultry understand a simple concept—a click equals a treat. In a sense, the bird owner is creating a communication link that is simple for the poultry to understand.

2.1.1. Why conditioning of poultry is required before debeaking

It is thought that the chicks experience discomfort, even some pain when they are debeaked, but nothing more than the pain of being tattooed or having an ear or nose pierced.

2.2. Good Animal Practices

It is obvious that feather pecking and cannibalism drastically reduce the **welfare** of pecked birds by causing injury, pain and potentially death. **Beak trimming** doesn't decrease the tendency of birds to feather peck; it makes pecking much less efficient and so reduces the damage caused.

2.3. Animal Welfare Act

When performed as a preventive measure beak trimming should be carried out by a competent operator soon after hatching and preferably within 3 weeks. For chickens, the operator may remove not more than half of the upper beak and one-third of the lower beak. For day old chickens, not more than 3mm of the upper and 2.5mm of the lower beak. For 10-day old chickens, not more than 4.5mm of the upper and 4mm of the lower beak. Further trimming of the beaks of growing birds may be necessary to prevent cannibalism during the laying period but not as a means of restricting or retarding body weight.

Beak-trim recommendations

The following precautions and recommendations must be observed:

- Do not beak-trim sick birds.
- Do not hurry.
- Use only well-trained crews for beak trimming. Use electrolytes and vitamins (containing vitamin K) in the water 2 days before and 2 days after beak trimming.
- Use 360°-access nipple drinkers.

- Keep feed at the highest level for several days after beak trimming.
- If a coccidiostat is used in the feed, supplement it with water-soluble coccidiostats until feed consumption returns to normal.
- If a second beak trimming is performed, the starter feed can be re-introduced for 1 to 3 weeks afterwards to account for the lower feed intake and ensure body weight gains.

2.4. Occupational Safety and Health Standards

2.4.1. Safe systems and procedures for beak trimming:

- Handling poultry
- Using handling equipment
- Hazard and risk control
- Manual handling
- Handling, application and storage of hazardous substances
- Protection from solar radiation, dust and noise
- The appropriate use and maintenance of personal protective 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. Why conditioning of chicken is required before debeaking (2 pts)
2. Describe animal welfare acts during debeaking? (2 pts)

Note: Satisfactory rating - 4 points

Unsatisfactory - below 4 points

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

References

- Review of beak-trimming methods
- Code of Good Animal Husbandry Practices for Chickens – Broilers and Layers
- Seminar-Workshop on the Assessment of Good Animal Husbandry Practices (GAHP) in APEC Member Economies

Poultry Production

Level-III

Learning Guide -63

Unit of Competence: - Perform de-beak (Beak Trimming)

Module Title: - Performing de-beak (Beak Trimming)

LG Code: AGR PLP3 M15 LO2-LG-63

TTLM Code: AGR PLP3 M15 TTLM 1220v1

LO 2: Trim beak

Instruction Sheet	Learning Guide 63
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This learning guide is developed to provide you the necessary information regarding the following **content coverage** and topics –

- **Following standard procedures for beak trimming in each age group**
- **Restraining poultry with net to calm capture**
- **Performing OSHS and following GAHP**

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 –**

- **Follow standard procedures for beak trimming in each age group**
- **Restrain poultry with net to calm capture**
- **Perform OHS and following GAHP**

Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described in number 10 to 32.
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, 2 and 3” in page -15, 19 and 30 respectively.
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 and 3”. However, if your rating is unsatisfactory, see your teacher for further instructions or go back to Learning Activity #1.
7. Submit your accomplished Self-checks. This will form part of your training portfolio.

Information Sheet-1	Following standard procedures for beak trimming in each age group
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1.1. Introduction

This learning guide covers the functions involved in beak trimming chickens. Learning guide in this standard includes setting up equipment so that accurate trims are achieved and stress on the birds is minimized. This standard applies to all poultry species and breeds used for meat or egg production.

Work is likely to be under routine supervision with intermittent checking. Responsibility for some roles and coordination within a team may be required. Beak trimming of chickens is usually performed within established routines, methods and procedures.

Definition of terms

- **Beak:** the hard, pointed part of a bird's mouth and use their beaks to pick up food.
- **Debeaking (beak trimming):** is a partial removal of the beak of poultry, especially layer hens, when layer hens are confined to a chicken house,

1.1.1. Cannibalism



Figure 1: Cannibalism in chicken

It is a well-known problem in chicken farming. Hens will peck and fight each other in order to establish the 'pecking order.'

➤ **Possible cause of cannibalism :**

- Hereditary: one flock shows more cannibalism than others.
- Low % of CF in the ration e.g. high % maize.
- Lice infection.
- Irritation of the skin through direct sun light.
- Temperature and humidity are too high.
- Insufficient feeding, drinking and floor space.
- Overcrowding.
- Insufficient nesting space.
- Flock nervousness in high producing strains or over excitement.
- Lambe birds left in flock.
- Dead birds left in flock.
- Keeping different ages or birds with different feather colors together.

- Aggressive individual birds.
- Sick, weak, small, or odd colored birds; birds will attack and kill these as a survival instinct.

Note: cannibalism can be avoided by act of debeaking.

