THE EVALUATION OF THE QUALITY INDICES OF - AGRICULTURAL RESIDUES- STRAW OF SOME *POACEAE* SPECIES

Mihai GADIBADI[1], Victor ȚÎȚEI[1]

e-mail: vic.titei@gmail.com

Abstract

The objective of this research was to evaluate the quality indices of agricultural residues straws of *Avena nuda, Dactylis glomerata, Lolium perenne, Triticum aestivum ssp. spelta, Zea mays saccharata* collected in the experimental plot of the NBGI Chişinău. It has been found that biochemical composition of the collected dry phytomass was 47-64 g/kg CP, 38-72 g/kg ash, 382-473 g/kg CF, 407-501 g/kg ADF, 692-797 g/kg NDF, 38-64 g/kg ADL, 369-437 g/kg Cel, 254-299 g/kg HC. The forage value of studied straws was 49.9-57.2% DMD, 8.26-9.37 MJ/kg ME, 4.28-5.35 MJ/kg NEl. The substrates from studied straws achieved biochemical biomethane potential 271-309 L/kg organic dry matter and theoretical ethanol yield averaged 476-523 L/t organic dry matter. The net calorific value of studied straws varied from 14.7 to16.4 MJ/kg.

Keywords: agricultural residues, biochemical composition, biomethane potential, calorific value, feed value, straw, theoretical ethanol yield