

LACK OF ADOPTION OF RESEARCH RESULTS IN THE DRY TROPICS

B.R. FRANK*

Several practices developed by research, but not adopted by graziers' include pasture improvement; calf weaning based on age and seasonal condition, controlled mating, selection on performance records, the segregation of heifers and vibrio vaccination. Although the research staff of both the CSIRO Davies-Laboratory and DPI at Swans Lagoon have made extensive studies on the use of improved pastures based on Townsville stylo, only 0.7% of the Dalrymple Shire included this legume, most of which had spread naturally (Michell 1970).

Practices which have been readily adopted are nitrogen supplements, botulism vaccine and Bos indicus infusion. Some research workers are despondent about the lack of adoption of their findings. A survey of graziers in the Dalrymple Shire produced information supporting the model of Crouch (1972), which proposes that innovations follow a logical sequential order.

A significant development was the adoption of Bos indicus type cattle, which first appeared at the Townsville Show in 1953. By the mid 1960's a significant proportion of the herds contained this exotic infusion. Early weaning was introduced in 1958, and encouraged subdivisional fencing. The advent of the U.S. boner market encouraged an increase in watering points which made it possible to graze the native pastures more intensively.

Graziers have attempted to overcome the poor quality of their dry season pastures by supplementing stock. Cottonseed cake and meat meal were used for a short period in the early 1960's, but were replaced by urea which is now in wide spread use. These practices, together with favourable seasons and prices, brought stock numbers and property development to a peak in 1974. Some graziers found that grass became a limiting factor to further herd increases.

The slump in beef markets has since checked development. Given favourable markets and an incentive to increase production, graziers are likely to adopt those practices relevant to their needs. Pasture improvement will only be adopted by graziers who have fully utilized their native pastures. The associated increase in subdivision will enable the adoption of cattle management practices which are currently limited by the lack of suitable fencing and labour. Where they have not fully utilized pastures, graziers will need to perceive the role of improved pastures in the context of practices with which they are familiar, such as a supplement.

REFERENCES

- CROUCH, BRUCE R. (1972). Sociologia Ruralis, 12: 431
MICHELL, T.E., and WOOD, P.W. (1970). Quarters Review of Agricultural Economics, 23: 146

* Queensland Department of Primary Industries.