Solutions to stop cannibalism

- Beak-trimming
- Hanging cabbages or sugar beets in the pen
- Putting pine boughs on the floor
- Painting windows red
- Applying Stockholm tar to picked birds
- Using no pick salves
- Using repellent sprays
- Adding salt to the feed and water
- Feeding oats
- Feeding vitamin preparations or including vitamin B complex in drinking water
- Feeding DL methionine (Neal, 1956), manganese sulphate and horn meal
- Applying Vicks Vapour rub on wound Including DL methionine in drinking water (1.5g/L for first 4 days; 1.0 g/L for next 3 days),
- Feeding whole grain diets

When beak trimming is not done correctly, poultries can suffer from:

- Reduced ability to eat and drink
- Short and long term stress
- Reduced social status

Advantages of beak trimming

- It improves feed efficiency and enhances the living environment.
- It helps to prevent cannibalism and feather picking between birds,
- Reduces pecking.
- It minimizes the need for the culling of chickens.

Disadvantages of beak trimming

- Chicks tend to lose weight for a week or two after they have been debeaked.
- Their rate of growth is also reduced and might delay sexual maturity.

1.1.2. Factors affecting beak trimming

- Age to trim,
- Amount of beak to remove,
- Temperature of the blade and
- Length of time to cauterise the beak.

1.2. Age of bird for trimming

Beak trimming is carried out at various ages depending on the preference of the farm manager. The most common ages for birds to be beak-trimmed are:

- Day-old (most common)
- 4–6 weeks
- 5–10 days old
- 8–12 weeks

1.3. Beak trimming standards

- A person must use appropriate tools and methods to trim the beaks of poultry.
- A person must not remove more than **one-third of the upper and lower beaks.**

There are production techniques which may reduce the need for beak trimming,

These techniques include:

- Light control
- Devices to restrict vision
- Devices to restrict beak use
- Environmental enrichment
- Anti-pick compounds
- Nutritional amendments
- Beak abrasives

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. Write merits and de-merits of debeaking chicken (2 pts)
2. What are the reasons of cannibalism? (2 pts)
3. Write the two standards of beak trimming (2 pts)

Note: Satisfactory rating - 6points

Unsatisfactory - below 6 points

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Information Sheet-2

Restraining poultry with net to calm capture

2.1. Restraining poultry

2.1.1. Advantages restraining poultry

- ✓ Minimize the stress on the poultry
- ✓ Reduce the risk of injury to responders and
- ✓ Easy for management

2.1.2. Signs of poor restraining Stress in poultries

➤ Overheating

- Red-flushed faces, combs, wattles
- Rapid panting and open-mouthed breathing

➤ Lack of oxygen

- Gasping and stretching of neck when breathing
- Purple combs and wattles

2.2. Proper bird capture

Currently, the majority of birds are caught and loaded into cages by hand.

In order to achieve the desired catching rate of chickens from a litter floor, it is necessary for the birds to be picked up by the legs.

While picking up the birds by the sides is an "ideal" way, in respect to animal welfare, it is not commercially feasible due to the high catching rate required.

Some of the recent welfare guidelines include a description of how birds should be caught and loaded.

Chickens should be caught individually by grasping both legs, just above the feet.

If carried in groups, care must be taken to ensure birds can be held comfortably without distress or injury, and carrying distance must be kept to a minimum.

No more than three birds should be carried in one hand.

In theory, it is possible to catch and crate the birds by hand with virtually no damage to the birds.

However, this is not always the case, because this physically demanding job makes it difficult on the workers to maintain the attitude and concentration required to handle birds carefully over an 8- hour shift.

Therefore, where problems occur, management should pay attention to training and motivating people to ensure proper bird handling.

There are different approaches to employing a catching crew, ranging from employing a permanent crew to hiring people off the street for a single assignment; the former gets much more training and incentives to do the job right.

Overall, a significant amount of damage can be inflicted on the birds if the job is not done right, and the workers' motivation is to just get the job over with in the shortest possible time.

Catching chicks and beak-trimming chickens

- Use large plastic buckets to hold chickens (day-old-10 days-of-age).
- Catch chicks by driving over to one side of the pen and retaining them with a low fence running the lengthwise of the pen.
- Position beak-trimming equipment outside pen.
- Operator can reach over low fence to pick up buckets of chicks or crate of chicks.
- With a bucket of chickens between the knees the operator uses his right hand to hold the chicken that is being beak-trimmed.
- As soon as chicken has been beak-trimmed, the operator's hand moves to one side and chick is released dropping down onto the litter outside the enclosure.
- To cushion the fall of the chicks, the litter is mounded up slightly where they drop or use folded up bags.

2.2. Safety practices

- Do not vaccinate just before debeakeing.

- Be sure that the flock is in good health.
- Debeaking should be performed in the morning in hot weather to minimize bleeding.
- A higher-level of vitamin K may be fed before debeaking to accelerate clotting.
- Debeaking can be done using a pair of scissors or an electric debeaker.
- If the former is used to cut the beaks, the raw surface should be rubbed with caustic potash to minimize bleeding which normally is excessive.
- The electric debeaker on the other hand cuts the beak and simultaneously cauterizes the raw surface and thereby stops or minimizes bleeding
- Careless work or work that is done too rapidly results in losses, the flock will not reach a proper bodyweight, the feed consumption will be too high and the flock's top production will be missed.
- But debeaking carried out properly, with the right equipment and by skillful persons, is likely to raise the profitability of a flock.

Self-Check -2

Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. Why we restrain chicken (2 pts)
2. List restraining tools? (2 pts)

Note: Satisfactory rating - 4 points

Unsatisfactory - below 4 points

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Information Sheet-3	Performing task by observing safety practices and following Good Animal Husbandry Practices (GAHP)
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3.1. Debeaking Techniques

The different ways of trimming the beak of birds are:

- Use of machine
- Use of knife



Figure 2: Automatic beak trimming machine

How to Use the Debeaking Machine?

The debeaking machine makes it faster and easier to debeak chickens.

There is automatic and semi-automatic poultry beak trimming machine.

