

MANAGEMENT OF *Nardus stricta* L. AND *Festuca rubra* L. GRASSLANDS IN THE DORNA BASIN

Vasile VÎNTU¹, Costel SAMUIL¹, Constantin Iulian POPOVICI¹,
Cătălina BOUREANU (CIOBANU)¹, Mihai STAVARACHE¹

e-mail: vvintu@uaiasi.ro

Abstract

Permanent grasslands of *Festuca rubra* L. and *Nardus stricta* L. represent an important source of fodder in Dorna Basin. Although they have low productivity and inferior quality, these grasslands are used by grazing or alternative use. Improving soil nutrients regime, through fertilization with manure, causes changes in floristic composition and proportion between species in favor for valuable species, thus, contributing to the increase of production and improvement of quality. Research were conducted in the pedo-climatic conditions of the locality Saru-Dornei, in the period of 2012-2014. The experiment was organized on a field located at an altitude of 940 m, with a terrain slope of 10°, where was studied the effect of fertilization with 20-50 t/ha manure applied annually or every 2 years, on production, biodiversity and sward structure of a *Festuca rubra* L. and *Nardus stricta* L. type grassland. Application of manure resulted in production increases from 87.9 to 120.3% statistically assured. Organic fertilization resulted in a decrease of *Nardus stricta* L. species from 47-65% up to 8-17% in favor of valuable species: *Arrhenatherum elatius*, *Festuca rubra*, *Trisetum flavescens*, *Trifolium pratense* and *Trifolium repens*.

Key words: organic fertilization, productivity, biodiversity