

## RUMEN DEGRADATION CHARACTERISTICS OF GLUCOSE-TREATED CANOLA MEAL AND CANOLA SEED

Bekir Hakan Koksall<sup>1</sup>, Pinar Sacakli<sup>2</sup>, Sakir Dogan Tuncer<sup>2</sup>, Zehra Selcuk<sup>3</sup>, Bugra Genc<sup>3</sup>

<sup>1</sup>*Adnan Menderes University, Faculty of Veterinary Medicine,*

*Department of Animal Nutrition and Nutritional Diseases*

*09016, Isikli, Aydin, Turkey; +90(256) 2470700/278; +90(256) 2170720; e-mail bhakankoksal@gmail.com*

<sup>2</sup>*Ankara University, Faculty of Veterinary Medicine, Department of Animal Nutrition and Nutritional Diseases*

*06110, Diskapi, Ankara, Turkey*

<sup>3</sup>*Ondokuz Mayıs University, Faculty of Veterinary Medicine,*

*Department of Animal Nutrition and Nutritional Diseases, 55139, Kurupelit, Samsun, Turkey*

**Summary.** The study was conducted to determine the effects of glucose treatment of canola meal (CM) and canola seed (CS) on rumen degradability characteristics of dry matter (DM), organic matter (OM) and crude protein (CP) in four ruminally cannulated mature (2 years old) Merino rams. Canola meal and canola seed were treated first with water then heat, treated first with water then heat plus 2% glucose and treated first with water then heat plus 3% glucose. Crude protein degradability value of CM was reduced ( $p<0.001$ ) by 3% glucose treatment at all rumen incubation times. Effective DM and OM degradabilities of CM were decreased ( $p<0.001$ ) by 2 and 3% glucose treatments. Effective crude protein degradability of CM treated with 3% glucose was lower ( $p<0.001$ ) than untreated CM, CM treated with water+heat and 2% glucose. While effective DM ( $p<0.05$ ) and OM ( $p<0.001$ ) degradabilities were reduced only in CS treated with 3% glucose, this effect was not determined for effective CP degradability of CS in any treatment. In conclusion, there was an effect in reducing of effective CP degradability of CM treated with 3% glucose although glucose treatment was ineffective on reducing of effective CP degradability value of CS.

**Keywords:** glucose treatment, canola meal, canola seed, rumen degradability.