How to Use the Debeaking Knife?

You can use the normal kitchen knife to debeak your chickens. How to do this:

1. You will need a partner to do this comfortably
2. Place the knife on burning stove or coal and allow to be red hot
3. Let your partner hold the chicken's legs and hold the head (toward the mouth) of the chicken with one hand and gently cut the pointed tip of the chicken's beak using the hot knife.
4. Release the bird afterwards.



Figure 3: Debeaking chicken by handheld electric knife

3.1.1. Rules in Debeaking or Beak Trimming

Before beak trimming:

- Do not debeak birds if the flock is not in good health or if it is undergoing from vaccine reactions.
- Add Vitamin K to the drinking water 48 hours prior to trimming and after to prevent haemorrhages.

- Check the equipment and make sure that the trimming blade has the right temperature to cauterize, but not so high to form a blister on the beak later.

During beak trimming:

- The operator should be installed and seated comfortably in such a way that each beak will be cut in the same manner.
- Do not rush the process: a too high rate (number of birds/minute) could lead to a higher chance of errors and poor uniformity.
- Clean the blades with sandpaper after use of 5,000 chicks or birds.
- Make sure the tongue of the bird is not burned.

After beak trimming:

- Increase the water level in the drinkers and the pressure in the pipes to make it easy for the birds to drink.
- Make sure that the depth of the feed is adequate. Do not empty the feeders for a week following beak trimming.
- It is important to give birds anti-stress or multivitamins before and after the operation so as to reduce the stress effect on the birds' performance.

It is highly beneficial to debeak poultry birds to reduce mortality due to pecking, and wastage of feed to save cost.

3.1.2. The main beak-trimming methods

1. Hot blade

- Despite the developments in design of hot blade beak-trimmers the process has remained largely unchanged.
- That is, a red-hot blade cuts and cauterizes the beak.

- The variables in the process are blade temperature, cauterization time, operator ability, severity of trimming, age of trimming, strain of bird and beak length.
- This method of beak-trimming is still overwhelmingly favored in industry and there appears to be no other alternative procedures that are more effective.

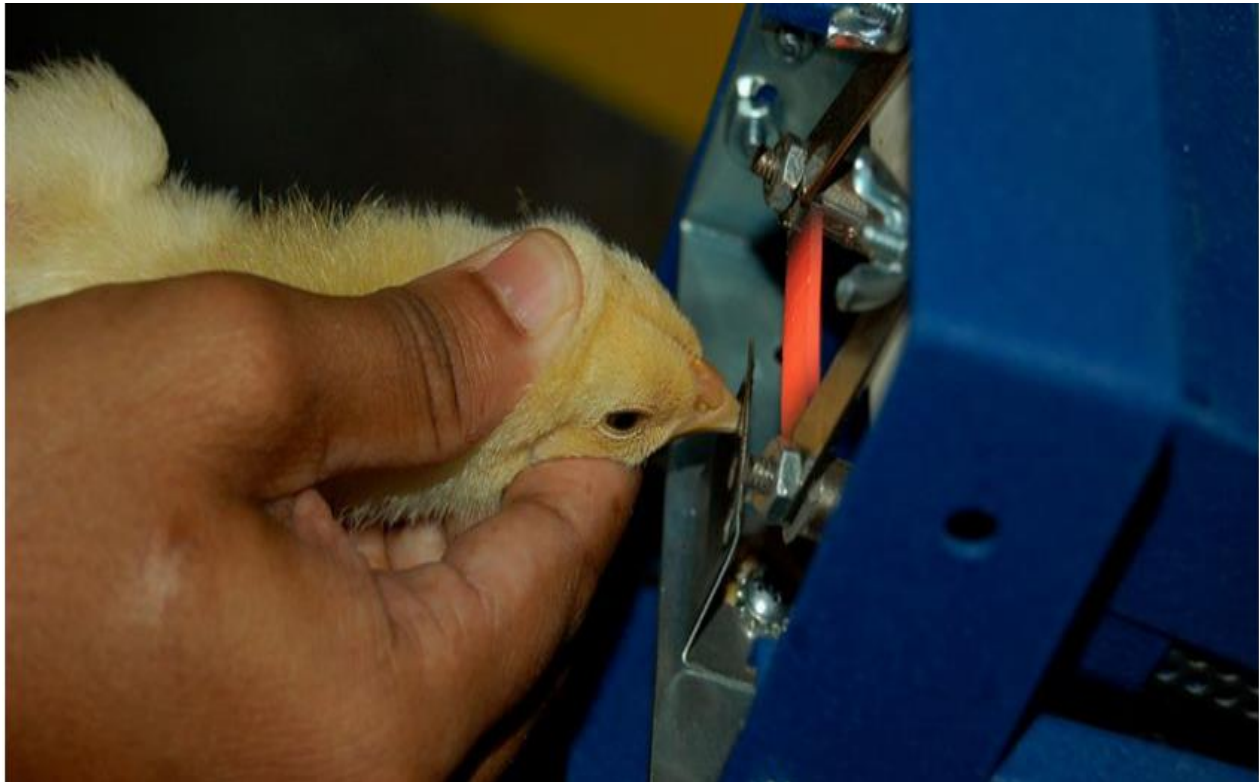




Figure 4: Debeaking by hot blade

2. Cold blade beak-trimming (scissors and knives):

Here beaks are physically cut with sharp knives and/or scissors. It is the cheapest method of trimming. This system is so rudimentary, time-consuming and jeopardises birds welfare. There are risks of uncontrolled fatal blood losses. It's disregarded except where unavoidable.

