



## **Criteria for Establishment of Dairy Cattle Breeder Farm**

**Department of Animal Production & Health**

07.07.2022

## Table of Content

<b>1. Objective</b>		<b>02</b>
<b>2. Location</b>		<b>02</b>
<b>3. Land</b>		<b>03</b>
<b>4. Farm Plan</b>		<b>03</b>
<b>5. Housing</b>		<b>04</b>
<b>6. Operational management</b>		
<b>6.1 Animals and Breeding</b>		<b>04</b>
<b>6.2 Feeding</b>		<b>05</b>
<b>6.3 Reproduction</b>		<b>05</b>
<b>6.4 Healthcare</b>		<b>06</b>
<b>6.5 Culling and replacement</b>		<b>07</b>
<b>6.6 Maintenance</b>		<b>07</b>
<b>7. Record keeping</b>		<b>07</b>
<b>8. Bio Security</b>		<b>09</b>
<b>9. Waste Management</b>		<b>10</b>
<b>10. Committee</b>		<b>11</b>

## **1. Objective:**

1. Registration of suitable cattle farms that fulfilled the guidelines stipulated in this document as cattle breeder farms.
2. To developed the cattle breeder farms to achieve breeding and Reproduction standers.
3. To make available certified breeding materials to sell other the farms.

Followings are considered as important parameters and factors to be considered when establishing a dairy cattle breeder farm in Sri Lanka.

## **2. Location**

- i. Land should be suitable for Breeder farm.
- ii. Have to obtain the approval of Environment Authority for establishment of a cattle farm.
- iii. Have to obtain Local government approval (The Public Health) for establishment of a cattle farm.
- iv. The location should have access resources such as clean water, access roads, electricity...etc.
- v. Farm should be registered in relevant Veterinary Office.

### **3. Land**

- i.** Adequate water supply should be available throughout the year to the land.
- ii.** Should have enough land for cultivation of pasture and fodder.
- iii.** Should be suitable for building construction.
- iv.** Should have an access road for vehicles.
- v.** Should not be a reserved land for any other government projects for development.
- vi.** Should be legally available for use for farm purpose.

### **4. Farm Plan**

- i.** The farm plan should be approved by the veterinary surgeon in the region and he/she should certify that the plan meets all the basic needs such as space, ventilation, drainage, slope, heights, feeders, water etc. ensuring the animal's welfare needs as well.(Based on DAPH guide lines)

## 5. Housing

- i. The Farm should have all the types of farm houses which are essential for a breeder farm
  - Cow sheds
  - Calf sheds
  - Carving pen
  - Sick pens
  - Milking parlor
  - Milk collection unit
  - Feed storage/mixing place
  - Restraining crush
  - Farm office
  - Drugs and chemical storage facility
- ii. The buildings should be constructed with materials suitable for long term operation

## 6. Operational management

### 6.1 Animals and breeding

Pedigree details should be available.

Animals should be selected by a veterinary surgeon for breeding purpose

- **Breed** – Should be a breed recommended in National breeding policy for the area of the farm located and the management system.
- **Composition** – Herd composition should be planned in order to be sustainable. It should be in accordance with the standards.
- **Number of breederble females** - 50 animals should be minimum.

- **Condition of animals** – Standard body condition of the animals should be maintained at all the times. It should be verified by the veterinary surgeon during his/her inspections.

## 6.2 Feeding

- **Ingredients** – The list of ingredients to be included in the ration should be decided based on the availability, nutritive values and price by the veterinary surgeon or qualified animal nutritionist.
- **Ration** – A well balanced ration prepared by a veterinary surgeon or animal nutritionist should be available.
- **Daily feeding** – The ration should be mixed and fed on daily basis. Daily quota should be provided to the animal without any shortage. Records should be available.
- **Quality testing** – Samples should be tested and reports should be available for inspection and necessary changes.
- **Inspection** – A veterinary inspection should be done on regular basis to ensure the animals are properly fed.
- **Water**- Adlib water should be available.

## 6.3 Reproduction

- **Reproduction plan** – Farm should have specific program of crossing and maintain breeds and its crosses.
- **Essential Breeding Index**- Age at 1<sup>st</sup> calving 28 months
- **Annual Replacement rate** – 20 %
- **Should practice** - One calf per year(calving interval should be less than 1 year)
- **Overall death rate** – less than 5%
- **Milking to dry ratio** -80%:20%

- Artificial insemination technique should be used. (Only for repeat breeders and upon veterinary recommendation the problem breeders can be bred using a stud bull).
- If use stud bull for natural service. Have to prevent inbreeding and annually should be screened for venereal diseases by VIC/VRI.
- Artificial Insemination service should be ensure.
- **Semen & storage** – Sufficient quantity of semen and liquid nitrogen should be maintained in the farm If the number of breederble animals are more than 500.
- **Inspection** – Regular inspection of the breeding practices by a veterinary surgeon is essential. Records should be maintained.

