

Crossbreeding to Improve Profitability

(Background notes prepared for Monitor Farm Open day at The Thomsen Family farm, Patoka, Hawkes Bay 20 March 2002 prepared by Steve Morris, IVABS, Massey University)

Producers can improve the profitability of their beef production system by:

- Reducing their costs of production
- Increasing the values of store sales
- Increasing carcass returns

The choice of breed or breed cross will influence *both* production costs *and* market returns. A major “cost” is related to the feed consumption of beef cattle. Over half of the feed consumed in breeding and finishing is to “maintain” the cows and generate replacements. Calves born or weaned per 100 cows are an important indicator of feed efficiency. Age at first calving, conception rate, longevity of cows, and replacement rate affect feed requirements.

Good lactational performance will definitely increase calf-weaning weights. Larger breeds usually have higher weaning weights. However larger cows eat more feed for maintenance (e.g. a 50 kg increase in weaning weight will not increase profit if it is achieved by a 50 kg increase in cow mature weight).

The Choice of breed(s) will involve a compromise

Identify the performance characteristics for **breeding** and **finishing** that best suit **the** farming system. Compromises can be **minimised** by using **sires** with **different attributes** from **dams** (eg terminal sire over crossbred cow, rotational crossbreeding)

The major advantage of crossbreeding is that “compromises” can be minimised (e.g. dams chosen to be good mothers, sires chosen for offspring attributes). The problem with crossbreeding is obtaining a source of replacement females. There are five options:

- purchase replacements
- continually generate replacements from straightbreds
- adopt a rotational crossbreeding programme
- develop a composite
- stay with straightbred cattle and use terminal sire on a % of cows

These options involve progressively more “compromise”. Note also it will take time to stabilise age and breed structure, and to arrange multiple mating mobs.

Maximum gains from crossbreeding are often compromised

Be careful of:

Calving difficulty with large sire and small dam breeds

Management requirements of different crosses

Buyer perception at sale yards and meat companies

Higher productivity requiring increased feed requirements

High octane crossbreds are not a solution when your straightbred cattle are performing below their ability . Remember you don't get anything for nothing.