- Sharp secateurs have been used trim the upper beak of both layers.
- Bleeding from the upper mandible ceases shortly after the operation, and despite the regrowth of the beak a reduction of cannibalism has been reported.
- Very few differences have been noted between behaviour and production of the hot blade and cold blade cut chickens.
- This method has not been used on a large scale in Industry.

- There are anecdotal reports of cannibalism outbreaks in birds with regrown beaks.



The bird's beak knife has a two- to three-inch blade.



Figure 5a: Beak trimming knife

Fig. 5b: Debeaking with a pair of scissors

3. Chemical beak-trimming

- Capsaicin can cause degeneration of sensory nerves in mammals and decreases the rate of beak regrowth by its action on the sensory nerves.
- Capsaicin is a cheap, non-toxic substance that can be readily applied at the time of less severe beak-trimming.
- It suffers the disadvantage of causing an extreme burning sensation in operators who come in contact with the substance during its application to the bird.

- Methods of applying the substance to minimise the risk to operators of coming in contact with capsaicin need to be explored.

4. Laser beak-trimming

- A method was reported which cuts the beaks with a laser beam in day-old chickens.
- No details were provided on the type of laser used, or the severity of beak-trimming, but by 16 weeks the beaks of laser trimmed birds resembled the untrimmed beaks, but without the bill tip.
- Feather pecking and cannibalism during the laying period were highest among the laser trimmed hens.
- Currently laser machines are available that are transportable and research to investigate the effectiveness of beak-trimming using ablative and coagulative lasers used in human medicine should be explored.



Figure 6: Laser beak-trimming

5. Freeze drying trimming Laser beak-trimming

- Liquid nitrogen was used to declaw emu toes but was not effective.
- There was regrowth of the claws and the time and cost involved in the procedure limit the potential of using this process to beak-trim birds.

3.1.3. Pre-requisites for beak -trimming in each age group

1. Keep the birds as cool as possible if trimming during hot weather. It is better to do the work early in the morning or after sundown. Keep fresh, cool water available at all times.
2. Extra vitamin K should be added to the water (5 mg/gallon or 20 mg/liter) two days prior to trimming and two to three days following beak trimming.

3. Vitamin C (20 mg/liter or 80 mg/gallon) can also be added to the water at the same times.
4. For the first four to seven days after trimming, increase feed depth to a minimum of 2 inches. Chicks are not capable of pecking the bottom of the feeder at this time.
5. Stimulate feed consumption by adding feed twice daily or running mechanical feeders more often. Feed a pre-starter, starter or high-density stress feed for one week following beak trimming.
6. Lower water pressure or trigger cup watering devices manually for several days following beak trimming. It is difficult for newly trimmed chicks to operate automatic waterers immediately following trimming.
7. Birds should not be subjected to stress from housing, vaccinating or worming (outdoor birds) during the week prior to or two weeks following trimming.
8. Check birds often to monitor healing following beak trimming.
9. If significant beak re-growth occurs, a second beak trim may be necessary. This should be done at or prior to eight weeks of age.

Precautions:

- Person performing the procedure should avoid distractions
- Do not trim beak if bird appears ill
- Do not rush the procedure
- Use a pyrometer to keep blade temperature at correct setting
- Monitor the condition of the blade and change when necessary; at every 10,000 birds or every two years, whichever is sooner
- Only well-trained crews will perform the trimming. As of this date, the only individuals authorized to conduct this procedure are:

Grading beak after debeaking

Grade 1



- No imperfections, splitting, chapping or swelling;
- Good keratin layer on beak;
- Beak is not too short

Grade 2



- Beak shows minor imperfections in appearance and beak is too short

Grade 3



- Beak shows major imperfections and is very short

Figure 7: Grading debeaked beak

3.2. Good Animal Husbandry Practices

3.2.1. Minimising stress during beak-trimming

- Catch birds quietly whilst still contained within the brooding surrounds.
- Do not leave chickens in confined surrounds for too long as they will overheat and tend to bleed more readily when beak-trimmed.

- Wire mesh surrounds or catching frames are recommended, as they do not restrict the ventilation. Wire mesh should be covered with hessian to prevent stacking and pile-ups of birds. Vented plastic holding baskets are preferred to solid wooden or cardboard containers.
- As an alternative to dropping chickens onto mounded litter, operators can use a wooden or sheet metal slide to place chickens into after beak-trimming to prevent chickens flying or falling onto equipment.
- The beak should be inserted at an angle of about 300 up from the horizontal plane into either the 11/64th inch hole or 5/16th inch hole in the gauge plate of precision trimmer.
- Blade should be heated to a dull red colour.
- Automatic timing keeps the cutting cauterising blade in position for 2+ seconds, and the chick's beak should be held there for the entire time.
- An average rate of 15 birds/ minute should be maintained. A lower rate is more desirable because there is less chance of errors occurring from rushing the process.
- Beak-trimming will be consistent and uniform if done by a specialist with a good reputation.
- Beak-trimming both upper and lower beaks so as to form a V shape wedge is the usual type of cut preferred.
- The second or final beak-trim is desirable in pullets that are not more than 12-14 weeks-of age.

3.2.2. Care of birds before and after beak-trimming

- Administering vitamin K through drinking water 2-3 days prior to trimming can be considered as an option.
- Mechanical feeders should be operated frequently to stimulate feed consumption. If cart fed, birds should receive feed at least twice daily.

- Birds should not be subjected to stress from housing, vaccination or worming during the week prior to or the week after trimming.
- Give no medicines which will give a bad taste to the feed or water, or which dilute the blood like sulphas.

