ANIMAL BREEDING AND PHYSIOLOGY
IMPROVING LIVESTOCK PRODUCTION IN NIGERIA THROUGH BREEDING

L. O. Ngere
Department of Animal Science,
University of Ibadan

Evidence is presented to emphasise that genetic improvement programmes should include consideration of the environment in which the animals genotypes will be expressed. It is suggested that the different vegetation belts in Nigeria offer differing opportunities for livestock production and may require different breeding methods if it is intended to produce livestock in each zone. A summary is presented of what is currently available on the productivity of our local breeds of livestock: cattle, sheep and goats, pigs and poultry. Suggestions were then put forth on how genetic principles might be applied to increase productivity.

REPEATABILITY OF MILK YIELD IN WHITE FULANI COWS

Stella Okoyomo and Almut Detmers
Department of Animal Science
University of Ibadan

Selection for milk yield should be practiced in the White Fulani herd at the University of Ibadan. There are low and high producers in any herd, and an attempt should be made to determine as early as possible what the production of a cow is most likely to be in later lactations. It is important to know whether a cow which starts with a low milk yield will become a good or better produce or whether she will remain poor.

Repeatability values for 31 milking cows estimated for paired lactations were \( R = 0.62 \) between the first and second record, \( 0.57 \) between the second and third and \( 0.51 \) between the first and third. Repeatability estimates for consecutive lactations were even higher ranging from \( R = 0.77 \) to \( 0.88 \) for any three consecutive periods. The high values suggest that early milk yield can be used as a predictor for future performance. At least after completion of the second lactation—taking into consideration that a heifer may have a short lactation—poor milkers should be culled from the herd.

OBSERVATIONS ON THE PERFORMANCE AND CARCASS CHARACTERISTICS OF PROGENY FROM BUNAJI DAMS AND CHAROLAIS \( \frac{3}{4} \) FRIESEN AND BUNAJI SIRES

A. O. Johnson

An evaluation was made of the performance, some liveweight and carcass measures of calves and a sample of steers produced by Bunaji dams and sired by bulls of charolais, \( \frac{3}{8} \) - Friesian crossbred and Bunaji breeds. The steers were scored on carcass grade on the basis of muscling around high priced areas of carcass, and overall fat cover on the carcass. The Charolais half cross calves were heaviest, the \( \frac{3}{8} \) - Friesian crossbred calves were intermediate, while the Bunaji calves were lowest in birth weight and weaning weight. The Charolais half cross calves gained fastest, followed by the \( \frac{3}{8} \) - Friesian Cross calves, and the Bunaji calves in preweaning growth rate, while the \( \frac{3}{8} \) - Friesian gained fastest, followed by the Charolais and the Bunaji calves in the 112-day and
the first ejaculates and reduced the variance between them and the second ejaculates in all seminal characteristics. However, higher degrees of sexual stimulation (T4) caused the superiority of the first ejaculates to the second ejaculates in seminal characteristics. It was concluded from this study that high quality semen, for natural or artificial breeding can be obtained when animals are properly stimulated before ejaculation. It can also be concluded that the more sexual stimulation allowed before ejaculation the better will be the quality of the first ejaculate compared with that of the second ejaculate.