



Artificial insemination

LEVEL II

Learning Guide #10

Unit of Competence: Follow Site Quarantine

Procedures

Module Title: Following Site Quarantine

Procedures

LG Code: AGR ATI2 M04 0919Lo1LG10

TTLM Code: AGR ATI2 TTLM 0919v1

**LO1: Prepare to work in quarantine
site**



INSTRUCTION SHEET	<i>Learning Guide 10</i>
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This learning guide is developed to provide you the necessary information regarding the following content coverage and topics –

- Decontaminating Personal and/or work vehicles
- Identifying and reporting potential contaminants
- Washing hands before handling livestock, feed, plant stock or other products.
- Putting on Appropriate clothing and footwear

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 –

- Decontaminating Personal and/or work vehicles
- Identifying and reporting potential contaminants
- Washing hands before handling livestock, feed, plant stock or other products.
- Putting on Appropriate clothing and footwear

Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described below 3 to 6.
3. Read the information written in the information “Sheet 1, Sheet 2, Sheet 3 and Sheet 4”.
4. Accomplish the “Self-check 1, Self-check 2, Self-check 3 and Self-check 4” **in page - 7, 10, 12 and 14** respectively.
5. If you earned a satisfactory evaluation from the “Self-check” proceed to “Operation Sheet 1,” **in page -17.**
6. Do the “LAP test” **in page – 18** (if you are ready).



Information Sheet- 1	Decontaminating Personal and/or work vehicles
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1.1. General concept of Quarantine

1.1.1. Definition of quarantine

Quarantine is designed to prevent the introduction, establishment, or spread of animal, plant or human pests and diseases. Pests and diseases could be carried, by animals, in animal products such as meat, in plants or in plant products such as timber, or soil. All of these must undergo quarantine inspection and may require treatment, or in some cases destruction.

1.2. Purpose of quarantine

The purpose of such quarantine-for-decontamination is to prevent the spread of contamination, and to contain the contamination so that others are not put at risk from a person fleeing a scene where contamination is suspect. It can also be used to limit exposure, as well as eliminate a vector.

1.3. Decontaminating Personal

Facilities for disinfection of feet [footbaths containing hypochlorite solution 70 percent alcohol] should be provided for use upon entering and exiting.

Institutions must take precautions to minimize the risk of exposure of animal care personnel to zoonotic diseases that may be present in newly acquired animals. These are:

- Use of disinfectant foot baths, wearing of appropriate protective clothing and masks in some cases, and minimizing physical exposure in some species.
- A footbath containing disinfectant should be placed at the entrance door to the quarantine facility

1.4. Ensuring the decontaminating personal and/or work vehicles



The Decontamination involves a combination of physical and chemical procedures that are used to remove soiling and inactivate the target disease organism. The process should also take into account appropriate disposal of waste products.

The decontamination process comprises a number of stages. These are:

- ✓ planning: identification and assessment of risks, design of efficient and effective procedures, and training of personnel;
- ✓ Implementation: cleaning, disinfection, and waste treatment and disposal; and
- ✓ Testing for effectiveness.



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 facilities/solution for disinfection of feet and hand? (3pts)
2. What must be take precautions to minimize the risk of exposure of animal care personnel to zoonotic diseases (5pts)
3. What are the use of disinfection at all? (5pts)

Note: Satisfactory rating - 7 points Unsatisfactory - below 7 points
You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____
Rating: _____

Name: _____

Date: _____

Short Answer Questions



Information Sheet- 2	Identifying and reporting potential contaminants
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2.1. Potential contaminants

Biosecurity is to stop transmission of disease causing agents by preventing, minimizing or controlling cross-contamination of body fluids (feces, urine, saliva, etc.) between animals, animals to feed and animals to equipment that may directly or indirectly contact animals. Biosecurity management practices are designed to prevent the spread of disease by minimizing the movement of biologic organisms and their vectors (**viruses, bacteria, rodents, flies**, etc.) onto and within your operation.

Potential contaminants; include

- Pathogens entering on clothing/footwear, equipment, vehicles or items being delivered to the enterprise.
- foodstuffs, including food for animal, bee or human consumption, vaccines, water or soil, or be brought on to the site by new livestock, bees or pests.
- If the potential contaminants have been happened in the working site the worker should be report to the organization or the supervisor



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 are the use of biosecurity? (5pts)
2. What are the potential contaminants include? (3pts)

Note: Satisfactory rating - 7 points Unsatisfactory - below 7 points
You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____
Rating: _____

Name: _____

Date: _____

Short Answer Questions



Information Sheet-3	Washing hands before handling livestock, feed, plant stock or other products
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2.1. Facilities in quarantine

Access to the Quarantine Facility should only be through a personnel entrance leading to a separate outer change room provided with facilities for staff and quarantine officers to wash their hands and change outer clothing prior to entering or leaving the quarantine area.