Common Errors in beak-trimming

- The upper and lower beaks are cut too short.
- Lack of cauterisation.
- Nostrils of the chicks are burnt.
- The beaks are cut on the side, leading to crooked beaks on account of rushing and holding too many chicks in one hand while trimming birds using the other hand.
- The beaks are cut at the wrong angle.

When to delay beak-trimming?

- When the flock is sick.
- Never beak-trim in combination with vaccinations except for fowl pox, when moving birds or when birds are on blood diluters, blood thinners.
- Not to beak-trim at temperatures above 27 °C

Self-Check -3

Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. Differentiate Cold and hot blade beak-trimming (2 pts)
2. What are the pre-conditions for beak -trimming in each age group? (2 pts)

Note: Satisfactory rating - 4 points

Unsatisfactory - below 4 points

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Operation Sheet-1

Poultry restraining

Techniques for poultry restraining:

Step 1- Use slow, steady movements with minimal noise

Step 2- Catch individual birds by grasping both legs, just above the feet

Step 3- Support the bird's body

Step 4- Avoid too much pressure on thorax and compromising the ability to breathe

Step 5- Carry the bird upright when possible

Step 6- Place your arm over the bird's wings to minimize flapping

Operation Sheet-2

Debeaking

Techniques for debeaking by automatic debeaker

Step 1- When the switch is turned on; adjust the temperature of the movable blade till it looks reddish or bright.

Step 2- When the movable blade glows, start the motor switch and the boat-shaped switch.

Step 3- Adjust the aperture of the micro cutter blade according to the beak size.

Step 4- Hold the chicken's feet with the left hand, the neck with the right thumb, and pin the throat with the forefinger of the right hand. Stick the beak of the chicken into the aperture.

Step 5- Bleeding stops in 2 – 4 seconds after the movable blade drops.

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. Restrain and capture Chickens. (Chick box, net, hook)

Task 2. Debeak poultry by their age group

Poultry Production

Level -III

Learning Guide -64

Unit of Competence: - Perform de-beak (Beak Trimming)

Module Title: - Performing de-beak (Beak Trimming)

LG Code: AGR PLP3 M15 LO3-LG-64

TTLM Code: AGR PLP3 M15 TTLM 1219v1

LO 3: Retrim beak

Instruction Sheet	Learning Guide 64
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This learning guide is developed to provide you the necessary information regarding the following **content coverage** and topics –

- **Retrimming Beaks**
- **Restraining poultry with net to calm capture**
- **Performing OSHS and following GAHP**

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 –**

- **Retrim Beaks**
- **Restraining poultry with net to calm capture**
- **Perform OSHS and following GAHP**

Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described in number 35 to 50.
3. Read the information written in the “Information Sheets 1”. Try to understand what are being discussed. Ask your teacher for assistance if you have hard time understanding them.
4. Accomplish the “Self-check 1, 2 and 3” in page -39, 42 and 46 respectively.
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, 2, 3).

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-checks. This will form part of your training portfolio.

Information Sheet-1	Retrimming Beaks
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Definition of terms

Re-trimming may also be carried out if a bird’s beak grows back enough to cause pecking damage.

Re-trimming is practiced in most flocks, although there are some flocks that only need one trimming.

Why re-trimming is needed?

- Carried out if a bird's beak grows back enough to cause pecking damage.
- To avoid the potential problem of cannibalism as a result of beak re-growth most birds are re-trimmed at 10-14 weeks.
- To improve poor or incorrect trimming done previously.
- If there is a gap between the top and bottom beaks is maintained.

When re-trimming is needed?

- Re-trimmed at 8–12 weeks of age

Measuring beak length



Figure 8: Measuring beak length

Farm managers and beak trimmers must be able to measure the upper beak length of birds of all ages being trimmed.

Measure from the outer tip of the nostril to the tip of the beak to keep this consistent (Fig. 9).



Figure 9: Measured part of beak to cut

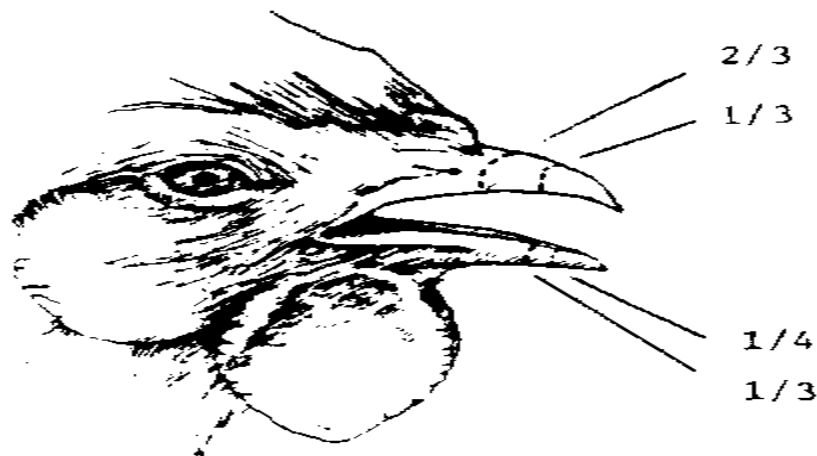


Figure 10: Showing standard to cut beak from upper and lower beak

You can measure beak length with a dressmaker's tape or a caliper. Guide to beak length

Farm managers provide the specifications of the trim they want, but they shouldn't ask for a trim that will compromise long-term bird welfare; industry has agreed this is anything less than a 5 mm beak trim at 8–12 weeks. A 5 mm trim will result in a small percentage of birds with beaks of 3 or 4 mm. No bird of any age should have a beak of less than 3 mm. You must not perform beak trims of less than 5 mm, except in day-old and 10-day-old birds, where no more than 3 mm and 4.5 mm, respectively, should be removed.

