

SUMMARY OF CLOSING SESSION

It was impossible for the conference delegates to place priority ratings on any particular aspects of research or extension within the tropical and sub-tropical dairying region. Decisions on research or extension priorities would depend on the requirements of the individual regions. It was agreed that dairying is likely to remain an important industry in tropical regions and research is essential to improve production.

The important problem areas within each topic, as defined by conference delegates, are summarized below.

Plant factors

The most important general requirement is to develop "basic" pastures for the various environments which can be established in a reliable manner and managed for high production. Within this broad aim it was considered that the following more specific aims were of importance.

- The need to measure the quality of tropical species and mixtures in terms of milk yield (and milk composition) as early as possible in the plant selection programme.
- The elucidation of the functional climate/plant/soil relationships as a means of increasing understanding of the climatic limitation.
- Improvement in the persistence, yield, and seasonal production pattern of tropical and temperate species (with greater emphasis on tropical legumes) by (a) plant selection, (b) plant breeding, or (c) better management techniques.
- Pasture mixture synthesis, including studies of the factors influencing persistence and production of temperate and tropical species in both tropical and tropical/temperate mixtures.
- A better understanding through research, of the effects of simple grazing management upon pasture quality.
- The lack of adoption by farmers of existing technology for increasing whole farm feed supplies and failure to increase stocking rates accordingly.

Animal factors

The important animal research fields were considered to be in supplementary feeding, pasture utilization, and to a lesser extent animal breeding, and can be defined as follows:—

- A need for much more information on the interrelationships which exist between pasture quality, pasture quantity, body condition of cows at calving and stage of lactation on response to supplementary feeding.
- Investigation of the influence of stocking rates and supplement rates in grazing experiments. It was agreed that stocking rate was important in determining feed conversion to saleable product whilst management of pastures may be of significance for species stability and in times of feed shortage.
- The breeding and selection of dairy animals for high milk production and tick resistance within the tropical environment.
- More knowledge for accurately assessing the production response through the application of supplementary feeding with particular emphasis on pre-partum and the early post-partum periods.

Dairy farming systems

There is an urgent need for biological and economic data on the range of alternative farm systems available. This is needed to provide immediate recommendations for farm use and to indicate possible avenues for future research.

A joint effort by research workers, advisory officers and producers is required to develop more effective techniques for planning, implementing and evaluating farm systems.

General comments

There is at present inadequate communication between officers of the various research organisations investigating dairying in tropical areas of Australia. There is a need for more exchange through visits by research officers and through reports and written communication generally.

Negative results should be published for the information of both research and extension officers.