#### 6.4 Healthcare

- **Disease prevention plan** –Department vaccination schedule and recommendations should be followed.
- **Daily healthcare** – all the sick animals should be treated in accordance with veterinary recommendations. All the records should be available. There should be trained staff to assist sick animals.
- **Disease investigations** – Regular disease prevalence investigations should be carried out by the VIC of the region as per the recommendations of the DAPH. Outbreak conditions should be informed to the range Veterinary Office.
- **Postmortem** – Postmortem investigation of dead animals is essential by The Veterinary surgeon. The reports should be available.
- **Disposal of carcasses** - A site for burial of dead carcasses should be available and the area should be well maintained. Any dead carcasses should not be kept unattended or decomposed in open environment.
- **For the treatments and prevention methods**- Veterinary Surgeons service in farm should be ensured.

### 6.5 Culling and replacement

- **Culling plan** – culling animals should be done on the set criteria for upgrading the farm. Veterinary surgeon recommendation should be obtained for culling any animal.
- **Selection of animals for replacement** – The service of the veterinary surgeon should be obtained for selecting animals for the replacement stock of the farm for future use. A set criteria for selection should be followed.

### 6.6 Maintenance

- **Shed and surrounding maintenance** – should be clean and tidy
- **Electricity & water supply** – Electricity lines should be properly fixed and functioning. There should not be any risk of electrocution to any animal or human in the farm. Water supply system should be well maintained and leakages and slippery floor should be prevented.
- **Machinery and equipment** – The farm should have all the machinery including milking unit, grass/fodder harvesters, feed processing machine, milk storage units as per the plan. They should be well maintained and repaired.


### 7 Record keeping

- **Manual record keeping** – The record book/History card should be updated by the staff on daily basis. They should be available at any time for inspection.
- **Computer database/software** – It is preferred that the data should be recorded in a computer database/software. Thereby generating reports or analyzing the farm performance should be fast and accurate.
- **Regular updating** – The regular data recording and updating is essential for breeder farms. The every entry of the data should be certified by the staff/owner of the farm in order to be valid.



- **Inspection** – Records should be verified by the veterinary surgeon during the inspection. Veterinary log records should be maintained in the farm.

Farmer should maintain following records to register as a cattle breeder farm

1. Farmer Details (Name, National Identity number, Herd ID, Address, Telephone Number,)
  2. Pedigree records
  3. Breeding records
  4. Health records
  5. Feeding records
- 
- History card

Production register

Animal sold register

Birth register

Income and expenses register

All the records should be available for Department officer inspection

## 8. Bio Security

- **Boundary:** There should be a fence or parapet wall for the demarcation of a farm with a specified entry/exit points.
- **Entrance:** A board with clear instructions regarding entry to the farm should be displayed restricting entering of unauthorized people and vehicles. Maintaining of records for visitors & vehicles at the entrance is essential
- **Parking:** Parking facilities for vehicles should be located outside the farm.
- **Sign board:** Sign boards should be displayed at the relevant place (Ex: Restricted entry /No entry)
- **Washing, changing & disinfecting facilities for visitors & workers** should be provided at the entrance (Boots, Boots covers, Overall, etc.)
- **Workers:** separate workers should be employed for different sections/units for large farms. Facilities should be provided to clean & change when working in different sections/units.
- **Footbath :** footbath with recommended disinfectants should be provided at the entrance of each unit & replacement of disinfectants should be done at least daily
- **Vehicle dip and spray:** Vehicle dip or spray is recommended at the farm entrance (Optional)
- **Quarantine:** all new animals purchased/imported for the breeding farm should undergo specified period of quarantine under veterinary supervision.
- **Disinfection:** Regular disinfection procedure should be available and in practice in the farm prepared & recommended by animal health specialist.

- **Utensils & farm equipment:** Utensils and farm equipment should be available separately for each unit of the farm.

## 9. Waste management

### Solid waste

Facilities should be available to separate different wastes types such as degradable (organic) non degradable (plastic and glass)

Solid waste (dung and sludge from big gas) should not be discarded to low land, wetland, riverbank or at natural reservoir which causes water or land pollute. Solid waste should never expose /mixed with rain/rain water drain.

Dung,feed waste, dead animals, placenta and other excreta are considered as organic solid waste.

### Liquid waste

Untreated Waste water should not be discarded to open land, stream, wet land or water body. There should be enough land available to discard treated waste water. Waste water should never expose /mixed with rain/rain water drain.

**Committee:**

Chairman : Dr.M.B.D.Lakmalie (Head, Animal Breeding Division, Veterinary Research Institute).

Member : Dr. K.G.J.S. Disnaka (Assistant Manager -Veterinary & Regional- NLDB).

Member : Dr.R.A.C.Rabel (Senior Lecture, Faculty of Veterinary Medicine& Animal Science, University of Peradeniya).

Member : Dr.N.W.M.R.B.Bothota (Veterinary Surgeon, Central Province DAPH).

Member : Dr.U.Wejesinhe (Veterinary Surgeon, Human Resource Development Division).

Member : U.D.Ramanayake (Veterinary Surgeon, Animal Breeding Division)