

## Evaluation of genetic relationship between milk yield and weaning weight in beef cattle in the subtropics.

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**Research Institute:** ARC, Limpopo Department of Agriculture, USDA-ARS

**Research focus area:** Livestock production with global competitiveness



### **Aims of the project**

- **To ascertain the value of maternal breeding value for weaning weight as an indicator for milk yield in beef cattle raised under sub-tropical conditions**

### **Executive summary**

Milk production in beef cattle is undoubtedly one of the most economically important traits. This trait is difficult to measure under conventional beef production setting and maternal breeding value for weaning weight is used routinely as an indicator for milk production. The use of maternal breeding values to select for milk production is an appropriate practice provided a meaningful genetic relationship exists between the two traits. Strong genetic correlation has been confirmed by research conducted mainly in the United States and Australia. Since genetic parameters are population specific, it is important that similar research is conducted in South Africa using local breeds raised under prevailing production conditions. The objective of this research was to estimate the genetic correlation between milk yield and maternal genetic effect for weaning using data collected on Nguni cattle. Results indicate that a strong genetic correlation exists between milk yield and maternal genetic effect for weaning weight in Nguni cattle. Thus, selection for milk yield using maternal breeding values for

weaning weight is an appropriate practice and should lead to genetic improvement. Milk production ability of the Nguni and Bonsmara cattle was also evaluated and the results from this research should be useful for accurate economic evaluation of beef production system that uses either Nguni or Bonsmara cattle as a dam line.

#### List of outputs

- Scientific article

A. Maiwashe, N.B. Nengovhela, K.A. Nephawe, J. Sebei, T. Netshilema, H.D. Mashaba, L. Nesengani & D. Norris. (2013) Estimates of lactation curve parameters for Bonsmara and Nguni cattle using the weigh-suckle-weigh technique. South African Journal of Animal Science 2013, 43 (Issue 5, Supplement 1). Peer-reviewed paper: Proc. 45th Congress of the South African Society for Animal Science

#### Photos