Staff and visitors who have had contact with water or aquatic animals should wash their hands and forearms with soap and water prior to exiting the Quarantine Facility. Thorough washing of hands is recommended when exiting any animal facility or farm.

Hand washing facilities

- Hot running water
- Permanent sinks
- Liquid soap
- Paper towels



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 sanitizing mean? (5pts)
2. What are the hand washing facilities (5pts)

Note: Satisfactory rating - 8 points Unsatisfactory - below 8 points
You can ask you teacher for the copy of the correct answers.

Answer Sheet

Name: _____

Date:

Score = _____

Rating: _____

Short Answer Questions



Information Sheet- 4	Putting on appropriate clothing and footwear
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4.1. Put on appropriate clothing and footwear in quarantine site

- ❖ Staff entering the isolation premises (quarantine) must always change into protective clothing and footwear.
- ❖ On leaving, the overalls and footwear must be removed and left within the isolation area, and the footwear must be disinfected.
- ❖ Hands should be washed, or otherwise disinfected, on entering and leaving.

4.2. Clothing and personal protective equipment

- Wearing appropriate clothing and using protective equipment where necessary can reduce the risk of an accident occurring.
- Wear close fitting shirts, trousers or shorts. Wear fitting clothing during work in quarantine site
- Wear sturdy, fully enclosed shoes with a good grip on the sole.
- Wear a wide brimmed hat to prevent sunburn.
- Tie up long hair and remove any jewellery.

Therefore provide Personal Protective Equipment (PPE) and facilities for those visiting and working site. This may include provision of

- Overalls
- Boots
- Disposable gloves
- Hand Washing



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. One is not facilities for those visiting and working on site (5pts).
A. Overall B. Boots C. Disposable glove D. Animals
2. Write PPEs (5pts)

Note: Satisfactory rating - 5 points Unsatisfactory - below 5 points
You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____
Rating: _____

Name: _____

Date: _____

Short Answer Questions



List of reference materials

- Marilyn Buhman, Grant Dewell and Dee Griffin.2000. Biosecurity Basics for Cattle Operations and Good Management Practices (GMP) for Controlling Infectious Diseases.File under: ANIMAL DISEASES F-9, General Livestock Issued September 2000, 2,000
- <https://www.scotlandshealthyanimals.scot/disease-avoidance/farmers-livestock-keepers/how-you-can-avoid-disease/ppe-and-hygiene/>



Artificial insemination- II

Learning Guide #11

**Unit of Competence: Follow Site Quarantine
Procedures**

Module Title: Following Site Quarantine Procedures

LG Code: AGR ATI2 M04 0919LO2LG11

TTLM Code: AGR ATI2 TTLM 0919v1

**LO2. Undertake quarantine site
activities/work**



INSTRUCTION SHEET

Learning Guide 11

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

- Handling and storing chemicals and/or medications
- Separating and marking materials and other products
- Identifying and reporting pest or parasite infestation
- Identifying OHS hazards and taking appropriate action
- Disposing Waste Products
- Designing and implementing animal quarantine plans
- Recording observations / quarantine works

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 –

- Hand and store chemicals and/or medications
- Separate and mark materials and other products
- Identify and report pest or parasite infestation
- Identify OHS hazards and taking appropriate action
- Dispose Waste Products
- Design and implement animal quarantine plans
- Record observations / quarantine works

Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described below 3 to 6.
3. Read the information written in the information “Sheet 1, Sheet 2, Sheet 3 and Sheet 4”.
4. Accomplish the “Self-check 1, Self-check 2, Self-check 3, Self-check 4, Self-check 5, Self-check 6 and Self-check 7” **in page -23, 25, 29, 32, 36, 40, and 42** respectively.
5. If you earned a satisfactory evaluation from the “Self-check” proceed to “Operation Sheet 1,” **in page -43.**
6. Do the “LAP test” **in page ____** (if you are ready).



Information Sheet- 1	Handling and storing chemicals and/or medications
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1.1. Handling and storing chemicals

Working around chemicals is one of the most common and dangerous hazards encountered during picking. To avoid possible electrocution, make sure you follow a few simple practices when picking:

Safe handling of Chemicals and/or medications used in quarantine

- ❖ Working around chemicals is one of the most common and dangerous hazards encountered during picking.
- ❖ Check whether all chemicals and medicines are safe.
- ❖ Carefully monitor chemicals, medicine and vaccines whether they are placed out of reach of children and direct sun light
- ❖ If chemicals and medicine come into contact with feed and rich of children, try to break the contact
- ❖ All farm chemicals can be dangerous, so operators must ensure their safety conscious at all times.
- ❖ Always follow the directions outlined in the manual - never operate using defective equipment, don't interfere with safety devices
- ❖ To reduce the risk of injury, perform regular maintenance checks and procedures on farm chemicals to keep it in a good working condition.

