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Impact of Pesticides and Importance of Traditional System in Agriculture

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Editorial

India is an agrarian country, more than 80% population dependent on agriculture. In recent years the cultivated land has been transformed into concrete jungles, due to urbanization and industrialization. Water resources were drastically reduced in many parts of the world and also salt content of water was increased after Tsunami. At present, it is very difficult to feed more than 7 billion populations because of lack of water sources, shrinked cultivable land and insufficient labors. For that many chemical pesticides and fertilizer used to increase the productivity of cultivated crops. The repeated uses of pesticide, fertile land became infertile (pH of soil altered, soil microorganism activity was reduced; it directly affect carbon and nitrogen activity). The agrochemicals affected the natural enemies, earthworm, pollinators and avian population in terrestrial ecosystem; alga, lemna, daphnia and fish population in aquatic ecosystem, which in turn directly alter the ecological pyramid and affect the biological system. Since the chemical pesticides induced the reproduction of insect's pests, the minor pest become major pest and cause potential loss to the crops. For that we have a step back to our traditional agriculture. To follow organic farming, vermicompost, cow dung, goat manure, plant debris used as fertilizer, and organic pesticides from plants, seaweeds, microbes, biological control agents (wasp, endophytic fungus, fungus, *Trichoderma*) and panchakavya. Rotation of cropping system, inter cropping and handpicking of pests are some of the effective ways to control the insect pests without using pesticides pave the way for organic farming.

In general, organic farming practices has having enormous benefits including residue free soil and water, increasing soil fertility, having high nutrition with better tastier food, keeping the food storage for longer period, low input cost, pests and diseases free environment and increasing biodiversity. However, organic farming has having certain constrain, e.g., it is a time consuming processes, need more skills, having high cost for their produce and the cost is not stable as it is fluctuate time to time.