

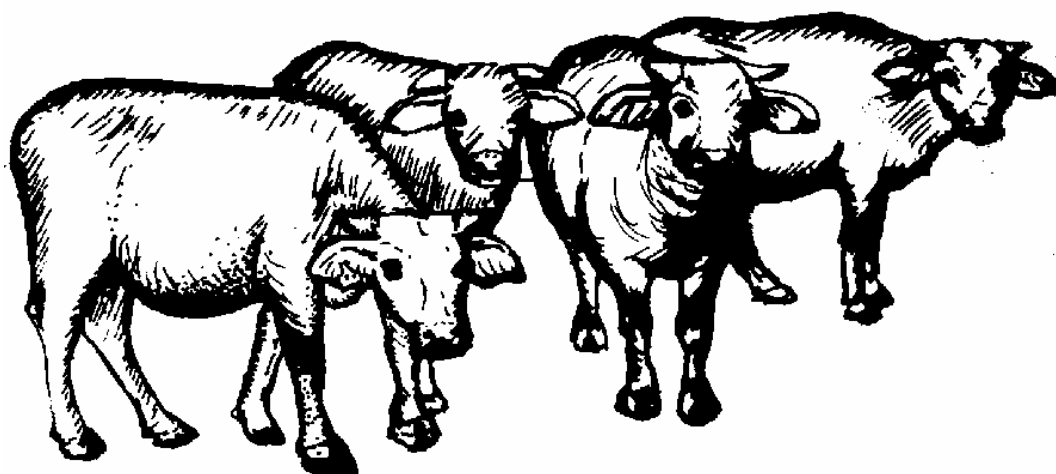
Management of Orphaned or Weaned Buffalo Calves

D. Ffoulkes, Animal Production Officer, Darwin

BACKGROUND

Large numbers of buffalo calves are orphaned as a result of disease control and domestication programs currently being undertaken in the NT. Little attempt has been made in the past to raise these young animals because of high labour and feed costs and their reputation for being difficult to hand rear (high mortality rates). However, while sources of buffalo for domestication are declining rapidly, their value has increased significantly, especially that of potential breeding stock, and this trend is likely to continue in the future. Raising orphaned calves therefore has become a more attractive management option.

Tulloch (1972; 1979) successfully bottle-fed calves that were removed from the dam at birth, and in another case, goat's milk drunk from a cake tin was used to raise a calf from two weeks of age (Padgham-Purich, 1988: pers. com.). However a trial done by Gilham (1986) at Berrimah Research Farm, found that young animals separated from dams after one or more days, could not be encouraged to drink from a bottle or bucket. They did not take to milk substitute in liquid or solid form, but readily accepted solid food or good quality forage. More recent attempts by the Department to raise large numbers of 'untruckable' buffalo calves in a feedlot situation have been very successful.



UNDERSTANDING BUFFALO BEHAVIOUR

The buffalo is a highly social animal with strong instincts. Consequently mother and young relationships are closely bonded and the buffalo calf usually becomes more stressed when separated from the dam than do the calves of cattle. Buffaloes are also relatively intelligent animals and learn quickly from more educated companions. Because of their intelligence and social habits stress can be alleviated by keeping them in groups of five or more animals together with an older domesticated animal.

A consistent feature of young calves up to six months of age is their slow ungainly gait which is often accompanied by dragging of the hind legs and swaying hindquarters. This may be mistaken for chronic ill-thrift with no prospect of recovery and on that basis the animal is destroyed. While in some cases ill-thrift and malnutrition may be implicated, as long as the animal is eating this characteristic will normally disappear as the animal gets older.

Many people do not realise that buffaloes are quite susceptible to heat stress. This is because of their poor ability to sweat. Their skin has far fewer sweat glands than that of cattle. Buffaloes therefore need at least shade and continuous access to cool drinking water. When animals are held in yards in hot weather a wallow or a sprinkler system turned on for an hour during the heat of the day is preferable. The ungainly gait of the calves is particularly noticeable when they are heat stressed.

BASIC MANAGEMENT PRACTICES

- A. Hold in quiet yard with shade, water and feed trough.
- B. Not less than five animals per group together with educated older animal.
- C. Work animals frequently but quietly through the yards.
- D. Treat animals of six months of age or more for internal parasites.
- E. Place salt block in feed trough.

FEEDING STRATEGY

- A. 0-3 months (under 75 kg: one to three temporary pairs of incisors):

Orphaned calves under three months of age can suffer mortality rates of up to 25% unless they can be bottle or bucket fed or fostered by a willing lactating buffalo cow (three to four calves per cow) in addition to receiving solid feed. If labour inputs or foster mothers are not available, the calves should be held with an educated yearling or older animal.

Basal diet: Always feed to appetite good quality hay such as pangola at an expected rate of one to two bales per 10 animals per day. A house paddock of grass-legume mix with plenty of green feed will also provide an adequate basal diet for older calves.

Supplements: Additional concentrated nutrients are also recommended. Any one of the following suggested formulae may be fed.

1. Lucerne chaff/calf pellets - 150 g of each/hd/day
2. Cracked sorghum/cotton seed meal - 150 g of each/hd/day
3. Forage sorghum cubes (Vitacuber) - older calves only at 0.5 kg/kd/day

B. Three to six months (75-125 kg: four pairs of temporary incisors):

Lot feed in a group for at least one month before considering holding them in a paddock of good quality pasture. Continue supplementation in the dry season. Mortality rates up to 10%.

Basal diet: Feed good quality hay to appetite (approx three bales per 10 animals per day).

Supplements: Lucerne chaff/calf pellets or cracked sorghum/cotton seed meal - 250 g of each/hd/day. Forage sorghum cubes (Vitacuber) may be fed to gradually replace the basal diet of hay.

C. Six to 12 months (125 - 175 kg: four pairs of worn temporary incisors):

Lot feed in a group for at least one month before putting them with the domesticated herd. In the yards feed good quality hay or forage sorghum cubes. Supplement as before up to 500 g of each ingredient/hd/day but reduce intake of supplement a few days prior to turning out.

Groups of young buffaloes will generally do well where there is abundant green feed. For example, on floodplain pastures of hymenachne or paragrass, or on saved legume pastures of Cavalcade, Verano, Glenn, and Wynn Cassia (Lemcke, 1988; pers. com.).

Table 1. Comparative age and live weight according to eruption of teeth and horn rings

Eruption of incisors	Approximate age	Live weight (kg)
1 st pr of temporaries	0-7 days	30-45
2 nd pr of temporaries	two weeks	
3 rd pr of temporaries	30 days	50-60
4 th pr of temporaries	4½ months	80-95
Well worn full mouth of temporaries	nine to 10 months	140-165
1 st pr of permanent's	30-36 months	330-365
1 st horn ring	11 months +	150-175

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