1.2. Handling and storing medications

Disinfectants, antibiotics and other chemicals and drugs for use in quarantine facilities should be chosen and applied in conformation with local laws and regulations and in a manner that ensures the protection of personnel, the aquatic animals being held and the external environment from their possible harmful effects.



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. _____ is one of the most common and dangerous hazards encountered during picking. (3pts)
2. How Chemical disinfectants are stored? (3pts)

Note: Satisfactory rating - 3 points Unsatisfactory - below 3 points
You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____
Rating: _____

Name: _____

Date: _____

Short Answer Questions



Information Sheet- 2	Separating and marking materials and other products
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A keeper should be designated to care only for quarantined animals or a keeper should attend quarantined animals only after fulfilling responsibilities for resident species.

Equipment used to feed and clean animals in quarantine should be used only with these animals. If this is not possible, then equipment must be cleaned with an appropriate disinfectant (as designated by the veterinarian supervising quarantine) before use with post-quarantine animals.

Many disease agents can survive for extended periods of time in soil or other organic material like bedding, old feed, etc. Animals or humans can then acquire the disease agent as discussed in previous sections: from the environment through inhalation of aerosolized microbes, via oral consumption, or from direct contact with an animal or with fomites. Therefore, environmental contamination should not be ignored but studied. The routes the disease agent uses to get into the animal can be controlled if the animal's environment is controlled.



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. Where is many disease agents can survive for extended periods of time? (5pts)
2. Animal or human can then acquire the disease agent through_____?
(3pts)

Note: Satisfactory rating - 3 points Unsatisfactory - below 3 points
You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____
Rating: _____

Name: _____

Date: _____

Short Answer Questions



Information Sheet- 3	Identifying and reporting pest or parasite infestation
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3.1. Prevention of Environmental contamination

- The premises (sheds, stables, and kennels) and pastures should be prevented from contamination.
- Elimination of parasites from the host at the most appropriate time by use of antiparasitics thereby preventing pasture contamination.
- Destruction of dult parasites in hosts prevents expulsion of eggs or the larvae and the associated contamination of the environment.
- Ovicidal drugs should preferably be used to destroy the eggs, thereby preventing environmental contamination.
- Anthelmintic treatments prior to rainy seasons using larvicidal drugs will prevent contamination of pastures at a time when conditions are becoming favorable for egg and larval development.
- Proper faeces disposal will give satisfactory control of faecally transmitted monoxenous parasites of animals.
- Faeces or litter may be heaped to destroy the eggs/oocysts of parasites.
- Pens and pastures should not be overstocked.

Reducing the stocking rate can significantly reduce the parasite burden in animals and the associated problem of contamination in sheds and pastures.



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. How can you control environmental contamination? (5pt)

Note: ²**Satisfactory rating - 4 points** **Unsatisfactory - below 4 points**
You can ask your teacher for the copy of the correct answers.

Answer Sheet

Score = _____
Rating: _____

Name: _____

Date: _____

Short Answer Questions



Information Sheet-
4

Identifying OHS hazards and taking appropriate action

4.1. Hazards and action in the quarantine site

- Feed should be placed in troughs that cannot be contaminated by faeces and waterer should be kept clean and free of contaminants.
- Good grazing management will control pasture or grassland borne helminthic infections.
- Use of clean or safe pastures (not grazed for 6 to 12 months) will help to control helminth problems.
- Rotational grazing of livestock species should be followed to minimize or limit the infection from pasture.
- All new arrivals to the farm should be isolated for at least 30 days and dewormed.
- Young animals are generally more susceptible to parasites than adults. Therefore young animals should be housed separately from adult animals.
- Infected/Infested animals should be removed from the flock or herd and housed separately.
- Treatment should be followed by chemoprophylaxis to prevent reinfection.
- Vaccines may be used to prevent infection, if suitable vaccines are available.
- Prompt and proper disposal of manure and other filth from the farm premises.
- Regular scrubbing and cleaning of feed and water troughs as well as whitewashing their interior at least once in a week.
- Leveling up all ditches, low marshy areas, pits etc. in and around animal houses so that water may not stagnate in them.
- Filling up or fencing of all stagnant water pools, ponds etc. around the farm and on pastures so that animals may not get access to them. It is always better to have piped water supply to farm animals.
- Housing animals in clean houses with paved floors.
- Animals of different ages should be housed separately.
- Younger animals should never be mixed with older ones.



