

Interactions of such small magnitude between genotype and nutritional regimes could not have real consequences for practical breeding decisions. Because genetic differences in milk production are more easily measured on diets higher in energy concentration than all forage diets, the potential reduction in genetic gain for milk production when selecting on all forage diets could be greater than errors in selection caused by interactions, particularly if the interactions could be minimized by rescaling the data.

FEED INTAKE AND MILK YIELD IN MONOZYGOUS CATTLE-TWINS

H. O. GRAVERT

Institute for Milk Production Federal Dairy Research center, Kiel, W. Germany

In 23 pairs of monozygous cattle twins the relations between feed intake, milk yield and milk constituents were examined. Between milk protein content during 7th to 12th week of lactation and energy intake per kg F.C.M. there was a correlation of $r = 0.41$. Presumably the protein content can be used as indicator for feed intake for selection purpose.

FEED INTAKE AND FEED EFFICIENCY IN DOUBLE MUSCLE AND CONVENTIONAL CATTLE

R. HANSET, A. STASSE, C. MICHAUX

Faulté de Médecine Vétérinaire (U.Lg.), Bruxelles

The feed intake has been recorded between 215 and 370 days of age on 118 bulls of the *Belgian Blue and White* breed, 64 of the conventional or dual-purpose type and 54 of the double-muscled type, reared and fattened on a high energy diet (2.8 Mcal ME per kg DM of a concentrate fed *ad libitum*).

The average feed consumptions, expressed in kg DM, adjusted for the metabolic weight were: 6 712 (conventional) and 6 442 (double-muscled). They are significantly different ($P < 2$ per cent). The average feed efficiencies, expressed in kg DM per kg weight gain and adjusted for the metabolic weight, were: 5 571 (conventional) and 5 143 (double muscled) and are significantly different ($P < 2$ per cent).

The difference between the conventional and the double-muscled regarding their $\Delta P/\Delta L$ ratio (daily protein deposition on daily lipid deposition) seems to be of the order of 40 per cent. A difference of this magnitude accounts for a difference in feed efficiency similar to that observed, that is, of about 0.4 kg per DM per kg weight gain.

PERFORMANCE TESTING OF BULLS FOR BODY COMPOSITION IN DUAL PURPOSE CATTLE BREEDS

I. HANSON and B. LINDHÉ

*Dept of Animal Breeding and Genetics Swedish University of Agricultural Sciences,
S 70507 Uppsala, Sweden*

42 AI-bulls of the *Swedish Red and White* breed have been slaughtered at an average age of 28.6 months when they had produced 30 000 doses of semen. The body composition varied to a large extent. If the values were corrected to the same carcass weight 444 kg, the leanest bull had in total 122 kg less fatty tissue deposited than the fattest one. Expressed in energy units the leanest had only 54 per cent as much energy as the fattest. The difference in total value of retail cuts amounted to more than 1 000 Sw Cr. or about 20 per cent in favour of the leanest one. The correlation between estimated breeding value for growth rate and body composition turned out to be close to zero. Further studies will reveal if the body composition of the AI-bulls is worth while to consider in the selection of dual purpose bulls.