



Sahiwal Cattle Breeding



Selection of Sahiwal Cattle

In Kenya, the Sahiwal cattle have earned a reputation as a dual-purpose breed for milk and meat production. The Sahiwal is important because of its high growth rate and mature live weight, relatively high milk quantity and quality yield, good fertility and calving ease, mothering and milking ability, tolerance to high temperatures and parasites, ability to utilize poor quality pastures, and ability to cope with feed and water scarcity. These characteristics, together with low care requirements, make the Sahiwal ideal for low-input production systems and semi-arid conditions in Kenya and the rest of Eastern Africa.

Sahiwal breed characteristics

The Kenya Sahiwal is principally a dual-purpose (meat and milk) breed. The breed has distinctive physical characteristics as outlined below;

1. **Coat colour** - Reddish brown to chestnut
2. **Head - *Bull***: Masculine, alert, straight, and long
Cow: Feminine, calm but alert
3. **Face** - Long, straight and alert
4. **Ears** - Long, drooping and developed crest
5. **Shoulders - *Bull***: Neat attachment, free-moving, well-muscled
Cow: Neat free moving, lean but not heavily -muscled
6. **Rump** - Broad and fairly long with moderate slope, front to rear
7. **Heart Girth - *Bull***: Not deep, broad but fairly full
Cow: Not deep, broad but relatively lean with feminine quarters
8. **Tail and tail setting** - Smooth insertion well to the rear, hang perpendicularly down and with a well-developed black switch
9. **Legs and hooves** - Strong legs and feet with darkly pigmented hooves

10. Loin - **Bull:** Prominent

Cow: Smooth not pronounced

11. Hip bones – **Bull:** Narrow and angular

Teats: Large and brown in colour

12. Temperament - Calm and tractable.

13. Body conformation – **Bull:** Deep in front but well-muscled in hind quarters. Good length of the body, well-sprung ribs, good strong legs

Cows: Lean in neck and shoulders, well-developed hind quarters. Slightly drooping rump. Good length of the body, well-sprung ribs, and good strong legs



Sahiwal Bull



Sahiwal Cow

What to select for

Sahiwal breeders keep Sahiwal cattle and improve them to serve a particular purpose in the system. These purposes range from intangible socio-cultural to tangible economic roles. Being a dual-purpose animal raised in ASALs, the traits of interest that are targeted for improvement include but are not limited to:

Breeding Objective	Selection traits	Performance data
Milk Production	test day milk yield, total milk yield per lactation, lactation length	Daily milk yield records, monthly milk yield
Growth	Pre-weaning daily gain, post-weaning daily gain, Mature live weight	Birth weights, weights (One weighing in three months), mature weights, feed records, sward analysis records
Adaptability to water stress, thermo-stress, disease resistance/tolerance	High growth rate, high milk production and high survival ability, body condition,	Milk yield, body weights, body condition scores and mortalities

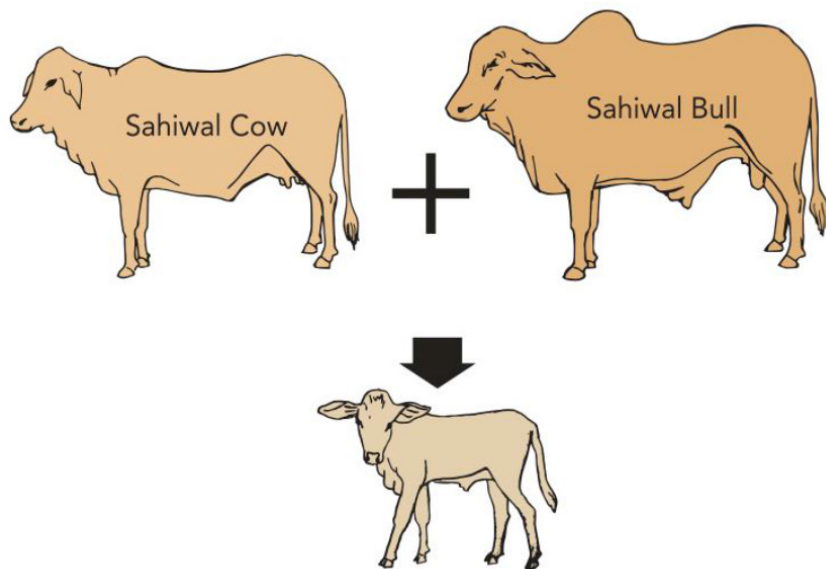
These traits that are targeted by Sahiwal keepers as the ultimate improvement result constitute the breeding objectives for Sahiwal cattle. For these traits to be improved, performance data ought to be collected. If objective traits cannot be measured, indicator traits that are measurable are defined to enable performance recording upon which records. These records are evaluated.

Methods of breed/genetic improvement

1. Selection within breeds or lines (Pure-breeding)

This is common in organized breeding systems and community-based populations. Pure breeding is necessary for maintaining pure Sahiwal

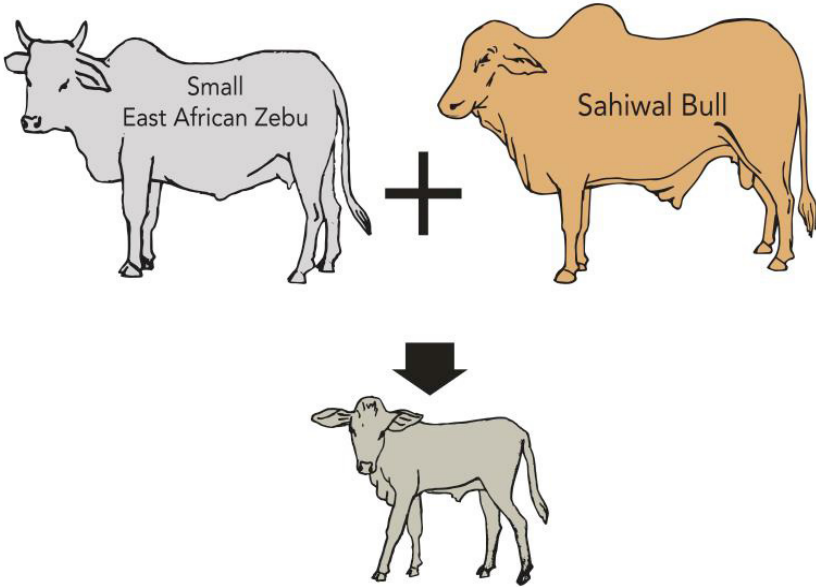
breed lines. Pure breeding must be carefully done to avoid mating using animals with a common lineage as it will result in inbreeding which is undesirable. Pure breeding ensures the conservation of the Sahiwal breed



Mating a bull and a cow belonging to the same breed (Pure breeding)

2. Crossbreeding

This is the most prevalent system of breeding used across Eastern Africa. It is achieved by mating two or more unrelated cattle breeds such as the Sahiwal breed and Maasai zebu. However, it must be well planned to avoid indiscriminate crossbreeding which can lead to loss of genetic diversity among Sahiwal populations. Systematic crossbreeding helps to increase productivity if well implemented. Crossbreeding taps on heterosis (hybrid vigour).



Mating a bull (Sahiwal) and a cow (Small East African Zebu) belonging to the different breeds (Cross breeding)





Kenya Climate Smart
Agriculture Project



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