

EM-TECHNOLOGY IN CROP PRODUCTION

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Currently, there is depletion of soil fertility, as evidenced by decrease in productivity of major crops.

EM-technology based on the use of beneficial microorganisms, called effective microorganisms (EM) and presented in Ukraine in the form of bio-fertilizer "Baikal EM-1 U", which produced by "EM Centre Ukraine" in Kharkiv region in Lipty, can restore soil fertility and increase yields of cultivated plants.

This is stable composition which, when applied to the soil shows a high positive activity, expressed in increasing the population of beneficial microorganisms, in the suppression of pathogenic microorganisms, in rapid mobilization of nutrients in easily digestible form for plants, in rapid growth and cultivation of plants and as a result increases productivity of plants. "Baikal EM-1 U" - a symbiotic community of microorganisms, which proved very effective in many branches of agriculture and successfully used in many countries.

The substance "Baikal EM-1 U" is formulated with about 60 strains of microorganisms. They support each other; so long live in the soil. In concentrate microorganisms are dormant and need a culture medium for their activation. The major groups of microorganisms which are part of this substance include: photosynthetic bacteria, lactic bacteria, yeast, actinomycetes.

But all these favorable changes occur only in the presence of organic substances in soil, some of which used by microorganisms for their own power supply. It should be noted that the activity of microorganisms in general, including beneficial microorganisms depends on many factors of the environment: the presence of moisture, the positive temperature, optimum of the reaction (pH), salt concentration, the presence of radionuclides in the soil.

Benefits of applying EM-technology: not harm the environment; doesn't require high economic costs; effectively restores soil fertility due to processing of organic matter, which increases the amount of nutrients readily available to plants substances; restrains proliferation of harmful microorganisms; accelerates fruiting plants by creating friable soil structure, which retains heat better.

At the Department of Biotechnology in The National University of Pharmacy it is carried out research whose purpose is to study the composition and activity of the preparation "Baikal EM-1 Y".