THE QUALITY INDICES OF THE BIOMASS OF SOME *TRIFOLIUM* SPECIES UNDER THE CONDITIONS OF THE REPUBLIC OF MOLDOVA

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Abstract

We studied the quality indices of the biomass of the local ecotypes of *Trifolium alpestre, Trifolium hibridum, Trifolium pannonicum, Trifolium pretense, Trifolium repens*. It was determined that the nutrient content and energy value of the dry matter of whole plants of the studied Trifolium species were characterized by the following indices: 144.9-206.9 g/kg CP, 25.8-31.7 g/kg EE, 224.4 -312.9 g/kg CF, 352.7-492.9 g/kg NFE, 85.6-125.0 g/kg ash, 11.4-22.9 g/kg Ca, 1.6-2.6 g/kg P, 17.86-18.43 MJ/kg GE, 8.31-9.96 MJ/kg ME and 4.63-5.76 MJ/kg NEl. The quality indices of the prepared hays were: 168.4-196.9 g/kg CP, 15.8-2.51 g/kg EE, 269.0-339.6 g/kg CF, 350.8-424.0 g/kg NFE, 94.2-124.6 g/kg ash, 12.6-22.6 g/kg Ca, 1.6-2.8g/kg P and 7.80-8.58 MJ/kg ME. The green mass substrates from the studied Trifolium species have C/N=14.89-21.10 and the biochemical methane potential varied from 260 to 271 l/kg ODM. The local ecotype of the studied Trifolium species can be used for the restoration of permanent grasslands and degraded lands, as a component of the mix of grasses and legumes for the creation of temporary grasslands. The harvested clover biomass can be used as forages for farm animals or as substrates in biogas generators for biomethane production.

Key words: biochemical composition, biomethane potential, green mass, hay, nutritive value, Trifolium species