

## **Living soil**

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Directly or indirectly all food comes from soil. If it is not a living system, it can't continuously produce. Just as any other living thing, soil possesses physical, chemical and biological properties. It is also believed that it has physiological systems like digestion, respiration, circulation and excretion. Soil being the basis for all human life, our only hope for a healthy world rests on re-establishing the harmony in the soil. Soil organic matter is an essential component of the soil and in association with the soil fauna, contributes to the soil fertility. Soil is said to have 'life' only when it is holistically looked upon along with its inhabitants, in the form of flora and fauna. Soil faunal density and diversity is also partly due to the C: N availability in

soils. Though the soil is rich in microflora, it remains inactive and inefficient when there is lack of organic carbon. Sources of carbon in the form of cellulose are mainly contributed by plants. Practices like mulching and incorporating crop residues into the soil helps build up the soil carbon. Also, integrating livestock with agriculture enables access to animal waste which can be converted to organic manure. Cow dung and cow urine are the sources which are cheapest and most accessible for farmers to increase the biological activity in their soils. Irrigation is an effective medium in spreading them across the field. The cow dung and urine mixed with a small quantity of jaggery is being extensively used in India under different names like Jeevamirtham, Amirthapani, starter solution, Janjeevani and so on.

This solution is mixed with the irrigation water in a most effective way, by following a novel method in our farm. The irrigation water tank is made up of two parts - one big and one small. The water from the pump set is filled in both the parts. In the big part of the tank, cow dung, cow urine and jaggery are put and stirred well. Once the motor is switched on, plain water from the smaller part of the tank flows out through the outlet into the bigger part. In this part, water fills and spills out through the small hole made in the wall, allowing a uniform mixing of *Amirthapani* with irrigation water. Thus, the multiplication of microbial population is improved in the entire land, by maintaining a favorable atmosphere with good mulching. *The living soil is an organic entity and this entire web of life must be protected and nurtured. Natural Farming is the way.*

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