



Cercetări privind biologia și productivitatea culturii intercalate ovăz-mazăre în condițiile sistemului de agricultură ecologică

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Ecological agriculture seeks to use nature as model for designing agricultural systems. Since nature integrates plants and animals into a heterogeneous landscape, a major principle of ecological agriculture is to create and maintain biodiversity. The agricultural practices can contribute both on obtaining rentable and superior quality yields and on environment conservation through ousting the unfavorable ecological effects, on national and local level. One of the unpolluted agricultural practices would be introduction of intercropping in the ecological agriculture system. The intercropping outlook in the agricultural systems and the local potential for the ecological agriculture take into consideration the possible economic benefits and the future requirements for the agro-food industry.

The paper try to realise a research on the biology and productivity of oat-pea intercropping, in field conditions, for evaluating his adaptability on natural conditions and ecological cultivation. The oat-pea intercroppig experiment begin in spring of 2006, beeing located in Moara Domneasca Experimental Station, on brown-red soil, after block method, with randomised variants, in 4 repetitions. The seeds used for experiments were ecological. The intercropping with oat (*Avena sativa*) and pea (*Pisum sativum*) is forming the spring fodder, which was sown in close rows, in 12.5 cm, at a 3-4 cm depth. The oat had a 200-300 seeds/sm density and of 100 germinable seeds/sm at pea. After the observations, it was determined the following: plants hight; leaf number; inflorescence apparition; productivity elements; humidity and dry matter of the mixture. Thus, oat had a vegetation period of 97 days, period in which he reached 82 cm height. The pannicle appeared on 61 days after emergence and after 75 days begin the seed filling. Pea had a vegetation period of 70 days, reached 55 cm height, with a growing ritm of 0.78 cm/day and formed 14 knots on the main stem. The inflorescence appeared after 30 days from emergence. On 47 days after emergence, could be noticed the pods apparition.