- Proper deworming of all such animals before putting them in a shed or bringing them into the farm.
- If grazing is practiced-division of pasture into several blocks and practicing rotational grazing in these blocks.
- Feeding of cultivated fodders is more helpful in checking pasture-borne infections.
- Preventing humans from defecating on pastures or around the farm, as this may cause contamination with tape worm eggs.
- Care should be taken to see that dogs (intermediate hosts), crows and other birds (mechanical carriers) do not gain access to the animal farm.
- Control of snail population may result in control of liver fluke infestation to some extent.
- It is worthwhile trying reduction of snail population by treating infected pastures, ponds, streams, etc. with copper sulphate.
- A concentration of one part of copper sulphate in one million parts of water is generally recommended but stronger solution may be necessary when large quantities of decaying organic matter are present



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. List feed equipment and non-feed equipment (5pts)
2. Why Pit silos should not be accessible from non-feed handling equipment?(3pts)

Note: Satisfactory rating - 4 points Unsatisfactory - below 4 points
You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____
Rating: _____

Name: _____

Date: _____

Short Answer Questions



Information Sheet- 5	Disposing Waste Products
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5.1. Waste management

5.1.1. Animal's waste product

Animal faeces and hay from the larger animals is stored in the refuse pit or other suitable areas until the completion of the quarantine period for that consignment of animals. Once completed, the manure may be disposed of in appropriate way.

5.1.2. Water Waste

The water treatment plants at the animal quarantine stations treat all water waste as per guideline requirements prior to disposal.

5.1.3. Dispose needles and syringes

Needles, syringes and other sharps are to be temporarily stored in designated sharps bins. When the bins are full they are to be destroyed at an approved facility.

5.1.4. Disposal animal wastes

Dispose animal wastes properly to control diseases and to prevent air and water pollution. Apply livestock and poultry manure as fertilizer for crops and grasses, cultivation



Self-check-5	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 benefits of animal waste? (5pts)

Note: Satisfactory rating - 6 points Unsatisfactory - below 6 points
You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____
Rating: _____

Name: _____

Date: _____

Short Answer Questions



Information Sheet- 6	Designing and implementing animal quarantine plans
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1.1. Layout and Design of Premises

1.1.1. General Layout

The premises must be designed, constructed and operated so that:

- ↪ It has a minimum of five units
- ↪ Units should be constructed in self-contained groups so as to minimise the risk of disease spread and to aid security at the premises
- ↪ Prominent signs are displayed at each entrance through the perimeter to indicate that the premises are approved quarantine premises and that unauthorised entry is prohibited
- ↪ No animal has contact with another animal (unless licensed to share a unit)
- ↪ Every animal has direct access to an individual exercise run from the sleeping compartment or alternatively, in the case of cats, a sleeping compartment and exercise run combined. The use of common exercise runs is prohibited
- ↪ It is not possible for anybody to gain access to animals without the knowledge of kennel staff
- ↪ All unit doors required for the security of animals are fitted with devices of a type which make them escape-proof to animals. Doors and locks must be such that:
 - The animal cannot escape when the door is closed
 - The door can be secured from the inside as well as from the outside, and
 - If visitors are locked in they cannot unlock the door themselves.
- ↪ All entrances to a block or section of units have an outer door and an inner door forming a trap to prevent an animal escaping. The distance between these doors must be such that anything normally used in that block may be taken through the trap in such a way that there is always one door shut. The inner door, if solid, must have an escape-proof viewing panel in it. Both doors must open inwards and be completely self-closing and latching self-closing. The use of an office or other room as a trap is prohibited. Run end gates, if provided, must open into a trapped safety



corridor. Whatever the design of the accommodation, there must be three doors between the animal in its unit and the area between the buildings and the perimeter fence. Untrapped fire exits, for use solely as escape routes in an emergency, are permitted. Such fire exits must be of a type approved by the Fire Prevention Officer and must be marked to indicate that they are fire exits for emergency use only and secured in such a manner that the door can only be opened in an emergency.

- ↪ Wash hand basins with a supply of hot and cold running water are provided within the perimeter fence for the use of staff
- ↪ There is a veterinary examination and treatment room within the perimeter fence for use only for the treatment of animals in quarantine
- ↪ Animal units provide a means of lighting sufficient to allow the proper disinfection and cleansing of units and the safe-handling and examination of animals at all times
- ↪ All parts of the premises are served by an efficient covered drainage system subject to the minimum requirements of local by-laws. It must be impossible for drainage, including surface drainage, to contaminate adjoining units or passageways. Drains must be rodent proof.