Catching chickens

There are several methods of catching older chickens. One is to use a catching hook:

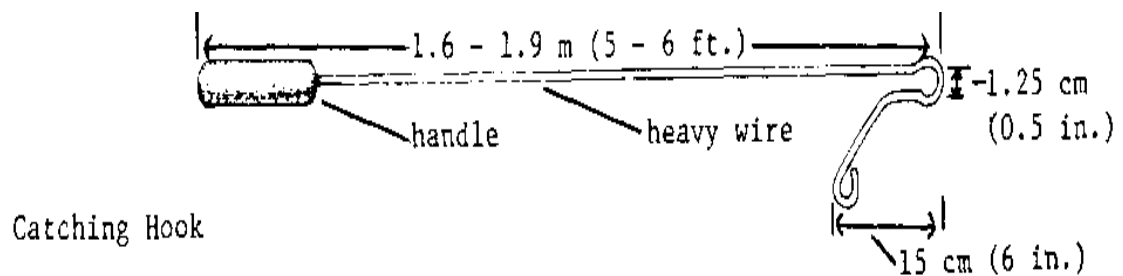


Figure 11: Chicken catching hook

To use the hook, quietly approach the target chicken from behind and, when close enough, rapidly hook the chicken's leg and pull steadily toward you.

Another way is to corral the chickens using a framed wire mesh or bamboo box with hinged corners on three sides with the fourth side open. This box can be used for catching large numbers of chickens, but at least two people are needed for this method. Before starting, remove all feeders, waterers and other equipment from the pen, leaving only the chickens and the litter. Next, corral the chickens as you move the opened box (or catching frame) across the floor. When a number of chickens are inside, close the box. Then you can easily reach in and pick up a chicken.

Self-Check -1

Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

3. Define re-trimming of beak (2 pts)
4. List the reasons for re-trimming of beak in poultry? (3pts)

Note: Satisfactory rating - 5points

Unsatisfactory - below 5points

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Information Sheet-2	Restraining poultry with net to calm capture
---------------------	--

How to catch poultry?

How to carry poultry chickens

- Put your hand above both wings
- Use your other hand to grasp both legs
- Lift

How to restrain poultry?

Manual restraining

- ✓ Cover the bird's wings with your hand
- ✓ Hold their legs and support their breast with your other hand



Or

- ✓ Place both of your hands over the bird's wings
- ✓ Once the bird is under control, slide one hand under its body, grasping its legs between your fingers, and support its breast on your palm
- ✓ Control the bird's wings with your other hand, or by holding it under your arm. The bird's head is then accessible for stunning. Or (smaller birds)
- ✓ Lift the bird and hold it by both legs



Self-Check -2

Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. Write steps of for chicken carrying (2 pts)
2. Write steps of for chicken restraining? (2 pts)

Note: Satisfactory rating - 4 points

Unsatisfactory - below 4 points

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Information Sheet-3	Performing Occupational Safety and Health Standards (OSHS) and following General Animal Husbandry Practices
---------------------	---

3.1. Performing Occupational Safety and Health Standards (OSHS)

OSH policies should include, as a minimum, the following key principles and objectives to which employers are committed, namely:

- (a) Promoting a preventive OSH culture within the enterprises, including positive attitudes and behavior regarding OSH issues;
- (b) Recognizing the biological differences between women and men and managing OSH in such a way that the OSH of all employees is protected and occupational accidents and diseases are prevented;
- (c) complying with relevant OSH national laws and regulations, voluntary programs, collective agreements on OSH and other requirements to which the enterprise subscribes or may wish to subscribe;
- (d) Identifying personnel, including senior managers and directors, to carry out specific responsibilities in the area of OSH in agriculture;
- (e) Ensuring that workers and their representatives are consulted and encouraged to participate actively in all elements of the OSH management system;
- (f) Regular monitoring and review of OSH arrangements;
- (g) Continuous improvement of the performance of the OSH manage

3.2. Following Goon Animal Husbandry Practices (GAHP)

- Care shall be taken to preserve the welfare of chickens.
- In case of injury, sickness or deformity, chickens shall be appropriately treated to avoid suffering.
- All chickens must have access to and are sufficiently provided with feed; water and space (refer to OIE guidelines on Animal Welfare).

3.2.1. Good Animal Husbandry (GAHP) Practices includes

- Animal cruelty,
- Animal welfare,
- Biosecurity issues,
- Husbandry practices that affect quality of animal product,
- Environmental issues and even nutritional issues.

3.2.2. Below are the pros and cons of chicken debeaking:

Pros

- Beak trimming not only stops a chicken from pecking one another. It also promotes excessive mortality in egg production and most significantly, the vicious habit of cannibalism.
- Numerous studies have backed up beak trimming, suggesting that it is beneficial to the pullet production criteria.
- Also, this practice is effective when it comes to the reduction of feed consumption as well as improvement of feed efficiency.
- Beak trimming can also delay sexual maturity in your flock. Most importantly, it improves egg production because it minimizes cases of hens eating their own eggs.
- Chicken debeaking will promote a positive attitude in your flock. This is true especially in breeds of chickens such as White Leghorn where it reduces the loss of feathers by preventing pecking and fearfulness.

- Taking into account the practice of beak trimming at the right time can help minimize some problems in your bird's future life. Which could affect the performance of your birds in general?

