

MANAGEMENT OF SOIL FERTILITY BY THE DEVELOPMENT OF EARTHWORM TECHNIQUES

Soils are the basis of support for most terrestrial life and a source of nutrients for freshwater and marine life. Most agriculture was originally supported by the natural fertility of the soil. Soil is formed over time as the result between the living and non-living environment—climate organisms and the physical surface of the earth. Rocks are broken apart the other environmental factors such as climate plant and animal life helps to form soil. Nitrogen from the atmosphere, formed into nitrates by the action of lightning and atmospheric water vapor, may enter the soil with rainfall other nitrates may be added by the action of such living organisms as soil bacteria and various algae that can convert atmospheric nitrogen into the nitrates required for plant growth. These and other chemicals in the soil eventually become part of the living tissue in plants and animals. The chemicals are returned to the soil as organic wastes and litter that form humus, which is partly decomposed organic material. As humus continuous to decompose, the chemical within it enter the soil for further use of plants and animals.

Because soils are essential for growing of crops, forage and timber it is important that may not be allowed to wash or blow away more rapidly than they can be regenerated that their mineral fertility not be exhausted and then that their physical structure remain suited to the continued production of desired plant materials. The objective of the soil management is to keep soil in place and in a state favourable to its highest possible productive capacity. Everybody knows due to excessive use of pesticides, fertilizers and chemicals our soil is become poisonous which is affecting agriculture, plants and forest and also creating a adverse effect on our lives and spreading various diseases and making our food and vegetables poisonous and effecting our eco-system That is why now a days we are stressing on natural manures to fertile the soil which is eco-friendly and good for our health.

To tackle this problem my idea/suggestion is that there are earthworm / organism in the soil which feed on fertilizer and chemicals. They multiply fast. They get their food from the fertilizers and chemicals found in the soil. From a human perspective, worms are important as soil conditioners (e.g. annelids and aschelminths). Ecologically worm forms an important link in the food chains in virtually all ecosystems of the world. *Mega fauna* constitute the largest soil organisms and includes the Largest earthworms, perhaps the most important creatures that live in the topsoil. Earthworm pass both soil and organic matter through their guts, in the process aerating the soil, breaking up the litter of the organic material on its surface of the subsoil. This is extremely important to the soil fertility and it develops the structure of the soil as a matrix for the plants and other organisms. It has been estimated that earth worms completely turn over the equivalent of all soil on the planet to a depth one inch (2.5 cm) every 10 years. Through soil organisms have become less important in agriculture due to the development of synthetic fertilizers. We can also take the examples of deep oceans where the creature live/ feed in extreme in chemical reactions and feed on the chemicals found there. It is a matter of scientific research and development. The bilogilists, agricultural scientists and the soil experts should identify these soil friendly worms and develop them so that the excessive fertilizer, chemicals in the soil can be reduced by eating it by these worms which saves the fertility of the soil on this earth and will reduce the bad effects of the

fertilizers and chemicals in the soil and will help to maintain the natural quality of the soil and save the soil from the chemical poison and harmful contents.

These are some other tips commonly known to preserve the fertility of the soil:

1. Use of natural manure instead of fertilizer and chemical for agricultural produces.
2. Crop rotation.
- 3 Saving soil from floods, salty water, salinization, and deposition of volcanic ashes etc.
4. Conducting regular awareness programs to the people/ Community/ farmers.
5. Gap farming/cropping and other methods.

Besides these methods I advocate for the earth worm farming in large scale to tackle the fertility problems of soil due to the excessive use of fertilizers and chemicals. This technique is natural and eco-friendly. This technique is useful to reduce the adverse impact of chemical and fertilizers on the soil and it will increase the natural fertility of the soil.

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