Self-check-6	Written test
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Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. How much premises must be constructed? (5pts)
2. A quarantine facility should consist of a minimum of two discrete areas physically separated (3pts)
A. True B. False
3. Which of the following is not included in the quarantine construction (3pts)
A. Heating B. ventilating C. air-conditioning D. River

Note: Satisfactory rating - 6 points Unsatisfactory - below 6 points
You can ask your teacher for the copy of the correct answers.

Answer Sheet

Score = _____
Rating: _____

Name: _____

Date: _____

Short Answer Questions



Information Sheet- 7	Recording observations / quarantine works
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7.1. Record keeping for internal review and auditing

- The station manager must ensure that the procedures according to “**Quarantine Station Operational Guideline**” by all quarantine station staff.
- All incidents to do with export animals should be reported to the station manager/quarantine inspector and other station staff at weekly/fortnightly staff meetings, and recorded on the animal's history sheet.
- Daily observations are to be recorded on animal health history sheets/cards.
- The quarantine management should give high priority to auditing and reviewing its activities. Audit and review are essential elements of effective quarantine management.
- The animal quarantine stations must keep copies of all relevant information pertaining to exported animals. Copies should be made of all vaccination records and kept with the history sheets and other relevant export information.
- The original animal health certificate should be given to the owner or exporter.
- After animals have been released from quarantine, their history sheets and associated documentation should be archived and be easily accessible for auditing and information purposes.
- Records must be kept of the animals in the quarantine station and made available to the Veterinary Authority to enable monitoring

7.2. Record information

The person in charge of the isolation unit must keep the following records,

- The date, number and identification of animals entering and leaving the isolation facility.
- Copies of the export health certificates and border crossing certificates accompanying imported animals.
- Significant health observations, cases of illness and deaths on a daily basis.



- Dates and results of testing.
- Dates and types of treatment.
- Dates and names and addresses of persons entering the isolation unit

Self-check-7	Written Test
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Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. One is not record information in quarantine station? (5pts)
A. Dates and results of testing. C. Dates and types of treatment.
B. Potential contaminants D. Date, number and identification of animals
2. The original animal health certificate should be given to the owner or exporter(3pts)
A. True B. False

Note: Satisfactory rating - 4 points Unsatisfactory - below 4 points
You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____
Rating: _____

Name: _____

Date: _____

Short Answer Questions



List of Reference

- Marilyn Buhman, Grant Dewell and Dee Griffin.2000. Biosecurity Basics for Cattle Operations and Good Management Practices (GMP) for Controlling Infectious Diseases.File under: ANIMAL DISEASES F-9, General Livestock Issued September 2000, 2,000
- http://agritech.tnau.ac.in/expert_system/cattlebuffalo/general%20disease%20prevention.html
- *Animal Health and Livestock Services Act, 2055 (1999).Animal Health and Livestock Services.*
- www.lawcommission.gov.np



Artificial insemination-II- Learning Guide #12

**Unit of Competence: Follow Site Quarantine
Procedures**

**Module Title: Following Site Quarantine
Procedures**

LG Code: AGR ATI2 M04 0919LO3LG12

TTLM Code: AGR ATI2 TTLM 0919v1

**LO3. Follow quarantine site
procedures**



INSTRUCTION SHEET

Learning Guide 12

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

- Informing visitors for quarantine procedures
- Providing appropriate clothing and footwear for visitors
- Keeping gates and doors locked and maintaining security fence
- Checking deliveries to site

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 –

- Inform visitors for quarantine procedures
- Provide appropriate clothing and footwear for visitors
- Keep gates and doors locked and maintaining security fence
- Check deliveries to site

Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described below 3 to 6.
3. Read the information written in the information “Sheet 1, Sheet 2, Sheet 3, Sheet 4, Sheet 5, Sheet 6 and Sheet 7”.
4. Accomplish the “Self-check 1, Self-check 2, Self-check 3 and Self-check 4” **in page -48, 51, 54 and 57** respectively.
5. If you earned a satisfactory evaluation from the “Self-check” proceed to “Operation Sheet 1, Operation Sheet 2 and Operation Sheet 3” **in page.**
6. Do the “LAP test” **in page –** (if you are ready).



Information Sheet- 1	Informing visitors for quarantine procedures
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All new staff/visitors should be advised by the station manager about their safety responsibilities. This include:-

- evacuation procedures
- fire safety procedures and the location and use of fire extinguishers and hydrants
- location of first aid equipment
- when to have an accident form completed by the station manager
- the need to complete hazard report forms

New staff should familiarize themselves with the Department's safety policy and to be informed of matters which relate to their work area. They will need to be made aware of the general principles of good management and machinery care and specific safety hazards, which are relevant to the station.



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 factors must be considered during quarantine?

