



Traditional and Modern Agriculture - Environmental Impact

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Agriculture is an important means of livelihood as it is the process of producing products such as food, feed, fiber and many other desired products through cultivation and animal husbandry. It is an art to manage the growth of plants and animals for human use.

What is modern agriculture?

Agriculture is such an innovative style and agricultural method in which along with indigenous knowledge, modern knowledge, modern equipment and important agricultural practices like field preparation, field selection, weed control, plant protection, post-harvest management, harvesting etc. Its use is called modern agriculture. In this type of agriculture, there is optimization of resources, which increases the efficiency and productivity of the farmers.

impact of modern agriculture on environment

As we know, modern agriculture has not only increased the affordability of food and biofuels.

It has increased the production of crops but at the same time it has also increased our environmental problems because of the use of hybrid seeds of high yielding variety and abundant irrigation water, fertilizers and pesticides in this agricultural practice. How modern agriculture impacts the environment is discussed below:

Soil erosion

The movement of soil particles from their original place and gathering at another place is called soil erosion or soil erosion. Excessive water supply in modern agriculture leads to the removal of fertile topsoil from the field. Due to which the nutrients of the soil start decreasing and due to the lack of fertility of the soil, the productivity decreases. It also increases global warming as soil carbon is released into the atmosphere due to siltation of water bodies due to excessive water supply and contamination of ground water.

Ground water is one of the important sources for irrigation. In modern agriculture, the use of excessive nitrogen fertilizers increases the level of nitrates in the soil, which contaminates ground water. If nitrate levels exceed 25 mg/L in groundwater, serious diseases such as blue baby syndrome can occur, mostly affecting the health of infants.

Water logging and salinity

Proper management of water drainage is very important for agriculture, but farmers tend to supply excessive water in order to increase productivity, which leads to water-logging, which increases soil salinity and reduces soil productivity.

Nutrition

Eutrophication occurs when a body of water is enriched with artificial or non-artificial substances such as nitrates and phosphates. Due to this enrichment, the biomass in the water becomes excessive, due to which the amount of oxygen in the water decreases.

Excessive use of pesticides

Many pesticides are used in modern agriculture to destroy pests and increase crop production. For example, arsenic, sulphur, lead and mercury were used earlier to kill insects. Then later the insecticide Dichloro Diphenyl Trichloroethane (DDT) was used but it used to destroy the harmful insect as well as the beneficial insect. These pesticides are biodegradable Which are added to the human food chain, which is very harmful to human health. Therefore, in today's era, emphasis is being laid on the use of organic fertilizers for agriculture.

Therefore, for modernity in agriculture, through modern agronomy, hybridization in plants, use of pesticides and technical improvements are being made to increase soil fertility, so that agricultural production can be increased, and at the same time no adverse effects on human health.

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