Cercetări privind biologia şi productivitatea culturii intercalate porumb-soia în condiţiile sistemului de agricultură ecologică

POPESCU Elena Mirela, ROMAN Gh.V. - USAMV Bucuresti

Conventional agriculture, especially with her modern technologies, modifies landscapes and hearts ecosystems, inclusive the biodiversity at all levels. Thus, a viable alternative for conventional agriculture would be organic (ecologic) agriculture system that must be regarded like an integrant part of sustainable development strategies. One of the organic agriculture practices would be introducing of intercropping in the agriculture system. An essential condition for intercropping success is the interdependence of different agricultural species in the growing and developing process, determined by their biological peculiarities. The research was oriented towards studying the ecological and biological peculiarities and also of the maize-soybean intercropping productivity in the ecological agriculture system. The experiments were made in the Moara Domneasca Experimental Field, on reddish preluvosoil. The seed used in the experiment was obtained from ecological material. It was sown a simple, early maize hybrid (Zea mays - DK 391), and soybean cultivar (Glycine max – Triumf). Maize was sown at 70 cm between rows and 28,6 cm between plants per row, at a density of 5 plants/m2. Soybean was sown in alternative rows, at a density of 24 plants/m2. As a result of effectuated observations, was determined the moment of emmergence, height of plants, number of leaves/plant and also the productivity elements. Thus, maize had a vegetation period of 134 days, reached 182 cm height and formed 17 leaves/plant in monoculture and intercroped with soybean had the same vegetation period, reached 172 cm height and formed 16 leaves/plant. Soybean from monoculture had a vegetation period of 130 days, reached 80 cm height and formed a number of 16 knots per plants and in intercropping had a vegetation period of 135 days, reached 87.5 cm height and formed 14 knots/plant.