Note: Satisfactory rating - 5 points Unsatisfactory – below 5 points
You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____
Rating: _____

Name: _____

Date: _____

Short Answer Questions



Information Sheet- 2	Providing appropriate clothing and footwear for visitors
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Provide PPE for visitors are used to:

- To promote and secure the health, safety and welfare of persons at quarantine site
- To protect persons at site against hazards
- To assist in securing safe and hygienic work environments
- To reduce, eliminate and control the hazards to which persons are exposed at the site
- To foster co-operation and consultation between, and provide for, the employees in the formulation and implementation of health and safety standards to current levels of technical knowledge and development
- To provide for formulation of policies and for the co-ordination of the administration of laws relating to occupational health, safety and welfare
- To promote education and community awareness on matters relating to occupational health, safety and welfare.

Working in an animal facility and the specific protective measures to reduce the risk, with an emphasis on personnel protective equipment (PPE).



Overall/cloths



Steel toed shoes



Slip/water resistant rubber soled



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. Which of the following is not purpose of PPE? (3pts)
 - A. To secure the health, safety and welfare of persons
 - B. To protect persons against hazards
 - C. To reduce, eliminate and control the hazards
 - D. None
2. What are personnel hazards in the quarantine site (5pts)
3. List the types of PPE (4pts)

Note: Satisfactory rating - 6 points Unsatisfactory - below 6 points
You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions



Information Sheet- 3	Keeping Gates and doors locked and maintaining security fence
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3.1. Quarantine station securely

The quarantine station must be securely fenced with livestock-proof fencing and with controlled entry, restricted to people authorized by the veterinary authority

It is not possible for anybody to gain access to animals without the knowledge of kennel staff. All unit doors required for the security of animals are fitted with devices of a type which make them escape-proof to animals. Doors and locks must be such that:

- I. The animal cannot escape when the door is closed
- II. The door can be secured from the inside as well as from the outside, and
- III. If visitors are locked in they cannot unlock the door themselves.



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. All unit doors should be securely fitted with a device. Why? (5pts)

Note: Satisfactory rating - 8 points Unsatisfactory - below 8 points

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

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions



Information Sheet- 4	Checking deliveries to site
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Quarantine Service Delivery

Precautions to minimize contaminating equipment in quarantine deliveries. These precautions include the following:

- Take care to limit the amount of contamination that comes into contact with heavy equipment and vehicles.
- If contaminated tools are to be placed on non-contaminated equipment or vehicles for transport to the decontamination pad, use plastic to keep the equipment or vehicles clean.
- If samples must be taken from a site, bag the sample containers before removing them from the site.

Service delivery involves the inspection of cargoes, containers, baggages, etc. at all the seaports, airports and land borders to ensure compliance with the Act. All imports/exports of animals, animal products etc can only be done under a permit issued by the Quarantine Service which will state in which form these animals and their products can be exported or imported into foreign. The service delivery has interest in the source of the animals, their products and by-products which most times are used as raw materials for food products like, cheese, milk, corned beef and others like toilet soaps



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. What will be inspected in service deliveries? (5pts)
2. All imports/exports of animals, animal products etc can only be done under a permit issued by the Quarantine Service? (3pts)

A. True

B. False

Note: Satisfactory rating - 4 points Unsatisfactory - below 4 points

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

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions



Artificial insemination- II

Learning Guide #13

**Unit of Competence: Follow Site Quarantine
Procedures**

Module Title: Following Site Quarantine Procedures

LG Code: AGR ATI2M04 0919Lo4LG13

TTLM Code: AGR ATI2 TTLM 0919v1

**LO4. Respond to quarantine site
breach or problem**



INSTRUCTION SHEET

Learning Guide 13

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

- Identifying and reporting specific problem and its location
- Cleaning and disinfecting quarantine site and location of breach
- Isolating and taking measure on suspected and sick livestock, plant stocks and other items
- Recording information about breach or problems

This guide will also assist you to attain the learning outcome stated in the cover page. Specifically, upon completion of this Learning Guide, you will be able to –

- Identify and report specific problem and its location
- Clean and disinfect quarantine site and location of breach
- Isolate and take measure on suspected and sick livestock, plant stocks and other items
- Record information about breach or problems

Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described below 3 to 6.
3. Read the information written in the information “Sheet 1, Sheet 2, Sheet 3, Sheet 4, Sheet 5, Sheet 6 and Sheet 7”.
4. Accomplish the “Self-check 1, Self-check t 2, Self-check 3 and Self-check 4” **in page -62, 66, 69 and 71** respectively.
5. If you earned a satisfactory evaluation from the “Self-check” proceed to “Operation Sheet 1, Operation Sheet 2 and Operation Sheet 3” **in page.**
6. Do the “LAP test” **in page –** (if you are ready).



