



University of Kentucky
UKnowledge

International Grassland Congress Proceedings

XXI International Grassland Congress / VIII
International Rangeland Congress

Carcass Characteristics of Sheep Fed High Moisture Corn Silage with or without Whole Sunflower or Urea Finished in Feedlot

C. C. Jobim
State University of Maringa, Brazil

F. A. F. Macedo
State University of Maringa, Brazil

A. F. Branco
State University of Maringa, Brazil

L. Lombardy

Follow this and additional works at: <https://uknowledge.uky.edu/igc>



Part of the [Plant Sciences Commons](#), and the [Soil Science Commons](#)

This document is available at <https://uknowledge.uky.edu/igc/21/15-2/11>

The XXI International Grassland Congress / VIII International Rangeland Congress took place in Hohhot, China from June 29 through July 5, 2008.

Proceedings edited by Organizing Committee of 2008 IGC/IRC Conference

Published by Guangdong People's Publishing House

This Event is brought to you for free and open access by the Plant and Soil Sciences at UKnowledge. It has been accepted for inclusion in International Grassland Congress Proceedings by an authorized administrator of UKnowledge. For more information, please contact UKnowledge@lsv.uky.edu.

Carcass characteristics of sheep fed high moisture corn silage with or without whole sunflower or urea finished in feedlot

C.C. Jobim¹, F.A.F. Macedo¹, A.F. Branco¹ and L. Lombardy

Department of Animal Science - State University of Maringá, Av. Colombo, 5790. Maringá-Pr (ccjobim@uem.br; fafmacedo@uem.br; afbranco@uem.br)

Key words: sheep, loin eye area, cut yields

Introduction High moisture corn silage (HMCS) shows advantage in terms of nutrition because of an increased feed efficiency. However, high moisture corn silage may have an improvement for energy and protein values. Jobim et al. (2002) verified an increase in quality of high moisture corn silage by inclusion of whole soybean. This study was carried out to evaluate effects of concentrates in addition to high moisture corn silage alone or with whole sunflower or urea in diets for sheep on weight gain and carcass yield.

Materials and methods The experiment was conducted at State University of Maringá, Parana-Brazil. It was evaluated the performance of male Hampshire sheep fed corn silage as roughage and concentrate based on high moisture corn silages. The treatments evaluated were: 1) HMCS; 2) HMCS added of 20% of whole sunflower (HMCSSF) and 3) HMCS added of 1% urea (HMCSU). It was used a completely randomized design with 8 repetitions. After slaughter, carcasses were weighted to obtain hot carcass weight (HCW) and kept in a refrigerating chamber under 4°C for 24 hours to obtain cold carcass weight (CCW). Carcasses were cut transversally between 12nd and 13rd ribs to obtain the transversal section of *Longissimus dorsi*, where was determined loin eye area (LEA, cm²). Results were analyzed using ANOVA (SAS, 2003).

Results There were no effects of diets on daily weight gain and carcass characteristics. The HCW obtained shows a satisfactory result as they are in the range of preference by Brazilian consumers, and prove the potential of high moisture corn silage to formulate the concentrate. LEA was 11.89 cm² on average which agrees with values normally obtained for sheep slaughtered with 31 kg of average live weight.

Table 1 Average for initial live weight (ILW), final live weight (FLW), daily gain (DG), hot carcass weight (HCW), cold carcass weight (CCW), weight loss by refrigerating (WLR), and true yield (TY).

Items	HMCS	HMCSSF	HMCSU	Average	P	VC (%)
ILW (kg)	22.71	23.22	23.00	22.98	0.09	10.22
FLW (kg)	31.43	30.85	30.88	31.05	0.60	3.85
DG (kg/dia)	0.17	0.15	0.15	0.16	0.32	19.51
HCW (kg)	13.55	13.18	13.43	13.39	0.27	7.57
CCW (kg)	12.95	12.54	12.92	12.80	0.44	7.61
WLR (%)	4.39	4.87	3.81	4.36	0.51	48.07
TY (%)	50.51	50.51	50.49	50.51	0.30	5.69
LEA (cm ²)	12.07	11.66	11.95	11.89	0.10	4.32

HMCS=high moisture corn silage; HMCSSF=high moisture corn silage+whole sunflower; HMCSU=high moisture corn silage+1% urea; P=P values, VC=variation coefficient

Conclusion Inclusion of 20% whole sunflower or 1% urea in high moisture corn silage to formulate finishing sheep diets did not improve live weight gain and carcass characteristics.

References

- JOBIM, C.C., BARRIM, G.M., REIS, W., GONÇALVES, G.D. Composição química da silagem de grãos úmido de milho com adição de grãos de soja. In: 39 REUNIÃO ANUAL DA SOCIEDADE BRASILEIRA DE ZOOTECNIA, 2002, Recife... *Anais da 39 Reunião Anual da Sociedade Brasileira de Zootecnia*, v. 1, n. 1, p. 1-3, 2002.
- SAS Institute. Statistics analysis systems. Version 8.02, Cary, 2003.