

Third National Congress of Recycling and Reuse of Renewable Organic Resources in Agriculture



Islamic Azad University, Khorasgan Branch (Isfahan) Agricultural Faculty, Waste and Wastewater Research Center 13-15 May 2008

Effect of using liquorice root pulp in the diet of kurdish ram lambs

E. Mirzaei1, H. Jafari2 and S. Varmaghani2

M.Sc of Agricultural and Natural Resources Research Center of Ilam
Member of Scientific Board of Agricultural and Natural Resources Research Center of Ilam

Extract of the Liquorice root is used in medicinal industry. A factory for extracting of this product has been established in Ilam province and Liquorice root meal is obtained by extracting process. In this research chemical composition of licorice root pulp and the suitable levels of it in the diet of fattening lambs were determined. The average crude protein (8.05 %), crude fiber (38 %), gross energy (4394.6 kcal per kg), crude fat (0.7 %), ash (9.4 %), NDF (67.7 %), ADF (46.7 %), ADL (20.4 %), calcium (0.87%) and phosphorus (0.23 %) were determined. In order to determine suitable level of licoriceroot pulp in the diet of fattening lamb, the effects of four diets with levels of 0, 13.5, 20 and 26.5 percent of licorice-root pulp were examined. In this trial, 32 Kurdish male lambs with 30±2 kg were used in a completely randomized design with four treatments and four replications and two observations for a beriod of 90 days. The results showed that average daily gain for lambs fed diets containing 0, 13.5, 20 and 26.5 percent of licorice-root pulp were 212.08, 207.00, 213.33 and 221.17 gr respectively. Average daily intake for the diets were 1615.75, 1551.25, 1580.25 and 1607.90 gr, and 7.92, 8.15, 7.94 and 7.36 respectively, the differences of these cases weren't significant (P>0.05). According to results of this trial, the diets didn't have any negative effect on the productive characteristics of fattened lambs and also price of the diet with high level of licorice-root pulp was lower than the others. Therefore, use of 26.5 percent of licoriceroot pulp (refuse) in the diets of fattening lambs is advisable.

Keywords: Liquorice root pulp, Diet, Fattening lamb

1 Corresponding author

E-mail: Imirzei@Yahoo.com