Information Sheet- 1	Identifying and reporting specific problem and its location
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Any disease out breaks in a farm/village area should be immediately reported to the concerned bodies of the vicinity. The two main issues to address in a successful insecurity management program are isolation, and sanitation.

1. Isolation

The most important step in disease control is limiting contact, and movement of livestock. This issue is of special importance for new animals arriving on the farm/ranch, including replacement animals, breeding animals, or animals returning from livestock shows. Even co-mingling between established groups of livestock on the farm/ranch should be minimized by isolation.

2, Sanitation

The sanitation component of biosecurity addresses the issue of the disinfection of people, equipment, animals, and material entering the ranch/farm and maintained cleanliness of people and equipment. Avoid using common syringes and needles for vaccination, blood testing, or administering animal health product.

Checklist for Sanitation

- Attempt to prevent manure contamination of feed and equipment used orally.
- Always clean equipment used orally between animals.
- Attempt to prevent cross contamination between healthy and sick/dead cattle.
- Regularly evaluate activities on my operation to assess the potential for contaminating cattle.
- If manure accidentally contaminates feed or water, an immediate remedy is provided.
- Use different equipment to feed and to clean pens, or completely clean between use.



- Never step in the feed bunk.
- Sometimes leave manure–hauling equipment in pens with different groups of animals.
- Clean contaminated vehicles and equipment before use around healthy cattle.
- Routinely clean and disinfect feeding equipment and cattle handling equipment.
- Routinely clean and disinfect equipment used to medicate cattle.

Fences and foot baths at the quarantine site

- Footbaths should be available not only at the entrance/exit of the quarantine premises, but also between individual holding rooms within the premises.
- Personnel should use the footbaths as they pass from one room to another.
- After use all equipment including work surfaces should be effectively cleaned and disinfected.
- Because of the aerosol risk power hoses should not be used, except with the agreement of the approved veterinarian
- The quarantine site must be fenced to prevent the entrance of wildlife and stray persons and to prevent the escape of quarantined animals from the quarantine facility
- the fencing should be of construction (material, mesh type and size) sufficient to prevent susceptible species passing through
- should have gates that is lockable
- for those animals permitted to be outside, fencing and paddock / field selection must be adequate to prevent contact between the quarantined animals and other animals of the susceptible species
- this can be accomplished either by double fencing of the paddocks or by preventing concurrent presence of susceptible species in the neighboring fenced fields / paddocks





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 two main issues to address in a successful insecurity management program? (5pts)
2. What are the most important step in disease control? (5pts)
3. Where is the area offfootbaths should be set/availablein the quarantine site (5pts)

Note: Satisfactory rating - 8 points Unsatisfactory - below 8 points
You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____
Rating: _____

Name: _____

Date: _____

Short Answer Questions



Information Sheet- 2	Cleaning and disinfecting quarantine site and location of breach
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2.1. Cleaning and sanitizing material

➤ Cleaning

Cleaning refers to removal of matter from a surface on which it is not acceptable. Soil surface should be contact with a cleaning agent for adequate time and sufficient pressure should be applied, if required, to remove the soil. Cleaning involves two steps: wash step and rinse step. Equipment should be carefully selected and, washed, and maintained before they can be sanitized.

Sanitizing is the processes of destruction of micro-organisms on surface after washing and rinsing. The purpose of sanitizing is to reduce the microbial count to a safe level. It is achieved through heat and application of chemical compounds.

Both cleaning and sanitizing from the basis of livestock production service sanitation and their purposes are:

- 1). Reduce health hazards by avoiding contamination
- 2). Prevent the spread of diseases, and food & water contamination,
- 3). Control abnormal odors, and
- 4). Create conducive environmental conditions.

Wash; Mechanical elimination of gross soiling containing pathogen

Clean; Eliminate remaining organic matter of soiling adhering to the surface

Rinse; Remove traces of soaps or detergents

Disinfect; Destroy target pathogen

Rinse; Remove traces of chemical disinfectants

2.2. Facilities for cleaning and disinfection

- Hoses or pressure washers
- Brushes and buckets
- Disinfectant supplies with clear instructions for use



- Disinfectant footbaths, where appropriate

Depending upon the disease status of your animals, you may have to provide

- Showers
- Clean overalls and boots
- Disinfectant footbaths placed at the entrance to your site

6.3. Disinfection of the area

The Quarantine Zone must be disinfected regularly:

a) In presence of animals:

- Disinfection will be done by fumigating machine three times a week
- Liming of the area will be carried out on monthly basis
- Brooming of the area and sheds will be done regularly on day to day basis.

b) In absence of animals:

- Disinfection will be done by fumigating machine two times in a month
- Liming of the area will be carried out on monthly basis
- Brooming of the area and sheds will be done regularly on day to day basis.

