



REPUBLIC OF KENYA



DAIRY HERD IMPROVEMENT FRIESIAN X SAHIWAL CROSSBREED



Introduction

Crossbreeding is mating between animals of different breeds or lines. Crossing takes place after the selection of parents from different breeds or lines. The crossbred offspring is used only for production purposes and is not used for breeding. The intention of crossbreeding is to produce an offspring with the good traits of both parents. Crossbreeding requires the maintenance of the pure breeds within a breeding program.

Friesian characteristics

- Black/red in colour and white short-haired coat
- Average body size of 550-650 kg
- Potential yield of 40-50 litres of milk/day, 3.2% butter fat
- Suitable for zero-grazing production system
- Heavy feeder (90-110 kg fresh forage/day i.e. 3 gunny bags)
- Need high-level management, especially in disease control and feeding
- Susceptible to metabolic diseases e.g. milk fever
- Susceptible to high temperatures
- Low resistance to disease

Sahiwal characteristics

- The colour is solid brown
- Average body size of 350-400 kg
- Average milk yield of 5-10 litres/day, 4.8% butter-fat
- Average lactation yield of 1600 to 2750 litres
- Adapted to the utilization of poor quality pasture and rough terrain
- Hardy, tolerant to diseases
- Docile, suitable for dry land dairy farming
- Difficult breeders, most mating at night

Objectives of crossbreeding Friesian and Sahiwal

A Friesian-Sahiwal crossbreed, also known as the Friesian x Sahiwal cross, has characteristics of both the Friesian and Sahiwal breeds. This crossbreeding is frequently used to capitalise on the strong milk-producing potential of Friesians and the heat tolerance and disease resistance of Sahiwals.



Friesian bull



Sahiwal cow



Friesian x Sahiwal cow cross

Some characteristics associated with Friesian-Sahiwal cross



Friesian-Sahiwal cross breed

- **Milk Production:** The crossbreed typically exhibits higher milk production (15-18 Liters/day) compared to pure Sahiwals. The influence of Friesian genetics contributes to increased milk yield. The milk from Friesian-Sahiwal crosses may have a balance of qualities, combining the higher milk volume associated with Friesians with the rich fat and protein content of Sahiwals.
- **Heat Tolerance:** While the Friesian-Sahiwal cross may not be as heat-tolerant as pure Sahiwals, the Sahiwal impact can improve tolerance to hot and humid areas.
- **Disease Resistance:** The Sahiwal component contributes to disease resistance and overall hardiness, which can help crossbred animals live longer and healthier lives.

- **Conformation:** Crossbred animals can have a combination of physical characteristics from both parent breeds, including body size, coloration, and horn size. The specific appearance varies depending on the degree of crossbreeding.
- **Fertility:** The crossbreed may retain the good reproductive traits of the Sahiwal, exhibiting high fertility and good calving ease. The average age at first calving is 33 months, calving interval of 420 days
- **Adaptability:** Friesian-Sahiwal crosses are generally adaptable to a range of environments, benefiting from the Friesian's productivity and the Sahiwal's resilience.
- **Herd Management:** Crossbred animals may be more manageable in certain situations, as they may exhibit a balance of the docility of Friesians with the hardiness of Sahiwals.
- **Calf Vigor:** The crossbreed may display good calf vigour, with calves being more robust and resilient, inheriting traits from both parent breeds.

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