



Researches concerning the use of the mixed perennial grasses and legumes in order to obtain high yields of fodder with a low consumption of nitrogen fertilizers

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One of perennial grasses, orchard grass (*Dactylis glomerata*) achieve the highest fodder yields under high doses of nitrogen (N200-250), and in the current economic conditions because of the price of fertilizers and their effect on feed and the environment it is necessary to use simple mixtures of grasses and legumes which will ensure high yields with consumption as low nitrogen fertilizer. Orchard grass (*Dactylis glomerata*) is best associated with alfalfa (*Medicago sativa*). Researches conducted in Suceava during period 2007-2009 revealed the role of perennial legumes in simple mixtures with perennial grasses in order to achieve higher yields. The results show through using of alfalfa mixed with orchard grass dry higher yields are obtained. In the first year we obtained an yield increase of 15% when I added 25% alfalfa and an yield increase on 31% when I added 50% alfalfa. In the second year the increases were on 11% when I added 25% alfalfa, 38% when I added 50% alfalfa and 40% when I added 75% alfalfa. In the third year the yield increases were 33% from the addition of 25% alfalfa and 47% when I added 50% alfalfa. The high doses of nitrogen fertilizers (N75-100) determine the higher forage production but influenced the decrease of the alfalfa proportion in the mixture, which mean a weaker feed from quality point of view. The results from this paper were obtained in frame of Sectorial project Develop of advanced technologies and integrated use of natural resources, increasing inputs efficiency, soil conservation and environmental protection for major field crops", financed by Agricultural and Rural Development Ministry, Agreement nr. 331/08.12.2006.