Cons

- Contrary to the positive contributions brought about by chicken debeaking. Animal welfare groups have criticized the practice, claiming that it is inhuman. The groups further explain that by trimming your birds' beaks. You are inflicting pain to them and this can have a negative impact on their wellbeing.
- Even though beak trimming to solve many problems among poultry. The practice is also destructive in one way or the other. Your flock could show visible physical damage as a result of debeaking.
- This process causes wounds to the birds, leading to bleeding from their beaks. The wounded areas can affect the feeding habits of your chickens. This can promote pecking from other birds due to the presence of open wounds around their beaks.
- There are stories of excessive beak trimming. This could cause permanent impairment to the beak functionality. One should use lot of care when performing beak trimming. This will protect your birds against injuries and possible impairment.
- Insufficient beak trimming can lead to beak regrowth. This means that you will have to subject your bird to yet another session of debeaking. This is painful, costly and stressful to the affected chickens.

Self-Check -3

Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. Define **OSHS?** (2 pts)
2. Describe pros and cons during chicken debeaking? (2 pts)

Note: Satisfactory rating - 4 points

Unsatisfactory - below 4 points

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Operation Sheet 1

Procedures before debeaking, during debeaking after debeaking

Procedure before debeaking

1. Be sure that the flock is in good health.
2. Let the birds fast for some hours, an empty crop gives less stress.
3. Do not vaccinate just before debeaking.
4. Separate debeaked and non debeaked pullets.
5. Debeak the birds near the house this causes less stress.
6. Sharpen knife or blade.
7. Supply the birds with vitamin-k for some days; this is likely to reduce bleeding.

Procedure during debeaking

1. Enough light to see what is done.
2. Use sharp knife or cauterizing blade.
3. Be seated during the work take rest now and then.
4. Do not burn or cut the tongue of the bird.
5. Cut the beaks of older bird separately.
6. Be sure the voltage is right.
7. Make sure that no beak is bleeding after debeaking
8. Handle the birds with care.
9. Regularly clean the knife during the work.
10. Work fast as much as possible but maintain quality.

Procedure after debeaking

1. Avoid feed restriction.
2. Add some vitamin K – and antibiotics to the feed for one week.
3. Dip bleeding beaks in some feed.

4. Give extra light for some days, to enable them eat more which will help healing process.
5. Check the flock regularly for lice.

LAP Test 1	Practical Demonstration
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Name: _____

_____ Date: _____
 Time started: 2:30 _____ Time finished: 3:30 _____

Instructions: You are required to apply the following tasks

Task 1. Cut the beaks of older birds separately

Task 2. Always cut the upper beak first (Cut 1/3 to 1/2 of the upper beak)

Task 4. Cut the lower beak to the same length or make it (slightly) longer.

References

- <http://europa.eu/!KX74dw> (English only)
- ASEAN Good Animal Husbandry Practices

Poultry Production

Level -III

Learning Guide-65

Unit of Competence: - Perform de-beak (Beak Trimming)

Module Title: - Performing de-beak (Beak Trimming)

LG Code: AGR PLP3 M15 LO4-LG-65

TTLM Code: AGR PLP3 M15 TTLM 1220v1

LO 4: Carry-out work to completion

Instruction Sheet	Learning Guide 65
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This learning guide is developed to provide you the necessary information regarding the following **content coverage** and topics –

- **Practicing proper disposal**
- **Storing tools, materials and equipment**
- **Collecting and updating records for reporting**

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 –**

- **Practice proper disposal**
- **Store tools, materials and equipment**
- **Collect and update records for reporting**

Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described in number 51 to 61.
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, 2 and 3” in page -53, 56 and 60 respectively.

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, 2, 3).
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-checks. This will form part of your training portfolio.

Information Sheet-1	Practicing proper disposal
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1.1. Disposing Materials

Disposing:- is removal or riddance of wastes, excess, scraps, manure, etc., under proper method. Is simply removal of excess or unwanted material safely. Tools and equipment should be stored and disposed according to the manufacturer's specifications, enterprise procedures and regulations. This is used to increases life span of tools and equipment and avoids scarcity of tools and equipment at critical periods.

After completion of all farm establishment activities all containers, leftover fluids, waste and other unwanted materials should be disposed safely and appropriately. Waste materials which may be toxic to human beings or pollutants environmental conditions should be properly disposed to minimize hazards.

1.1.1. Waste materials include;

- ❖ Manure
- ❖ Molding fed
- ❖ Scratch feeder/ watered
- ❖ litter and broken components,
- ❖ Bedding materials.

These may be recycled, re-used, returned to the manufacturer, or disposed of according to enterprise work procedures.

Classification/Type:-

There are two types of wastes.

- A. Solid wastes disposal (plastic bottle, scratch paper, animal dung)
- B. Liquid wastes disposal(industry released waste)
 - To remove waste and unwanted material safely from work site
 - To clean work site suitably and make it attractive

1.2. Importance of disposal

- Minimizes and reduces the risk of accidental injury to staff, clients, visitors, and the local community
- Helps provide an aesthetically pleasing atmosphere
- Reduces odors

Reduces the likelihood of contamination of the soil or ground water with chemicals or microorganisms

Self-Check 1

Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. What does it mean by disposing? (3 point)
2. Write types of disposing? (3 points)

Note: Satisfactory rating - 6 points

Unsatisfactory - below 6 points

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

Information Sheet-2	Storing tools, materials and equipment
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2.1. Storing tools and equipment

Storing is keep or accumulate (something) for future use.

Classification/Type

Depending on types of industry and policy of the management stores may be classified as three.

A. Centralized - materials are supplied to all departments by one store

B. Decentralized - for each department there is a separate store

C. Centralized stores with sub-stores - there is one central store which holds the stocks in general with separate sub stores for each department which gets supply from the central stores.

2.2. Importance of storing tools & equipment

- Better control & layout.
- Technical skill is high & supervision is better.

