

INPUTS FOR DAIRY

The input in the dairy enterprise include:

- Dairy herd (animals)
- Dairy structures
- Feeds, fodders & supplements
- Machinery & Equipment
- Acaricides and Drugs

(i) Dairy Herd

The productivity of a herd depends on the quality of the cows and the replacement heifers. These must be selected for high milk production and good fertility based on the following characteristics;

- The cows must portray good to excellent conformation through the parities and lactations
- The production potential of the cows must be well above the computed herd average reproduction
- The cow's reproductive ability should be high, calving once every year with a lactation length within the normal 305 days
- The udder should be tightly attached to the body and be soft to touch with four functional teats placed squarely and symmetrically on the udder. Long pendulous udder is highly heritable and females with this should not be used for breeding. Big udders are difficult in suckling the young and also difficult milkers. Big udders are also predisposed to injury and mastitis infection.
- The cow needs to be officially registered with the Kenya Stud Book (KSB) and milk recording with the Dairy Recording Service of Kenya (DRSK) and have its pedigree known and production and reproduction performance quantified to qualify as a breeding female
- Cows are culled based on physical deformities (e.g. poor body conformation, bad feet, poor udder and teat quality, blindness) should not be selected for breeding.

Desired Dairy herd composition

Cows in milk	45%
Dry cows	9%
Pregnant heifers	8%
Heifers (weaning to first service)	14%

Heifers (birth to weaning)

24%

(ii) Dairy Structures

The housing depends on the farming system where animals under the intensive are confined in a zero grazing unit all the time, semi intensive are partly confined and partly grazed; while in extensive they are left free range.

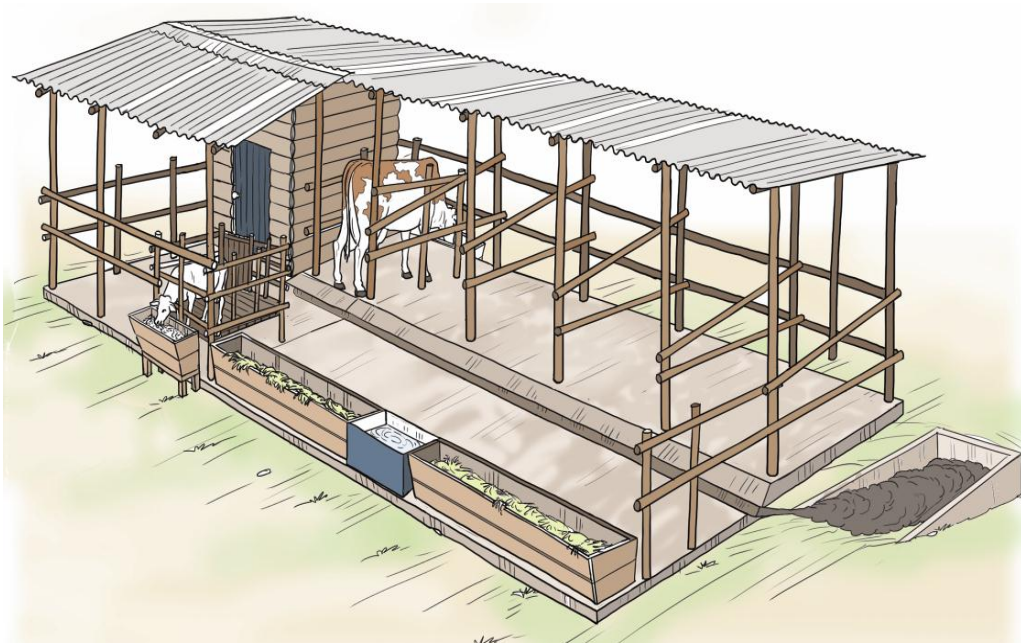


Figure 1: Zero Grazing Unit



A calf pen should be constructed where possible from locally available materials. It should be constructed to:

- Allow approximately 2 m² (1.2 X 1.5m) space per calf
- Be well drained or bedded
- Be well lighted (artificial or natural).
- Be well ventilated
- Strong to stand predator invasion

Figure 2: Movable calf pen (slatted floor)

(iii) Feeds, Fodder and Supplements

There are several categories of feeds for dairy cattle namely; fodder, commercial feeds, home-made rations and salts/vitamin supplements.



Figure 3: Home-made rations



Figure 4: Fodder- Napier Grass

(iv) Machinery and Equipment

For hygienic production and handling of milk the farmer is advised to use approved machinery and equipment. This includes; milk cans, milk testers, cooling tanks and even processing plants. This will also help extend the storage life of milk and enable value addition. Other equipment include chaff cutter, pulverizer, weighing band, dehorning gadgets and Branding bar used for routine management of the dairy herd.



Figure 5: Milking Cans

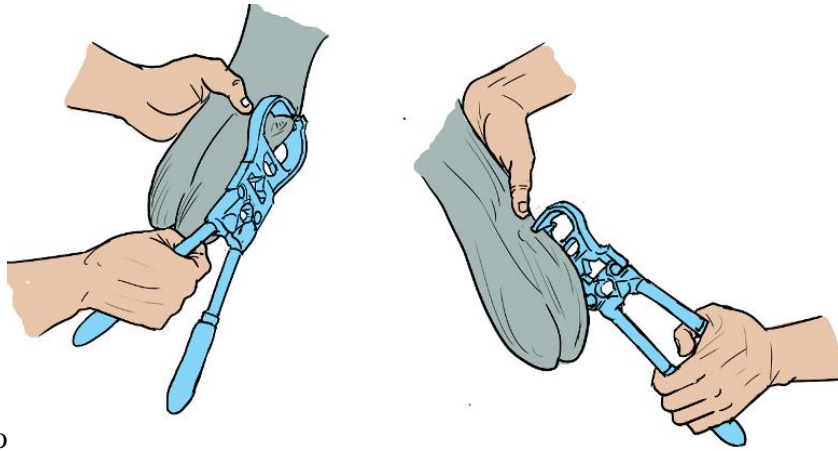


Figure 6: Buddizo



Figure 7: Block making Equipment

(v) Acaricides and Drugs

The common dairy animal diseases in Kenya are Foot and Mouth Disease (FMD), Anthrax, Contagious Bovine Pleuropneumonia (CBPP), Rabies, Lumpy Skin disease, Contagious Caprine Pleuropneumonia (CCPP), East Coast Fever, Rift Valley Fever and Trypanosomiasis. To prevent and cure the diseases, the farmer is advised to use available and effective acaricides and drugs as recommended by the veterinary practitioner in the locality.