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Ecological farming-how to cultivate healthy plants

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Soil, air and water are the basic components for life on the Earth. For many years, the function of soil has been understood only as a mean for production. Nowadays the soil is considered as an integral part of environment which must be preserved for future generations. This is soil awareness but we cannot be satisfied with present situation as it still needs a lot of work in soil issues promotion in the society. Soil is considered as non-renewable resource according to several soil protection documents, thus soil awareness is becoming stronger. One, very effective way, how to contribute to soil protection in praxis is ecological farming. Soil is subjected to several external factors which can influence its properties. The cause of soil degradation directly lies in the way of soil use, which affects its ecological functions and consequently the stability of the land. Sustainable soil use must keep equilibrium with the other parts of environment and ecological farming is also the way to realize it. At present time, people are more and more interested in healthy food. Also healthy vegetables cultivated without high doses of fertilizers are in high demand. One of the ways how to produce such crop is ecological farming which has specific criteria for soil cultivation. Good example is soil cultivation in spirals where individual fields have circle shape. Such cultivation is based on low soil surface disintegration without turning the soil layers and without heavy machinery and fertilizers. It is realized by a rotating arm fixed in the middle of the field. Soil cultivating tool is mounted on a chain and is guided along the arm. It is possible to fix interchangeable tools that can serve as a spade, rotary tiller and seeder or for drip irrigation. The circular fields are located side by side and one working arm can be easily moved to an adjacent field. In these fields, it is already possible to see the change of soil properties. This is noticeable in the amount of stable soil aggregates proportion in comparison with fields cultivated in traditional way. Due to low soil disturbance also amount of earthworms is higher in circle fields. Improvement in soil structure tends to grow from the fields with one year to the fields with five years of ecological cultivation, thus with years the effects are more and more visible. Ecological farming is soil awareness in praxis and can significantly contribute to soil protection and sustainable use according to A2030 SDG's, especially goal 15 which aims to: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

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