

# Farm Visit Report

By

2<sup>nd</sup> Year Students (Morning)



Submitted After Study Tour as a Lab Work Assignment In Course of  
Fundamentals of Animal Husbandry (407)



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## Executive Summary:

This report is prepared by the students of B.S. 2<sup>nd</sup> year (Morning) after an educational tour at “Sindh Dairy Farm” situated on the Super Highway near Dumba Goth. Mr. Jameel Memon is the owner of the farm. The farm manager was present at the time of the visit to provide detailed information regarding animal species, marketing, housing, production, and health. This tour was organized for the practical study under the course of Animal Husbandry (407). The trip was very informative and it provided fundamental knowledge about farm designing, farm management, and farm animals. The managerial practices were acceptable and the number of animals at the farm were between 7000 to 8000. It was found that the farm never encountered any contagious disease outbreak since the start of farms operation. Regular vaccination is carried out against viral diseases such as FMD and HS disease. The feeding system was very efficient. The farm’s biosecurity was not up to the mark even then, the farm is managed efficiently.

All of the animals had ear tags for identification. Proper sheds were present to protect the animals from seasonal effects. The farm’s infrastructure was well developed because of basic sewage system, feed storage, milk collection unit and open area for animals were present on the farm. A vet also accompanied us during the visit to the farm and he told us about the health standards of the farm. According to him “the farm is free from all sorts of chronic diseases”. Animals are provided medical care immediately if any animal is diagnosed with any disease or if the signs of disease are present. He further told that the reason for disease-free environment was the regular vaccinations of the animals. Animal waste produced by the farm is properly utilized, according to Mr. Abid (son of Jameel Memon) “our farm produces tons of cow dung every month and we utilize that for the biogas production”. We also visited the biogas plant which was under construction. Some of the animals were being kept for meat production while the rest were for the milk production. The cattle breeds present at the farm included Red Sindhi, Cholistani, Sahiwal, Nukra and many different crosses of foreign cattle breeds. The milking is carried out after the interval of every 12 hours that is 12 am and 12 pm. The average milk production of a cow was 10-20litre per day whereas a buffalo produced 8-9litre per day on average. They told us about different types of feed that can increase milk production. The biggest issue present at the farm was regarding biosecurity, as no proper system was present at the farm, which seems to be a risk for the farm. The farm was operating while complying with most of the standards that we studied in the theory.

## Introduction:

This report is prepared after an educational tour at “Sindh Dairy Farm” situated on the Super Highway near Dumba Goth. The farm is currently owned by Mr. Jameel Memon and is operating from the past 50 years.

Educational trips are exciting trips for the students. They are organized to enhance the educational experience of all students and provide the students with an opportunity to learn outside the classrooms. These trips are usually informative and provide eye-opening experiences to many students, they require proper planning and special considerations. This trip to Sindh Dairy Farm was organized by our course in charge, Dr. Syed Noman Ali. We also met the manager of the farm who told us many important details regarding the management of the farm. We also gained a lot of knowledge related to our course.

The main objective of the visit was to see the practical implementation of the theory that we learned in class and gain practical knowledge about farm planning, farm designing, farm management, and farm animals.

## Summary of Activity:

All of the students gathered in front of the department before 9:20 am. At 9:30 am, all of the students embarked the bus and the journey towards the farm started. It took us almost 1 hour and 30 minutes to reach our destination. The bus was parked outside the farm in a small parking area and then we started to roam inside the premises of the farm in the form of small groups in order to observe the farms infrastructure, management practices, etc. During the visit, the son of the farm owner, manager, veterinary doctor and some caretakers of the farm accompanied us. The employees of the farm were very friendly and they answered most of our questions. Each group was assigned a particular task, so every group observed and questioned the employees according to their tasks. It was a short visit to the farm, so after almost 1 hour we again embarked the bus in order to go back to the university.

