

BEEF-N-OMICS - A BEEF HERD MANAGEMENT PROGRAM

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The Beef-N-Omics Computer Program is primarily designed as an educational aid to be used in a workshop situation to evaluate beef herd management strategies. Beef industry advisory officers and students are using the program to compare feed use patterns and profitability resulting from different management and breeding strategies in a beef herd. Beef-N-Omics is also used in consultations with individual producers as an aid to decision-making in their beef herds.

Information describing monthly pasture and fodder crop production, supplementary feed used, and variable costs are required as well as details of herd productivity and management. Input include number of cows, weaning percentage, breed and mature weight of cows, number of bulls used, culling age of cows and bulls, heifer joining and female replacement policy, months of calving, weight and age at weaning, age, weight and prices received for sale stock, costs of bulls and replacement females and death rates.

The program also accommodates steer trading operations and makes allowances for feed resources consumed by sheep flocks on the property. In the program the total area available for grazing on the property can consist of up to five different pasture types and two fodder crops. The feed produced each month from these pasture types and fodder crops is entered in units of "livestock months" (LSM), defined as the amount of feed necessary to maintain a 50kg wether for one month. Beef-N-Omics uses this information to generate a livestock inventory, a feed budget and a gross margin budget.

The livestock inventory gives a detailed breakdown of the numbers of pregnant, lactating, empty and dry cows present each month, as well as monthly tallies for replacement heifers, sale stock of various ages, trading cattle and sheep. It also shows the age structure of the breeding herd and the proportion of cows in each age group.

The feed budget gives details of the monthly feed requirements of each category of stock. It produces a summary showing the feed available each month, the monthly total feed requirement, and whether there is a surplus or deficit of feed in any month. A graph showing total monthly feed availability and feed requirements for the breeding herd, trading stock, and the sheep flocks is also produced.

The gross margin budget includes a total gross margin for breeding and trading stock, as well as a gross margin per cow, per \$100 capital and per hectare.

Beef-N-Omics is a user-friendly, menu driven program, which has been progressively refined in response to producer needs, identified at over 30 **Beef-N-Omics** workshops held throughout New South Wales during 1986 to 1988. The current version is highly flexible and will handle most of the management options in use by New South Wales beef producers.

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