**Self-check-2****Written Test**

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

1. What are facilities for cleaning and disinfection? (5pts)
2. What should be provide in the site depending upon the disease status of the animals? (3pts)
3. When you disinfect the quarantine site? (5pts)

Note: Satisfactory rating - 7 points Unsatisfactory - below 7 points
You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____
Rating: _____

Name: _____

Date: _____

Short Answer Questions



Information Sheet- 3	Isolating and taking measure on suspected and sick livestock, plant stocks and other items
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When effectively managed/measured these components meet the principle biosecurity objective of preventing or minimizing cross-contamination of body fluids (feces, urine, saliva, respiratory secretions, etc.) between animals, animals to feed and animals to equipment.

3.1. Isolation

This is Preventing contact between animals within a controlled environment. The most important step in disease control is to minimize commingling and movement of cattle.

This includes all new purchases as well as commingling between established groups of cattle. Even in operations that have high cattle turnover, such as feedlots, keeping feeding groups from mixing is an important biosecurity measure. Isolate feedlot hospital cattle and return them to their home pen as soon as possible. Long acting therapies have improved our ability to minimize movement of infectious organisms

3.1.1. Removing infected and potentially infected animals

Susceptible species on infected farms or in designated infected areas are immediately slaughtered on site and their carcasses disposed of safely, usually by burial or burning. It is often combined with cleaning and disinfection procedures for the infected premises. Because of the rapid spread of epidemic diseases, all susceptible animals are slaughtered, whether obviously infected or not. For some infectious disease control program, such as for brucellosis and tuberculosis, it is possible only to slaughter animals that have been tested positive, but this is not appropriate for rapidly contagious epidemic diseases.



A component of an eradication policy may also be selective reduction of susceptible wild and/or feral animal populations in infected areas, but before embarking on such a program a careful evaluation should be made.

When managing animals that are in quarantine and isolation day-to-day

- Make all farm staff fully aware of recommended separation procedures
- Best practice is for separate staff to take responsibility for tending animals in quarantine or isolation, using separate Personal Protective Equipment
- Where it is not possible to use separate staff:
 - Use separate Personal Protective Equipment
 - Tend to these animals last, after healthy animals
- Always disinfect or change Personal Protective Equipment after the tending routine is complete
- Inspect animals in quarantine regularly and look closely for signs of disease
- If you identify signs of disease contact your vet immediately regarding diagnosis, treatment and future management
- Inspect animals in isolation regularly, monitor closely and report progress to your vet
- Take care when handling and disposing of contaminated bedding, waste and feed

Veterinary advice is required on specific aspects of quarantine and isolation

- The length of quarantine required – this must cover incubation periods of most acute infectious diseases, so may be 6 weeks or longer, or the time for test results to be received
- Import permits for imported animals – check with Animal and Plant Health Agency
- Release of animals from quarantine – formal notices may be required



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 the specific aspect of veterinary advice on quarantine and isolation?
(5pts)
2. What will be take a measure susceptible species on infected farms or in designated infected areas? (5pts)

Note: Satisfactory rating - 5 points Unsatisfactory - below 5 points
You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____
Rating: _____

Name: _____

Date: _____

Short Answer Questions



Information Sheet- 4	Recording information about breach or problems
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Records of the health of newly imported simians should be kept and the National Veterinary Service should be consulted if clinical signs of disease are seen, or if any animal is found dead. Complete medical records should be maintained and available for all animals during the quarantine period. Animals that die during quarantine should have a necropsy performed under the supervision of a veterinarian and representative tissues submitted for histo-pathologic examination. Individual animal health records will be maintained to document test results and all other relevant health information (i.e. vaccines, flock health maintenance, experimental interventions).

The risk of transmission of the disease to humans places a high priority on authorities to protect public health. Effective surveillance and monitoring of illegal or inappropriate use of veterinary drugs requires rapid access to information on animal ownership, their location and drug records. Such information enables regulatory agencies to take measures quickly to protect public health from the risk of exposure to hazardous residues.

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. Complete medical records should be maintained and available for all animals during the quarantine period?(3pts)

A. True

B. False

2. What kind of measure will take for newly imported animals that expose clinical signs of disease and if any animal are found dead? (5pts)

Note: Satisfactory rating - 3 points

Unsatisfactory - below 3 points

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

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions



List of Reference Materials

- <http://u-pc/collect/cdl/archives/HASH9b0f/ce7848f8/d87e3cd1/b6.dir/p56.gif>
<https://www.scotlandshhealthyanimals.scot/disease-avoidance/farmers-livestock-livestock-keepers/how-you-can-avoid-disease/quarantine-and-isolation/>
- <http://www.fao.org/3/X2096E/X2096E06.htm>