

# Agriculture

Agriculture is an art, science and industry of managing the growth of plants animals for human use. It includes cultivation of the soil, growing and harvesting crops, breeding and raising livestock, dairying and forestry.

## **Types of agriculture:**

1. Traditional agriculture
2. Modern (or) industrialised agriculture

## **Traditional agriculture:**

Small plot, simple tools, surface water, organic fertilizer and a mixture of crops are enough. They produce enough food to feed their family and to sell it for their income.



### Modern agriculture:

Hybrid seeds of single crop variety, high tech equipments, lot of fertilisers, pesticides and water to produce large amount of single crops.



### Effects of modern agriculture:

#### 1. Problems in using fertilisers:

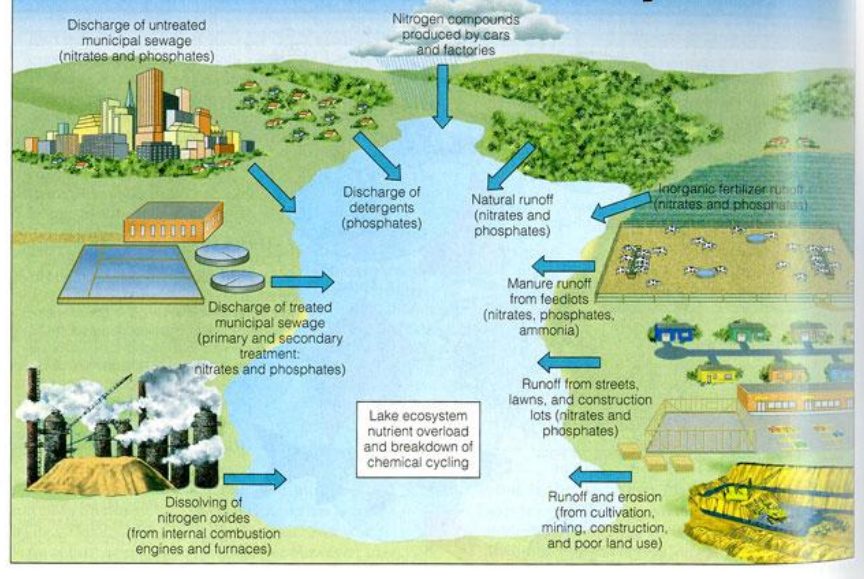
- a. **Excess of fertilisers causes micronutrient imbalance.** (e.g) Punjab and Haryana deficiency of nutrient zinc in the soil affect the productivity of the soil.
- b. **Blue baby syndrome**(nitrate pollution)

Nitrate present in the fertiliser causes blue baby syndrome, when the amount exceeds the limit leads to death.

#### c. **Eutrophication:**

Nitrogen and phosphorus in the crop fields washed out by run off water in the water bodies, which increases the nourishment of the lakes called eutrophication. Hence algal species increases rapidly. Life time of the species is less and they decompose easily and pollute the water which affects the aquatic life.

## Sources of Cultural Eutrophication



### 2. Problems in using pesticides:

First generation pesticide:

Sulphur, arsenic, lead and mercury.

Second generation pesticide:

DDT



**Number of side effects:**

1. Death of non target organism.
2. Producing new pest – super pest

3. Bio magnification – Most of the pesticides are non bio degradable, keep on concentrating in the food chain and it is harmful to human beings.
4. Risk of cancer:
  - a. It directly acts as carcinogen
  - b. It indirectly supports immune system.

**Water logging:**

Land where water stand for most of the year.

**Causes of water logging:**

1. Excessive water supply
2. Heavy rain
3. Poor drainage

**Remedy:**

1. Preventing excessive irrigation
2. Subsurface drainage technology
3. Bio drainage like trees like Eucalyptus

Source : <http://nprcet.org/e%20content/eee/EVS.pdf>