The role of mycorrhiza in agroecological production of fruit plants

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Abstract
In the great majority of natural communities, the plants kingdom depends heavily on soil microorganisms. The most widespread association is mycorrhiza, which is highly specialized interrelation between roots and certain soil fungi. Horticultural practices with high chemical treatments (fertilizers, herbicides and pesticides), sterile potting media and in vitro plant propagation, disturbed previously functional agro- and ecosystems. The mycorrhizal technology has been used during the last years in a number of horticultural crops. Introducing mycorrhizal fungi is essential for soil reclamation because it helps in recovering biological activity, improving properties of soil and mobilizing accumulated minerals. The usual method of introducing mycorrhizal fungi is to use commercially prepared products.

The present contribution concerns two types of mycorrhiza: endo- (AMF) which forms association with most of fruit plants; and ericoid - highly specific for Vaccinium sp. The main aspects of agrotechnical treatment will be discussed (technique of inoculation, fertilization, plant protection against diseases). Effectiveness of mycorrhization will be demonstrated as morphological effect (shape of canopy and root system, length of shoot and leaf area) and physiological response (photosynthetic activity, tolerance to biotic and abiotic stress).

Key words: endo- ericoid mycorrhiza, fertilization, growth, inocula, stress

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