

CHAPTER 10

Soil Pollution

Soil fertility:

Fertility of soil is closely associated with the properties of soil and defined by its capacity to hold water, nutrients and supply them to plants when they need them, independent of direct application of nutrients. Transfer of nutrients from the soil's organic matter to the mineral stage strongly depends on the soil organisms activity and diversity.

When nutrients are bound in biological or organic form. They are neither lost nor bound to soil particles in a way, which makes them unavailable to plants. Therefore, soil fertility can be described in term of soil organic matter content of the soil, with good living conditions for soil organisms and growing conditions for the roots, which are closely linked to soil structure.

It is interesting to know that a major part of the soil microbial biomass is composed of fungi. The mycorrhizae grow in symbiosis with about 90% of all plant roots. The plant roots provide sugar for the growth of mycorrhiza. In reverse, the fungus explores the soil and brings backwater as well nutrients such as phosphate, zinc and copper that are not easily available

to plants. Soil pH, its acidity or alkalinity, is highly relevant to how readily nutrients become available in soil.

Proper soil fertility management is very important for successful crop production and farming. When the soil is fertile in the organic sense, it can produce good crop yields for several years.

