Dairy Shed Design, Construction Plan Information I Dairy Cow Farming

The Basic Requirements of a Dairy Shed

The shed should be simple comfortable and ventilated. It should allow animals to be in a pleasant environment where cows can drink water and eat fodder comfortably for 24 hours. The feeding system and taking care of animals have to be convenient for the farm workers.
A good shed limits the dairy farmers dependence on laborers and increases the profit.

Best Dairy Farm Requirements

The shed should be airy and ventilated properly. Construct the shed based on your environmental conditions. It should receive ample sunlight during the winter and shade during the summer.
So make the shed in an east-west direction. We should keep it clean and hygienic inside and outside of the shed and the shed design should allow to clean it regularly.

You may extend the shed in the future so you have to keep in mind accordingly to choose the location. It has to allow animals to move freely ensure the availability of abundant space in the surrounding areas of the shed for the unrestricted movement of animals.

Selecting Land for the Construction

While selecting the land for the dairy farm make sure that no trees are cut off and that it is away from populated areas. It’s better if you construct the shed at a high position surroundings at a lower height. This is to allow easy cleaning

of the shed freshwater has to be available for cattle.

In the summer season, proper ventilation has to be there. Construct the shed away from the main road. This is to allow dairy animals remain secure from environmental pollution and traffic noise. The electricity connection has to be there no need to construct the expensive dairy shed. You can build a traditional shed with locally available materials. Scientifically, the shed should be simple ventilated and it should provide a comfortable environment for dairy animals.

Types of Dairy Sheds

Manual type where all work is done by laborers semi-mechanized type where some work is done by laborers and the rest by machine mechanized type. While building a shed construct, it can be easily converted from manual to the mechanized or semi-mechanized type of farm

Things to Remember before Building a Shed

Firstly, make sure that building space is available in the east-west direction to ascertain the shed length. Set a four feet wide stall per animal on both sides. If you have 50 large animals then 100 feet long shed has to be there because there will be two compartments of 25 animals facing each other the distance between both compartments will be around 12 to 14 feet.

This area will be used by farm workers for fodder, tractors and for the movement of a trolley or ox cart on both sides of compartments. Keep at least eight to ten feet of the shaded place.

Where each animal can stand easily behind the shaded area leave at least a 25 feet open space so that there is a 10 to 14 feet track between the two compartments. Then 10 feet between each compartment in which animals stand and have their

feed and behind that on both sides 25 feet to provide a comfortable environment for the animals. This is to allow animals to easily lay.
At the same time cleaning the shed will be much easier. Keep the center compartment roof 16 to 18 feet high. This is actually a slightly straight roof where is the roof in the compartment under which animals stand slopes down.

This roof is 15 to 16 feet on one side and 13 to 15 feet on the other side. The sand bunker compartment’s roof is also on a slope and it’s 13 feet on one side and 9 to 11 feet on another side. This shed looks like five roofed sheds 1.5 to 2 feet distance kept in between the central track and the roof of the side compartment. When hot air rises up, takes moisture out with it at the same time, compartments and inclined roof makes the air passage easy.

Shed Hygiene

For better cleanliness the shed floor has to be at least one percent declined towards the drainage system so that a100 feet shed should have a one feet decline. For every 25 cattle, make one large water tank, so that freshwater is always available. Usually bricks and iron bars are used to build a shed. Galvanized iron pipes can be used to construct this kind of shed of bars and sheets are used to make roofs. Wood and bamboo can be used to reduce costs but remember that it is not durable and with this method, germs insects and the growth of ticks may create problems in the future.

Apart from this, a milking area, chaff cutting room, compartments basic medicine storage room, calf cages and silage bunkers for green fodder storage are built at the dairy farm separately. Quarantined shed is built for sick animals.

Diseases

If you buy new cattle keep it separately for some time to

avoid external pathogens coming inside your farm. Vaccination and proper medicines have to be given to those cattle so that you can avoid disease transfer to your healthy cattle. if you feel those cows are healthy then after 15 days you can leave them with other cattle on your farm. You have to install disinfectant liquid or limestone powder tub and wheel sterilization dips at the farm entrance to prevent external disease spreading pathogens, microorganisms and germs. So vehicle tires and people passing through those dips before entering the farm. Make the shed ventilated and cool, install a cooling system farm.

Farm Cleanliness Maintenance

The farm should have a proper cleaning system so that animals' habitat remains clean. The manual storage area should be at a safe distance from the animal shed. This is because it produces dangerous gases like hydrogen sulfide carbon dioxide methane and ammonia which may be inhaled and may also decrease oxygen. In the environment the manual storage area should be within a barbed wire or fence. You can also make biogas and electricity from it biogas slurry can be used as fertilizer for agricultural crops. If that is not possible then the manure can be used on agricultural crops directly or you can convert it into compost or vermicompost. it helps to increase productivity in agriculture.

You can sell manure too because it has great demand in the agricultural market. An appropriate shed is not only a source of comfort for the animals but also relieves them from any pressure so that in a healthy environment the animals provide a higher yield and make your dairy business profitable.