



## **Studying the Environmental Impacts of Conventional and Biological Systems of Fruit Tree Cultivation<sup>#</sup>**

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**Abstract:** Agricultural systems have had as their ultimate objective satisfying the nutritional needs of human society. In countries where conventional systems of agriculture are predominant agricultural activity is presented as an open system in which the manufacturing processes compete against the behaviour of fossil energy in chemical fertilizers and anti-parasites. Although conventional farming has triggered an enormous growth of agricultural production it could also be claimed that it has also had negative consequences on the ecosystem through the introduction of active substances in chemical synthesis, thus damaging the biological complexity of agro-ecosystem as well as the food quality of agricultural products. Ecological consequences stemming from the implementation of conventional systems have cleared the way for the development of agricultural systems with environmental compatibility (eco-compatible) and organic methods of cultivation which preserve the environmental resources and their fertility. This study analyzes the environmental impacts (effects on micro-flora of soil) in two cultivation systems: conventional and biological ones. The study analyzes the biological activity of the soil (micro-flora) and the fertility levels in conventional and biological systems in fruit trees (vineyards and apple) with the purpose of identifying the impact of various modes of cultivation related to the presence and activity of soil micro-flora. The cultivation methods and technologies used are decisive in this activity and consequently on the soil fertility acting as a key aspect in the production of plants. It highlights the advantages of the biological system in terms of high environmental qualities on the farm.

**Key words:** *agricultural system, conventional system, biological system, micro-flora, fertility.*

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