- Less storage space is needed because stocks should be kept as low as possible.
- Replenishment should be quicker.

How to Store Tools Properly

Regardless of where you choose to store your tools, there are a few basic tool storage ideas and tips to keep in mind before you put them away.

Follow the instructions. Some manufacturers will have specific instructions for how to store tools, so consult your manual first and foremost. It's important to follow these instructions, especially for larger power tools like saws or drills, so they remain in good working condition. Clean them off. Tools should be cleaned each time you use them. Wipe them down with a damp rag or towel to get rid of any dirt, dust, grease or debris. Make sure garden tools are free of mud and grime. Everything should be completely dry before placing it in storage to avoid rust developing.

Use original cases. Power tools usually come in hard, plastic cases, and it's recommended to keep these cases for storage whenever possible. These cases will keep your power tools in storage safe from extreme conditions, plus all the parts can be stored right alongside them in the case. No more lost power cords or chargers!

Invest in sturdy storage containers. If you don't have the original container, or you're storing smaller hand tools, invest in some sturdy containers. This will not only keep your tools organized, but also allows them to be easily transportable to your next project area.

Store in a safe, dry place along with having the right containers, another way to protect your tools is to ensure that area you're storing them in is safe and dry. Water or humidity can cause damage to tools, especially power tools.

Go vertical. Tools should never be stored on the ground. Invest in some shelving for smaller tools, or hang pegboard along your workbench or on a wall in your garage. You'll be able to hang things like wrenches, hammers, box cutters, garden equipment and many other tools so they'll be easy to access at any time.

Keep these tool storage ideas and tips in mind, and your tool collection will be organized and accessible for that next home project, whether it's something big like putting an addition on your home or simply just finally fixing that leaky faucet!

Self-Check 2

Written Test

Directions: Answer all the questions listed below.

1. What does it mean by storing tools mean? (3 point)
2. Write types of storing (3)

Note: Satisfactory rating - 6points

Unsatisfactory –below 6

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

1. _____
2. _____

Information Sheet-3

Collecting and updating records for reporting

3.1. Data collection

Data collection is defined as the procedure of collecting, measuring and analyzing accurate insights for research using standard validated techniques.

Most managers conduct post-factum analysis, collecting data on a weekly basis. From this, weekly averages can be calculated, and the performance of the flock over the preceding week is evaluated.

However, taking this approach means that detection of problems is later than it could be, and potentially avoidable losses cannot be prevented.

To better understand what is going on in the poultry house, and consequently have greater control over production processes, data need to be collected in real time and looked at on at least a daily basis.

However, real time data collection and daily examination only address part of the issue, and it does little to reduce the burden of having to deal with statistics and the time that this consumes. However, there are now tools that are able to learn how birds behave under normal conditions and are able to detect problems at an early stage should they start to arise.

3.2. Updating records

Updating records means a manipulation involving adding, modifying, or deleting data to bring a file or database up to-date. A relatively minor release or version upgrade to an existing software product that adds minor features or corrects bugs.

What are the records during beak trimming?

- ✓ Data on numbers of properly trimmed birds
- ✓ Data on numbers of improperly retrimmed birds

3.3. Reporting collected and updated data

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.

Why Reporting?

- Accountability Reasons
- Program Monitoring Reasons
- Program Evaluation Reasons

- Program Improvement Reasons
- Sharing the Lessons Learned with Other

The reports shall include the following components:

- | | |
|--------------------------------|--------------------|
| 1. Develop Cover page | 6. Discussion |
| 2. Introduction | 7. Conclusion |
| 3. Objective or purpose | 8. Recommendation |
| 4. List of materials and tools | 9. Annex/ resource |
| 5. Procedure or steps | 10. Reference |



Figure 12 Reporting faulty or insufficient items to supervisors

Self-Check 3

Written Test

Directions: Answer all the questions listed below.

1. List at least 3 reasons of reporting (6%)
2. What did you do if your debeaker is malfunctioned if you work in poultry farm enterprise (4%)

Note: Satisfactory rating - 10 points

Unsatisfactory - below 10 points

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer

1. _____

2. _____

Operation Sheet 1	Procedures of reporting work outcomes, feedback and improvement for future action
-------------------	---

Use the following steps or procedures to write the report of your poultry farm work activity & outcomes.

Steps

1. Select work activities
2. Decide on the procedure
3. Refer information
4. Record information
5. Write report orderly
6. Sent the organized report to the concerned body

LAP Test 1	Practical Demonstration
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Name: _____ Date: _____

Time started: _____ Time finished: _____

Instructions: You are required to apply the following tasks

Task-1. Report faulty or insufficient items poultry farm

The teachers (who developed the Learning Guide)

No	Name of Learning guide developer	TVET Represent	Phone number	e-mail
1.	Abadi Brhanu	Maichew ATVET College	0920870056	adonayabadi@gmail.com
2.	Alemayehu Tolera	Bako ATVET College	0994132626	toleraalex@gmail.com
3.	Alemu Abate	Burie Poly-technic TVET College	0912355539	adoni4@gmail.com
4.	Alula Tesfaye	Assosa ATVET College	0912004697	alula188@gmail.com
5.	Bekele Abdissa	Agarfa ATVET College	0920839098	bakeabdi@gmail.com
6.	Dereje Kebede	Nedjo ATVET College	0911530210	derejekebede2012@gmail.com
7.	Ewunetu Bekele	Bako ATVET	0920096917	esewunetu@gmail.com

		College		
8.	Mesfin Getachew	Walaita Soddo ATVET College	0916475289	dukekeshamo@gmail.com
9.	Terefe Tolcha	Alage ATVET College	0911067132	terefetc@gmail.com