ISBN: 978-93-83083-65-7

Sustainable Agriculture for Making Pollution Free Ecosystem

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Abstract Agricultural pollution refers to biotic and a biotic by-products of farming practices that result in contamination or degradation of the environment and surrounding ecosystems, or cause injury to humans and their economic interests. The pollution may come from a variety of sources, ranging from point source pollution (from a single discharge point) to more diffuse, landscape-level causes, also known as non-point source pollution. Since the 1960s, the high input of agriculture production has resulted in the surplus of nitrogen and phosphorus in farm fields. The nutrient elements from agricultural land have increased the content of nitrogen and phosphorus in surface waters. Pesticides and herbicides are applied to agricultural land to control pests that disrupt crop production. Soil contamination can occur either by normal management practices or by accident, and the resulting chemical residues pose hazards to the environment and ecosystem. When pesticides persist and accumulate in soils, which can alter microbial processes, increase plant uptake of the chemical, and also cause toxicity to soil organisms. Manures and bio solids contain many nutrients consumed by animals and humans in the form of food but they may also contain contaminants, including pharmaceuticals and personal care products (PPCPs).

Bio pesticides are pesticides derived from natural materials (animals, plants, microorganisms, certain minerals).As an alternative to traditional pesticides, bio pesticides can reduce overall agricultural pollution because they are safe to handle, usually do not strongly affect beneficial invertebrates or vertebrates, and have a short residual time. Management practices play a crucial role in the amount and impact of these pollutants. Management techniques range from animal management and housing to the spread of pesticides and fertilizers in global agricultural practices. The challenge is that whether we are using fertilizer or other pollutants, it is useful to know how fast it moves. Therefore, these natural ecosystems must be protected and developed so as to contribute to the pollution free environment.

Keywords: Agricultural pollution, Ecosystem, Manure and Pesticide.