

Natural Farming: A Way Towards Greener Tomorrow

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Introduction

Farming is not only a way of growing crops. It is a way of living life. Indian agriculture from ancient time is not just a practice of cultivating the soil, it is a practice of living a life. The main motive of agriculture is not the production of crop but production of healthy life.

The practices of agriculture not just effect the production but it also affects the health of soil, health of humans, health of animals and in a big picture it affects the environment also. The need and demand of food, fodder and feed is meet by agriculture and thus it is the backbone of any civilization.

Indian was facing many problems related to the food grain production. We were not able to provide security our population. Then in mid 90s we saw the biggest revolution in food grain production that is “Green Revolution”. The implementation of food production strategies through green revolution in a steady pace made India a country of self-reliability in tears of food grain production. The introduction of dwarf varieties of wheat and rice along with use of other inputs (fertilizer, pesticides and water) has made us self-sufficient in the food grain production in a steady pace. But with the passage of time the inherent capacity of soil to supply nutrients started to degrade as a result of intensive cropping and monocropping in some areas. A prominent example of this is Punjab. Punjab was selected as the focal point for introducing the green revolution in India. Punjab is important state in terms of productivity of rice and wheat. But it is just one side of the coin. Other side of the coin is not that much shining. No doubt the production and productivity of rice and wheat is more but at what cost? The cost paid for this is soil fertility, soil productivity and health of humans and animals. For attaining this much production the soil and water resources were not just used they were exploited to a level that today the water level in Punjab has gone very low. The soil has become the reservoir of pesticides. The residues are no not just limited to the soil it is coming in the harvested crops and it is coming in the food that is consumed by the humans and animals. This has also increased the case of cancer in our all country. This is a matter of concern for the food security.

A train running in India from Bhatinda in Punjab to Bikaner in Rajasthan is named as “Cancer Train” because in this train number of persons were travelling for their treatment of cancer. Such conditions should be considered as “alarming”.

This conditions of residues of pesticide and degrading soil health are raised today we are doing farming by dominating the nature. Now it’s time that we start working we nature rather seeking dominance over it. It will take us back to our ancient method of farming. Also known as “Rishi Krishi”. We have to adopted the way of farming that was done by our ancestors. We have to go towards “Natural Farming”.

Natural Farming

Natural farming is simple terms deals with the farming practices in which we have to grow crops along with animal husbandry by working with nature. To work with nature means we should not interfere with the natural processes of generation. We have to fallow simple ideas governing the concept of working with nature. It’s a farming in which no tillage should be done, no use of fertilizer and compost, no hand weeding or use of herbicide and no use of pesticide. In other terms it is a farming in which we have to reduce the use of purchased inputs and increase the use of on farm resources. When we will follow the above-mentioned practices then the soil will start its rejuvenation process. The soil health will start its process of healing. Natural farming will decrease the concern related to the excessive use of pesticides and fertilizers. Ultimately the environment will become more sustained.

Principles of Natural Farming:

There are mainly five governing principles of Natural Farming:

- 1. Beejamrit:** We have to give seed treatment with Beejamrit. It is made by mixing: Indigenous cow dung, cow urine, lime, water and one handful of arable soil (uncultivated soil). By this the roots will grow quickly. Plants can survive well against soil-borne diseases. Cow dung is having anti-fungal properties which will protect seeds against fungus.
- 2. Jeevamrit:** Natural farming mainly focuses on increasing the microbial population in the soil this is achieved by application of Jeevamrit. Jeevamrit is a mixture of Indigenous cow dung, cow urine, jaggery, gram flour, water and soil. This will behave as inoculum of microorganisms. When we will apply this in the soil then huge number of microbes will be circulated to soil. This will increase the native poll of the microbes

in the soil. This microbe reservoir is responsible for making the unavailable binded nutrients into available nutrients i.e mineralization of the native pool of nutrients.

3. **Ghan jeevamrit:** We have to make a mixture of Indigenous cow dung, cow urine, jaggery and gram flour. It can be used in two forms: one is by make laddu of this and the other one is by make dry product of this and spreading in the field. This will beneficial to the soil as it has good quantity of microbes.
4. **Mixed cropping:** As we are not going to apply any fertilizer, so for fulfilling the demand of nitrogen in the soil inclusion of pulses in the cropping pattern is very important. As it will fix the atmospheric nitrogen in the soil thus the requirement of nitrogen by the crops will be fulfilled. This mixed cropping will also be beneficial from the point of view of annidation in space and time.
5. **Mulching:** The practice of keeping the soil covered throughout the year is very important aspect of natural farming. It will reduce the direct exposure of soil to heat and thus it will create a micro-climate in which the soil microbes will thrive. The earth worm population will also increase as mulching will create dark effect (shade) which is favorable for earthworms.

We have to consider one more point in natural farming. Indigenous seeds have to be used. No use of hybrids or improved varieties should be done.

The above-mentioned principles have to be followed for doing the natural farming.

Plant Protection

Various plant-based bio-inputs are made for the plant protection. Namely: Neemastra, Brahmastra, Agniastra etc. which are made from natural ingredients which have some properties like repellent, anti-microbial, anti-bacterial, anti-fungal which helps in the natural control of insects and disease-causing pathogen.

Advantages of Natural Farming

Natural farming promotes soil health by increasing earthworm populations, which enhance soil porosity and water-holding capacity while reducing water stagnation caused by soil compaction. It revitalizes the native microbial pool, restores soil fertility, and eliminates chemical residues, creating a healthier environment. By optimizing on-farm resources and reducing reliance on purchased inputs, natural farming significantly lowers the cost of cultivation, making agriculture more sustainable and economically viable for farmers.



Challenges in Adoption of Natural farming

The adoption of natural farming faces challenges such as concerns about reduced crop yields, lack of farmer training in preparing natural inputs, labour-intensive practices, dependency on plant- and animal-based products for plant protection, and limited availability of indigenous breed cows essential for resource generation. These factors create hesitation among farmers, making the transition to natural farming more complex.

Conclusion

Natural farming presents a transformative approach to agriculture, addressing critical issues such as soil degradation, environmental pollution, and the economic burden on farmers. Rooted in sustainable principles, it emphasizes harmony with nature, reducing dependence on external inputs while promoting soil health, biodiversity, and climate resilience. Despite its numerous advantages, including cost-effectiveness, improved soil fertility, and healthier produce, the adoption of natural farming faces challenges like initial yield reductions, labor intensity, and lack of awareness. Addressing these hurdles through education, policy support, and market development is essential to unlock its full potential. Natural farming not only offers a viable solution for sustainable agriculture but also paves the way for a healthier and more equitable future for farmers and consumers alike.