Group One: Dairy Cows

Farm Requirements:

Dairy cows spend a lot of time in the field grazing. In fact, they spend about 6 hours a day eating both the grass in the pasture and the feed provided by the farmer. In order to keep both the dairy herd and the nearby streams and waterways healthy, you need to construct a fence to keep the cows out of the waterways.

The fence must have a perimeter of 130 centimeters.



Because you have fenced the cows out of the stream you need to provide them with a watering trough where they can have access to plenty of fresh water throughout the day. Dairy cows drink 25-50 gallons of water each day!

The watering trough must have a perimeter of 20 centimeters.



Dairy cows are milked at least twice a day, every day. The building where they are milked is called the milking parlor. Most milking parlors are automated, some are even robotic! You will need to construct a milking parlor so that the cows can be milked.

The perimeter of the milking parlor must be 60 centimeters.



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Group Two: Equine (Horses)

Farm Requirements:



Horses love to eat short, juicy grass. They also eat hay (which is dried grass), especially in the winter or in their stable. Some horse owners might also supplement their horse's diet with barley, oats, or other types of feed. In a field, horses might spend most of their day grazing. To keep them from wandering off you need to build a fence around pasture.

The perimeter of the fence must be 100 centimeters



Horses typically have a stable where their grooming equipment might be kept. Horses should be groomed frequently with a comb, brush and hoof pick (which removes dirt, stones, and other objects from the feet). The horse owner might also keep the horse's saddle and blankets in the stable.

The perimeter of the stable must be 60 centimeters.



In addition to being used for storage, most stables have stalls for each horse. A horse might sleep in his stall (although horses generally sleep standing up!) or go there to be protected from bad weather. There are 3 horses on your farm and each needs their own stall in the stable.

Each stall must have a perimeter of 24 centimeters.

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Group Three: Chickens

Farm Requirements:



The majority of chickens raised in Virginia and the nation are raised in climate-controlled barns, called houses, designed to maximize the chicken's health and welfare by providing a balanced diet, clean water, comfortable bedding, and fresh air. On many farms a computer monitors the temperature and air in the chicken house and automatically adjusts to keep the birds comfortable. This information can also be delivered straight to the farmer's phone. Your farm will have two chicken houses on it.

The perimeter of each chicken house must be 80 centimeters.



Chicken houses have automated feeders and water dispensers located throughout them. This provides the chickens with access to nutritionally balanced food and fresh water. Place a feeder as well as a water dispenser in each chicken house.

The perimeter of each feeder must be 12 centimeters and the perimeter of each water dispenser must be 8 centimeters.



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Group Four: Beef Cattle

Farm Requirements:

Beef cattle spend much of their day grazing in pastures. Many beef farmers utilize rotational grazing where cattle are cycled to different pastures, sometimes called paddocks, over time. This practice helps ensure the quality of both the grass and the soil.



Divide your farm into 3 equivalent paddocks. The total outside perimeter of your farm must equal 110 centimeters.

You will need to provide a source of clean drinking water for your cattle. In addition to being sure that the water level remains stable, you will also need to ensure that it does not freeze in the winter.



Place a water trough in one of your paddocks. The trough must have a perimeter of 20 centimeters.

Your beef cattle will need a barn or shelter. This will give the cows shelter from the weather as well as a place for routine health procedures.



The perimeter of the shelter should be 46 centimeters.

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