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IMPACT OF BACTERIZATION AND SODDING BY PERENNIAL GRASSES ON DYNAMICS OF MAJOR NUTRIENTS AND ORGANIC MATTER CONTENT IN THE SOIL OF THE VINEYARD

The black fallow is a traditional managing of the soil in the vineyards in the South of Ukraine and in Crimea. However, in this managing system it is necessary to bring large amounts of mineral and organic fertilizers. But, in the conditions of modern industrial crisis, the implementation of these operations is expensive. Maintaining the balance of nutrients in the soil is a very important task. In this regard, it is necessary to apply such technology, which would allow to replenish stocks of nutrients and organic matter without unnecessary costs and not to bring harm to the environment. Such technologies, in particular, include the introduction into the soil of beneficial microorganisms and sodding of rows with perennial grasses.

In the article it was shown results of researches of microbial preparations and sodding by perennial grasses influence on the content of nutrients and organic matter in the soil of the vineyard.

It is established that the introduction microorganisms with useful properties and perennial grasses to the grape agrocenosis contributed to the accumulation of nutrients and organic matter in the soil. The inoculation of the soil caused an increase of major nutrients content in the soil: nitrate nitrogen by 6.8 – 9.1 mg/kg (using Diazofit and the CMP on the background of the herbs mix), available phosphorus – by 8.6 – 16.2 mg/kg (under the action of Fosfoenterin and CMP on the background of the herbs mix), rolling potassium – by 11.7 – 16.4 and 17.1 – 18.7 with using Fosfoenterin and CMP, respectively, on the background of the herb mixture. The positive effect of bacterization on the content of organic matter in the soil rhizosphere was noted under the influence of CMP: by 0.05 – 0.32%.

Key words: microbial preparations, sodding, nutrients, organic matter.