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Calea București nr.1, 077015 Balotești, Ilfov, ROMANIA

Tel/Fax: (+40 21) 222. 44.10; Tel. (+40 21) 266. 29.61; 266. 12.28; 266. 29.59

e-mail: secretariat@ibna.ro; www.ibna.ro

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Prediction of lean meat proportion of lamb carcasses

V. A. P. Cadavez

Mountain Research Centre (CIMO), ESA – Instituto Politécnico de Bragança, Campus de Santa Apolónia, Apartado 1172, 5301-855 Bragança, Portugal

The objectives of this study were to identify a reduced pertinent set of variables from an original data set of 18 carcass measurements in order to avoid redundancy and collinearity problems or to simplify data analysis and the development of the linear regression models to predict lean meat yield of lamb carcasses. Forty-six (46) male lambs, 26 of Churro Galego Bragançano Portuguese local breed and 20 of Suffolk c breed were used. Lambs were slaughtered and carcasses weighed approximately 30 min after in order to obtain hot carcass weight (HCW). After cooling at 4 °C for 24-h a set of seventeen carcass and tissues measurements were recorded. The data interrelationships were analysed following the common factor analysis procedure. HCW was lowly correlated with leg length ($r = 0.17$) and moderately correlated with measurements that characterize carcass lengths and perimeters ($r = -0.39$ to 0.56). Four common factors (factor I = HCW; factor II = breast bone tissue thickness; factor III = subcutaneous fat thickness; and factor IV = carcass conformation) were retained, account for 81.9% of the variation in the eighteen original variables. This study shows that common factors analysis can be used to condense the information given by large sets of variables, by selecting a reduced number of variables, which avoids collinearity problems and simplifies the development of carcass composition estimation models.

Key words: Lambs, Carcass, Tissue, Measurements, Common Factors

Effect of Monensin on some of the metabolic hormones and ketone bodies in transition dairy cows

Mahmoud Changizi Mohammadi

Department of Animal Science, Islamic Azad University, Khorasgan Branch, Isfahan , Iran

A study involving 40 Holstein cows from one dairy farms near Shiraz, Iran, was conducted to measure the effect of monensin 3 wk precalving on metabolic hormones and ketone bodies in dairy cows immediately postcalving. At 3 wk before expected calving, 20 cows each were allocated to a control (no monensin) and a treatment group 20 cows receiving 300 mg/cow per day of monensin in the a.m. concentrate feeding. Cows were blood sampled once per week postcalving, at the same time of day and the same day at 1, 2 and 3 of the week after calving. Serum was evaluated for IGF-1, Insulin, β -hydroxybutyrate (BHBA) and glucose. Monensin treated cows had no significantly on BHBA and significantly increased concentrations of serum IGF-1, Insulin and glucose in the week postcalving. Monensin treatment administered precalving significantly improved indicators of energy balance in both the immediate precalving and postcalving periods. The findings indicate better energy metabolism in monensin-treated cows as they approach calving. Improvement of energy balance before calving is important for the prevention of energy associated metabolic diseases, such as retained placenta, clinical ketosis, and displaced abomasum, which might occur immediately postcalving.