

## LONGEVITY OF RESEEDED GRASS SPECIES USED FOR RESTORING THE DEGRADED SUBALPINE MEADOWS

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**Abstract.** *In the summer of 1996, a degraded grassland, invaded by *Nardus stricta* species, located at 1,800 m altitude from subalpine level of Bucegi Mountains, after total herbicide with glyphosate, liming using CaO at 2/3 Ah (in autumn 1995) and paddocking with sheep (5 nights, 1 sheep/m<sup>2</sup>) has been over-seeded or reseeded. The grass seed mixture was composed of *Phleum pratense* 40%; *Festuca pratensis* 25%; *Lolium perenne* 5%, *Lotus corniculatus* 15% and *Trifolium hybridum* 15%. A part of the variants have been fertilized with chemical fertilizers with doses of N 150 K P50 50 kg/ha and other plots have been fertilized with organic fertilizer by paddocking system applied before the reseeded grassland establishment. In 2004 and 2011 an organic fertilizing by cattle paddocking, has been practiced. In addition to the dry matter production has followed the evolution in time of wild grasses sown. The reseeded species that do not reach the maturity remain a much longer period of time than is known in the technical literature, this being of 2-3 times greater in the high mountains than in the lowlands and hills. In the grassy carpet the *Phleum pratense* species survives in large proportion, even after 20 years of sowing.*

**Keywords:** degraded grassland, herbicide, fertilizer, over-seeding, reseeded.

### Introduction

Mountain pastures, used by grazing for many years, are exposed to processes of degradation of floristic composition, if not properly maintained, fertilized and used rationally (Barbulescu, Motca, 1983).

By applying organic (paddocking system) and chemical fertilizers, degraded mountain grasslands, invaded by strict *Nardus stricta* species, can turn into valuable pastures, dominated by *Festuca rubra* and *Agrostis capillaris* (Pușcaru et al., 1956). One of the most effective ways to improve *Nardus stricta* degraded grasslands is by total sward destruction (herbicides, harrowing, milling, plowing, etc.), followed by the establishment of reseeded pastures with high quality and production (Marușca, 1977).

Such research work to improve more effectively the *Nardus stricta* grasslands has been conducted in sub-alpine altitudinal level in the last 20 years (Marușca et al., 2015).

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