

Heritabilities for the nine traits were 0.38 for Head, Neck and Shoulders; 0.57 for Body Capacity; 0.39 for Top Line and Rump; 0.45 for Legs; 0.51 for Feet; 0.44 for Fore Udder; 0.59 for Rear Udder; 0.57 for Teat Shape; 0.49 for Teat Position; 0.76 for Beef Shape. Standard errors of these heritabilities were about 0.14.

Genetic and Phenotypic Correlations between the nine traits were calculated. Standard errors of the Genetic Correlations ranged from 0.15 to 0.20. Most of these correlations were positive but some were not significantly different from zero. Beef Shape and Body Capacity had a genetic correlation of 0.41.

Genetic Correlations between Beef Shape and Body Capacity, Rear Udder and Teat Position were : 0.41, — 0.12, — 0.14 respectively. Methods of sire assessment for conformation are discussed in the light of these results; the BLUP approach, absorbing « herd year » effects is preferred.

BREEDING FOR MILK AND BEEF IN CATTLE-DESIGNING THE OVERALL STRATEGY

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A three-stage index selection programme of dual purpose bulls was studied in order to assess the significance of the selection stages and the genetic gain to be expected. In accordance with previous studies the results showed that more than 90 per cent of the economic gain comes from the milk traits. In addition the study showed that over 10 per cent of the gain is due to the increased feed conversion efficiency, mainly in milk production. The study also indicated that direct selection for feed efficiency in milk production would give appreciably higher gain even if it were done on the basis of only 5 dams/bull.

BREEDING FOR MEAT AND MILK. 2. EXPERIENCES OF INDIVIDUAL, HERD MATING PLANS

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In 1978 in Finland individual herd mating plans were drawn up for 4 180 herds including 6 3780 cows or heifers. This activity is carried out under the national milk-meat programme (M.M.P.) which defines the strategy and objectives of the scheme. The most positive-results of the milk meat programme have so far been :

- a more rational use of AI bulls;
- improvement of the young sire sampling routine;
- increased farmer interest and participation in AI breeding work.

The relatively small portion of the national herd which is milk-recorded (35 per cent) and the small average herd size are the main obstacles in the implementation of the scheme. The supply and quality of beef bulls in AI will need constant attention in future to ensure satisfactory results from the crossing of dairy cows with beef bulls.

A COMPUTER MATING SERVICE ESTABLISHED BY A CATTLE HERDBOOK SOCIETY

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In 1978 a computer mating service was started by the *Netherlands Cattle Herdbook Society* (N.R.S.). Because the A.I. Cooperatives are relatively small it is logical that the programme was started by N.R.S. Three sources of information on the cows are used : 1. the milkrecording and pedigree data, 2. the management traits given by the breeder and 3. the type traits evaluated by the N.R.S. classifier. A computerized printout showing each cow and her evaluation plus her four best bull prospects are being sent to the breeder twice a year.