Development of a rapid and simple approach for kid carcass evaluation by video image analysis

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The objective of this work is the development of a simple and cost-effective video image analysis (VIA) system to evaluate kid carcass in small slaughter units. To achieve this objective a trial was conducted with 42 kid carcasses (6.6±2.6 kg) and models to predict carcass composition from VIA were established. While the carcasses were hanging in the gambrel an image of the dorsal view of each carcass was obtained with a digital camera (Sony, DCR-TRV460). For imaging, carcasses were placed in front of a non-glare black surface and illuminated with standard lighting. The camera was placed perpendicular to the carcass long axis. A total of 44 geometric measurements (linear and area) were obtained after carcass image analysis with the ImageJ 1.39j software. The carcasses were entirely dissected into muscle, subcutaneous fat, intermuscular fat and bone. A stepwise regression analyses (SAS Cary, NC) was performed to predicted carcass composition from carcass weight (CW) and carcass measurements. For all carcass composition traits the best fit was obtained with CW and 3 or more carcass measurement (R^2 range 0.77 to 0.99, P<0.01). The results show that the approach reported in this study offers potential for predicting carcass kid composition using VIA. Further research is needed to improve this technique for establish kid value-based marketing programs.

Yellow grease as an alternative energy source for nursing Awassi ewes

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Thirty Awassi ewes (average BW = 52.0 ± 8.4 Kg; average age = 5 ± 2 yrs) nursing single lambs and their lambs were individually-housed to study the possibility of using yellow grease (restaurant fat) as an energy source by partially replacing barley. Ewes and their lambs were randomly assigned to one of three dietary treatments (10 ewes with their lambs per treatment): no added fat (Control), 3% added fat as yellow grease (YG), or as soybean oil (SO) by partially replacing barley in the control diet. All diets were formulated to be isonitrogenous, isocaloric, and to meet all nutrient requirements for nursing ewes. Body weight change for ewes was not affected (P = 0.66) by dietary treatments. Additionally, DMI (averaged 2.8 kg/d), milk yield (averaged 797 g/d), efficiency of milk production, milk composition, and milk composition yields were not affected (P > 0.20) by dietary treatments. For lambs, final BW (averaged 19.7 kg) and average daily gain (averaged 255 g/d) were not affected (P = 0.97) by dietary treatments. However, the cost of daily DMI and milk yield were least (P < 0.01) for YG and similar (P > 0.50) for the control and SO diets. Under conditions similar to our study, it is economically feasible to partially (10%) replace barley with restaurant fat without adversely affecting the performance of nursing ewes or their suckling lambs.