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Editorial

Soil the Basic Input for Agriculture, Not just Dirt

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For any agriculture related activity to be successful and economically viable, the first and foremost basic input to be attended on priority and with utmost seriousness, is the soil. It supports the survival of all living organisms from humans, animals, birds to micro-organisms/microbes on the one hand, and shrubs to giant plantation on the other.

Before the selection of kind of fruit trees, crop, variety etc. It is of paramount importance to check the fertility status, viz. availability of nutrients for optimum crop growth, conditions of physico-chemical parameters – soil reaction, structure, texture, bulk density etc.

Since last 5-6 decades, after the start of green revolution, there has been non-judicious use of chemical fertilizers, pesticides and other synthetic/inorganic sources, to support the high yielding and hybrid crop varieties to get maximum yield/output. This uncontrolled and unchecked addition of synthetic products though increased the production manifold but at the same time lead to deterioration of soil health, as no care and attention was paid towards the health of this basic and natural source. This also became the main source of contamination of water bodies etc. Microorganism activity and their No./population, underground and in the atmosphere, esp. the friendly ones got disturbed the worst. This further lead to the deterioration of air quality, and finally the overall environment turned contaminated with toxic products, causing serious threat to the life and biodiversity, even human health has to pay the cost very heavily, resulting in the unbalancing of the natural ecosystem, biodiversity and environment.

The health of humans, microorganisms and other organisms surviving under and above the soil is directly or indirectly affected by soil health. If soil is free from contamination of toxic substances, added through the application of synthetic/inorganic products, viz: pesticides, chemical fertilizers etc. there is no alarming situation for the health of humans, animals, birds and other organisms. Since the birds we eat the animals (mutton and beef) we consume, take the vegetation growing on same unhealthy soil, and drink the very contaminated water at a particular point of time. Besides, the same vegetation is also being consumed by human beings. In addition to this, the quality of vegetation is determined by the quality of Soil-Water-System. Quality of Soil-Water-System is directly correlated with inputs the soil receives.

Therefore, immediate attention needs to be paid towards maintaining the soil health as it has been called the fragile skin of the earth, so as to take care of our health, the health of future generations, vegetation, animals and other organisms and microorganisms under the soil and above it. First and foremost, we need to the check the non-judicious use of products of synthetic/inorganic origin, viz: chemical fertilizers, pesticides etc. At the same time, we can support the maximum crop production by following the strategy of slow and steady replacement of these inorganic inputs by organic manures, viz: FYM, vermi-compost, bio-fertilizers etc. Plus slow-release nutrient supplying chemical fertilizers like neem coated urea etc. By adopting this strategy, we can achieve sustainable maximum crop production on one hand, with simultaneously soil health maintenance for longer crop use.

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