## Findings & Observations:

The visit to Sindh Dairy Farm was very interesting because it was one of the biggest farms in Karachi. Following are the findings and the observations during the visit at Sindh Dairy Farm:

### 1. Biosecurity:

Biosecurity is a set of preventive measures, designed to reduce the risk of transmission of infections in crops, livestock and living modified organisms. At Sindh Dairy Farm, there were no proper arrangements of septic tanks at the entrance, in order to avoid any harmful microorganism from entering the premises of the farm. According to the manager and doctor of that farm:

"We usually don't separate the sick animal from others because most of the time it's not a contagious disease".

The quarantine was present for the new animals, where they are kept for a few days in order to screen out any sick animal if present. Therefore it can be said that the biosecurity conditions were not up to the mark as quarantine alone cannot control the spreading of disease because the main vector for microorganisms are transport truck tires as the trucks enter the premises at least twice a day in order to transport the milk to the market.

## 2. Farm Structure:

Farm structure involved the following things:

- **Boundary Wall:**

There was a solid 10 feet high boundary wall all around the farm area in order to protect the farm.

- **Shed:**

Sheds were properly built. The height of the ceiling was less than 9 feet. A single shed contained two rows of mangers and was able to house up to 40 animals at a time.

- **Water Reservoir:**

The farm had 2 main water reservoirs, each can hold 1000's of gallons of water. The reservoirs had plenty of water to fulfill the needs of the farm.

- **Stores:**

A huge shed was being used by the farm which had plenty of space to store up to 1 year supply of wheat straw. Other sheds were also present to store green roughages and other feeds such as seedcakes.

- **Labor Accommodation:**

Around 500 workers were employed by the farm so proper accommodation was provided to them in different parts of the farm so they easily have access to different areas specifically at the milk storage unit and calving shed.

- **Open Area:**

Large open area was present at the farm and most of the animals were freely moving in the open area because milk production of those animals decreased when they were kept in captivity for a longer period, they are only restrained during milking.

- **Manager Office:**

A manager's office was also present from where he controls all of the activities of the farm.

- **Parking:**

A small parking area was also present near the entrance of the farm.

### 3. Management System:

The management system being used on the farm was very effective as everything was being utilized properly. The owner even had plans to utilize cow dung as a fuel for biogas plant.

- **Hygiene and Sanitation:**

Hygiene standards were being implemented as animals were kept clean and the udder was also cleaned before milking. Buffaloes are given shower regularly during the summer season. A basic sewage system was also present in the sheds in order to keep the sheds clean.

- **Labor:**

Labor was experienced and well trained. Good labor is necessary for every farm because they play a vital role in maintaining farms productivity.

- **Feeding:**

Proper feed was given to the animals according to their age and their roles. Dairy animals were being fed on feed that would increase their milk production whereas other animals were being fed a different type of feed which was increasing their weight as they would be sold as sacrificial animal during Eid-ul-Adha.

- **Watering:**

Fresh water was being kept in the reservoirs and the animals were given fresh water in the open area at least twice per day.

- **Animal Health:**

Animal health is taken seriously on the farm as all the animals are vaccinated regularly in order to protect them from various diseases. Pregnant animals are also given special care during the last trimester.



#### 4. Production:

Production of the farm was good and it was producing the following:

- **Milk Production:**

The animals that were present at farm were comprised of the best milking breeds. A single buffalo produced an average of 8-9 Liters of milk per day whereas each cow produced an average of 10-20 Liters of milk per day. The lactation period of cattle and buffalo is 8-9 months but in the last 2 months of lactation period, the amount of milk produced by the animal starts to reduce. Milking is done twice a day after an interval of 12 hours. The animals are fed a proper ratio of different feeds in order to maximize the amount and quality of milk. The farm also produces packaged milk for a private vendor. The main difference of this packaged milk from the local milk available in the market is that this milk is 100% Hormone, Oxytocin and Antibiotics free therefore the demand of this packaged milk is also increasing.

