

GRASSLAND PRODUCTIVITY IN THE INFERIOR HYDROGRAPHIC BASIN OF MOTRU RIVER

Teodor MARUȘCA¹, Daniel RĂDUȚOIU², Monica Alexandrina TOD³,
Marcela M. M. DRAGOȘ⁴

Abstract. *The permanent grasslands of the lower basin of Motru river are particularly valuable, expressed in phytodiversity and productivity. The average number of cormophyte species is 117 in the 12 associations with 116 surveys. The most species were found in the associations Festucetum rupicolae (191), Festuco rubrae - Agrostetum capillaris (168) and Festucetum valesiaco-rupicolae (143 species). The participation of forage species in the grassy carpet reaches 66%, directly influencing productivity. The average production of forage green mass (GM) was evaluated at 10.31 t/ha with a pastoral value (PV) of 52.1 which can provide 4390 liters of cow's milk in 160 days grazing season from grass alone. The most valuable are grassland of the association Trifolio repenti - Lolietum perennis in the grassland of this river, which have a production of over 25 t/ha GM and 93 PV index. The most degraded are the grassland in the Caricetum hirtae association with almost 1 t/ha GM and 6 PV index. At the phytosociological alliance (habitat) level, the production of cow's milk was established, which is almost 7700 liters per hectare in Trifolio repenti - Lolietum perennis with a loading of 1.73 LU/ha, association imitated and cultivated with improved varieties on the surfaces throughout western Europe with good humidity.*

Keywords: Motru basin, pastoral value, grass and milk production, grasslands

1. Introduction

In addition to determining and classifying the vegetation units of permanent meadows, it is necessary to know their productivity, without which the optimal load with animals and other technological measures cannot be established [2].

In our literature on the vegetation cover of grasslands, carried out by geobotanists, as a rule phytocenological units were outlined and classified and in very few cases determinations of production and forage quality were carried out [13].

¹PhD Eng. Teodor MARUȘCA, Grassland Research-Development Institute-Brașov, Romania, Full member of the Academy of Romanian Scientists (E-mail: maruscat@yahoo.com).

²Prof. PhD Daniel RĂDUȚOIU, University of Craiova, Dolj County, Romania, (E-mail: radutoiudaniel@yahoo.com).

³PhD Monica Alexandrina TOD, Grassland Research-Development Institute-Brașov, Romania, (E-mail: monica.tod@pajisti-grassland.ro).

⁴PhD Marcela M. M. DRAGOȘ, Grassland Research-Development Institute-Brașov, Romania, (E-mail: marcela.dragos@pajisti-grassland.ro).