

PASTURE DEVELOPMENT TO MEET BEEF PRODUCTION OBJECTIVES
AT "OHIO", GOGANGO, QUEENSLAND

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INTRODUCTION

I breed and fatten cattle on "Ohio", 10 000 ha of land approximately 60 km west of Rockhampton. The country is undulating and varies from wide creek flats to steep hills. The soils are shallow and stoney and are of low fertility. They are a red brown clay loam and a white solodic soil derived from two rock types, the Rookwood volcanics and a series of marine sediments. The Rookwood volcanics are timbered with bloodwood (Eucalyptus spp.) and broad leafed iron bark (E. melanophloia) on the hills and ridges, and with moreton bay ash (E. tessellaris) and poplar box (E. populnea) on the creek flats. The marine sediments are timbered with narrow leafed iron bark (E. crebra) and rosewood (Acacia rhodoxylon) on the hills and gum top box (E. moluccana) poplar box and blue gum (E. tereticornis) on the creek flats. There was an area of 2 400 ha of soft wood-brigalow scrub.

The native grasses are black spear grass (Heteropogon contortus), forest mitchell (Bothriochloa ewartiana), kangaroo grass (Themeda australis), forest blue grass (Bothriochloa bladhii) with couch grass (Cynodon dactylon) along the creek beds. The developed soft wood scrubs are sown to buffel grass (Cenchrus ciliaris) and green panic (Panicum maximum var. trichoglume).

The country is fenced and watered and has had approximately 6 000 ha of forest country ring barked. The 2 400 ha of brigalow and soft wood scrub has been pulled and grassed. The average rainfall is 700 mm/year and we have winter frosts.

We run a herd of easy care, tropically adapted cattle which has a high calving rate and which makes good weight gains when nutrition is adequate. It is a low cost enterprise which has survived the vagaries of the market and the weather for the last 25 years.

"Ohio" has no agricultural potential. The income from the property has always been derived from cattle. It is probably typical of the land that will be used for cattle raising in Central Queensland in the future, not only for breeding, but also for fattening.

IMPROVING PASTURE PRODUCTIVITY

We are looking now at developing areas of the forest country to improved pasture and at maximising our production from the native pasture. We are doing this for a number of reasons:

1. We need to increase the size of the herd as increasing costs and an unpredictable market are forcing beef producers to run larger herds in order to remain viable. We can do this by buying more land or by increasing the carrying capacity of land we already own. Grazing land in Central Queensland now costs \$800-1 000/beast area or \$350/ha for developed scrub country suitable for grazing only. If the land has agricultural

potential it can cost even more and even cattle fattening becomes uneconomic. The high cost of land provides an incentive to further develop the land we already own.

2. We have to ensure our turn off can meet the specifications of the most profitable market, in our case the Japanese chiller trade. At present this market requires a 300 kg carcass at a maximum of four years of age. Generally we can do this by running our steers and bullocks on buffel grass and green panic but indications are that this age may be reduced to three years and we would be hard pressed to meet this at the moment. We need fattening pastures that will take a 200 kg weaner and turn off a 550 kg bullock 30 months later. We cannot afford a period of weight loss.

3. The breeder herd runs on native pasture and we need to protect the breeders in times of drought. Central Queensland rainfall is unreliable but controlled mating and early weaning give good protection to the breeders in all but the worst droughts. However we need to be able to wean early, down to three months or even younger, and we need good improved pastures to do this.

4. Young lactating cows with their first calf at foot need a high level of nutrition if they are to go back into calf. By running these young cows on improved pasture we have lifted conception rates from 35% to 75%.

We have made several attempts to establish improved pasture but the development of the brigalow (Acacia harpophylla) soft wood scrubs to buffel grass and green panic has been the only success. Siratro (Macroptilium atropurpureum) was tried when the scrubs were first developed and grew well for three years but now after 12 years there is little left.

Other unsuccessful attempts at the establishment of improved pasture have included sowing Townsville stylo (Stylosanthes humilis) with superphosphate into native pasture and Buffel grass and siratro into cultivated creek flats.

We are now trying wide row leucaena (Leucaena leucocephala). We have 200 ha ready for planting in November 1985 and have planted 35 ha in November 1984. The leucaena planted in 1984 was heavily frosted during winter 1985 and it was very difficult to find seedlings but we are hopeful leucaena will prove successful in less frost prone areas.

We need an economic improved pasture for our forest country. As more of the arable land in Central Queensland comes under cultivation this is the land that will be available for cattle breeding and fattening. What I require now is:

1. More information on how to manage and how to maximise the production from my native pasture. How much should I clear? Should I burn? When should I burn? What is the optimum stocking rate?

2. A low cost improved pasture to marginally lift the productivity of my breeder herd. With the genotypes we have today, and with the current management techniques I am reasonably satisfied with the performance of my breeders. However we do need to give first calf cows some preferential treatment if they are to give high conception rates and we need some assistance for lactating and heavily pregnant cows in a dry spring.

This should be a low cost pasture as I do not need a big lift here and I have to stay with it during periods of low prices.

3. An improved pasture for steers and bullocks that will produce a 550 kg bullock at three years of age. At the moment this is my most urgent need and I would be prepared to consider a high cost pasture for this.

For me to invest in an improved pasture the following conditions need to be satisfied:

1. I must have a specific need - e.g. I need to improve the weight gain of my steers and bullocks.

2. I must have the required finance available, either through surplus earnings or loans.

3. I must get a reasonable economic return on the investment. This will vary from producer to producer and from property to property. It will depend on the current state of development of the property, the amount of improved pasture already available, the price of cattle and the cost of the inputs.

4. The technology should be well established.

5. The risks involved in the development must be acceptable. This includes the risk involved in getting the pasture established due to weather conditions, weed growth etc., and also includes the risk of achieving a reasonable economic return when beef prices are fluctuating. A large area of pasture with a high establishment cost and a high maintenance cost has little appeal.

To sum up I am very interested in establishing improved pasture to lift my total herd numbers and to ensure that my turn off is suitable for the Japanese chiller trade. To do so I must have the necessary cash available, the development should be feasible, the risks associated with it must be acceptable, and I must make a profit.