- **Meat Purpose Animals:**

The farm also produces a small number of animals for meat purpose mainly to be sold in the annual cattle market before Eid-ul-Adha. The breeds of cattle that were being kept for meat purposes mainly included cross breeds of Red Sindhi, Cholistani, Nukra, Sahiwal, Bhagnari, Holstein Friesian, Jersey, Belgian Blue, Hereford, English Longhorn and many others which were obtained by AI practices. This population kept for meat purposes mainly comprised of Bulls but some low milk producing cows and buffaloes were also sold to the local butchers.

- **Animal Waste:**

The farm produces tons of cow dung each day. The representatives of the farm told that when the amount of cow dung increases on the farm then it is usually filled in trucks and taken by different people usually for agricultural practices. The son of the farm owner told, "Farm produces tons of cow dung each day. A biogas plant is under construction that will produce enough gas to run a 2 kVA generator which will power a future project of "feed pellet mill" He further told, "This biogas plant will also be beneficial for running different types of machineries on the farm such as boiler etc."



## Animal Housing:

The housing applications observed at the Sindh Dairy Farm are as follows:

- Shed for buffaloes and cows.
- Shed for Calves.
- Sewage System for water drainage.
- Feed Storage
- Isolation box to quarantine animals.
- Open area for animals.
- Milk collection unit.
- Milking parlor/area
- Water tanks for water storage.
- Cattle crush to handle animals.
- Manger for food serving.
- Manager's office.
- Labor's room.

## Animal Feeding:

Animal Feeding is an important part of farm management. A proper diet plan is necessary for proper growth and health of animal. Dairy animal and Meat purpose animal have a different type of diet plans as per requirements. Sindh Dairy Farm buys its feed from different vendors throughout the country such as wheat bran is bought from different areas of Sindh and Punjab during the harvesting season of wheat. Sindh Dairy Farm also produces some green roughages on its agriculture fields for the farm. Sindh Dairy Farm feeds its animals twice a day. A total of 10-12 kg of feed is fed to each animal per day which costs around 200-400 Rupees. The feed ingredients mainly include a mixture of different concentrates, wheat bran, green roughages and some non-conventional feed items. Milk is the main diet of young calves and Sindh dairy farm uses a different strategy to feed it young calves. They don't use any milk replacer instead they feed 4 calves using a single cow and sometimes using a single buffalo.

## Animal Health:

Health of the animal is a very important aspect of farming. Sindh Dairy Farm takes care of the animals very seriously. The farm has hired a vet that stays on the farm 24/7 in order to tackle any health related issues of animals. Medicines are an important part of farm's inventory. Most of the medicines were kept in the manager's office while some annual vaccines are bought few days prior to their usage. Some of the main aspects of animal health are as follows:

## 1. Diseases:

When we asked one of the representatives of the farm about the most common diseases he has seen throughout his career on the farm. He told that like every other farm this farm also encountered health problems throughout its history. The most common disease were indigestion, diarrhea, bloating, mastitis etc. but these are uncommon now on the farm due to better hygiene and other managemental practices. When we asked about the presence or history of any viral or zoonotic disease outbreak on their farm, he completely denied the presence of any viral or zoonotic disease on the farm.

## 2. Vaccinations:

The workers at “Sindh Dairy Farm” told that they vaccinate their animals yearly for diseases such as “Haemorrhagic Septicemia (HS)” and “Foot & Mouth Disease (FMD)” etc, locally known as “Gall Ghoto” and “Mun Khur” respectively. They told that their farm has the policy to not compromise on vaccinations and he further told that health condition of animals is maintained strictly and proper medical attention is given to the sick animal because if a single animal gets sick it will transfer that disease to other animals therefore decreasing the productivity of the farm. They even told that for the past few years their farm had remained safe from any viral disease outbreak due to proper health practices and vaccination of farm animals.

