

FORAGE MIXTURES WITH ALFALFA CULTIVARS, PERENNIAL GRASSES AND ANETHUM GRAVEOLENS

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Abstract

Fodder crops consisting of several species are a way to obtain very good quality feed. They have been used more and more recently in Europe because, in addition to the superiority of feed production and quality, sowing mixtures of several species can lead to a significant reduction in the need for nitrogen fertilizer, an increase in performance and animal health. In Romania, there are few studies on the use of multi-species feed mixtures to reduce dependence on expensive inputs in order to increase the profitability and quality of feed, in organic agriculture production system. The objective was to compare forage yield, degree of coverage and weed infestation of alfalfa single crop and perennial grasses mixtures, which include 10 synthetic alfalfa cultivars and 5 varieties, grasses (a cultivar of *Dactylis glomerata*, *Festuca arundinacea*, *Phleum pratense*), mixed with herb *Anethum graveolens*. A field experiment was established in 2022 in the experimental field of the Center for Organic Agriculture at NARDI Fundulea. The results showed that mixtures of alfalfa with dill and festuca had a higher yield than alfalfa in pure crop. *Anethum graveolens* seeded with forage mixtures proved the efficacy as a natural repellent of *Hypera variabilis* in the first year of crop. In general, alfalfa-grass mixtures had beside higher feed yields and lower weed and pests infestations than alfalfa monocultures or mixtures of two species.

Key words: alfalfa, grasses, populations, feed mixtures, biomass