## 3. Control of Venereal and Genetic Diseases:

Venereal and genetic diseases are the silent threats to any farm. The farmers are usually unaware as these can cause multiple complications such as unsuccessful conceptions, miscarriage, multiple types of infections and several genetic disorders. At Sindh Dairy Farm, they prefer A.I methods for breeding of animals. This modern method used for impregnating cattle and buffalo minimizes the chances of spreading of any venereal or genetic disease because the semen is usually imported from other countries where it is tested according to the international standards before shipping, so the chances of transfer of any venereal or genetic disease is very low. Vet on the farm told us that:

**“If one of the bulls is carrying any venereal disease it would transfer that disease to every cow he mates with, so we prefer A.I over natural service because there is a very low risk of transfer of any venereal disease and we can also get our favorite breeds very easily by this method.”**

## 4. Traditional Treatment of Animals:

Traditional treatment is a treatment based on medical aspects of traditional knowledge that developed over generations within various societies before the era of modern medicine. During the visit when we asked one of the authorities that if they use any traditional treatment to cure the disease of animals on the farm, He replied:

**“The farm owner has directed us not to use any traditional treatment because animals are expensive so instead of using risky traditional treatments we use proper medicines”.**

He further told that:

**“If a single animal gets sick due to any invasive disease, we immediately vaccinate all of the animals as a preventive measure in order to keep the morbidity and mortality rate as low as possible.”**

## **5. Emotional Health:**

Emotional health of the animals is also taken very seriously on the farm because a happy animal means better productivity of the farm. Almost 21 hours of the day each animal is free to roam in the open area which ensures better emotional health of the animal. The animals are usually restrained for only up to 3 hours at the milking parlor for milking. One of the caretakers told that:

**“We restrain the animals for a very short interval because if we restrain them for longer periods then the milk production of that animal significantly decreases due to stress from being restrained.”**

## **Animal Breeds:**

The farm had many different breeds of cattle and buffalo, which are as follows:

### **1. Buffalo Breeds:**

The farm had all three of the Pakistani buffalo breeds but most of the buffalo were of kundhi breed. The names of the breed are as follows:

- **Nili Ravi**
- **Kundhi**
- **Azi Kheli**

## 2. Cattle Breeds:

The farm had many of the Pakistani and international breeds. Most of the animals were crossed with the exotics breeds. Names of some of the breeds that were crossed with other local breeds to get better milk production are as follows:

- **Red Sindhi**
- **Sahiwal**
- **Cholistani**
- **Nukra**
- **Dhani**
- **Bhagnari**
- **Holstein Friesian**
- **Jersey**
- **Belgian Blue**
- **Hereford**
- **English Longhorn**

## Animal Restrain:

Animals at Sindh Dairy Farm had good emotional health so they were very calm except for few cows which gave birth in last few days, so restraining techniques are not often used on the farm. They only restrained the animal during milking with the help of a rope. Some of the techniques used by the farm to restrain animals are as follows:

- **Haltering**
- **Fencing**

These restraining techniques are usually necessary during medical treatments and medical examinations.

## Personal Profile of Caretaker:

We visited the farm of “Mr. Jameel Memon” i.e. “Sindh Dairy Farm”. One of the caretakers was accompanying us. The caretaker belonged to Mithi, Tharparkar District of Sindh and he was serving the farm for the past 20 years. According to him, his ancestors also practiced this profession. His family was living in his hometown and he has to live on the farm away from his family in order to earn bread for his family. He told us about different farm divisions, feed schedules, milk production, feed expenses, cattle breeds, general behavior of animals, caretaking of calves, cattle markets, fluctuation of milk prices, seasonal effects on animal and basic medical treatments. He was very wise and a professional man and was also fond of his profession.

Sindh Dairy Farm

Owner name: Mr. Jameel Memon

Experience: 50 years

## Conclusion:

The study tours for those subjects having practical approaches are very important. They let the student understand the practical environment of the subjects. It helps to think out of the theoretical boxes and enable students to make new efficiencies in the practical grounds of the subject. They should be considered as important as the theories are. It definitely broadens the vision and views.

## Recommendations:

Our recommendations are as follows:

- **Biosecurity of the farm should be improved.**
- **Fence height should be at least 5 feet.**
- **Better Sewage system should be integrated in the farm's infrastructure.**
- **Better handling of milk to control bacterial count in milk.**
- **Better hygiene and sanitation standards should be implemented.**