

Zero Budget Natural Farming (ZBNF)

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Rajat Singh, Robin Kumar* and Vivak Kumar

Department of Soil Science and Agricultural Chemistry
Acharya Narendra Deva University of Agriculture and Technology
Kumarganj, Ayodhya

Sardar Vallabhbhai Patel University of Agriculture and Technology, Modipuram, Meerut

Email- ynsrajat18@gmail.com

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Introduction

Zero Budget Natural Farming is a chemical-free farming method based on traditional Indian techniques, in which the overall cost of growing and harvesting plants is zero.

Subash Palekar, an Indian agriculturist and Padma Shri laureate, is the father of zero-budget natural farming. He developed it in the 1990s as an alternative to the green revolution's strategy of chemical fertilizers and pesticides, as well as extensive irrigation. He said that the rising expense of these external inputs was a leading source of agricultural debt and suicide,

while the impact of chemicals on the environment and long-term fertility was disastrous.

Zero budget farming refers to a set of farming practices that include no credit for agriculture and no chemical fertilizer use. The ZBNF uses four pillars/wheels instead of commercially generated chemical inputs:

1. Jeevamrutha
2. Bijamrita
3. Acchadand (Mulching)
4. Whapasa (Aeration)



Jeevamrutha- Jeevamrutha is a liquid natural fertilizer made from microbial fermentation of fresh desi cow dung, aged desi cow urine, water, jaggery, pulse flour, and mud, which feeds the soil with nutrients and promotes microbe growth and mineralization. Also acts as a catalyst, promoting microbiological activity and the presence of earthworms in the soil.

Bijamrita- Similar to jeevamrutha, Bijamrutha ('Bija' stands for seeds) is a treatment for seeds, seedlings, or any planting material that helps to protect the roots from fungus as well as soil-borne and seed-borne diseases that typically impair plant growth.

Acchadana (Mulching) - Mulching is the placement or application of any organic or inorganic material over the soil's surface.

Mulching improves soil fertility, keeps moisture and warmth in the soil, suppresses weed growth, and protects the soil from erosion.

Whapasa- Whapasa is a state in which the soil contains both air and water molecules. Whapasa aids in the reduction of irrigation needs.

Apart from the least cost incurred in this type of farming the ZBNF also promotes-

- Intercropping
- Minimal watering
- Soil aeration
- Bunds and topsoil mulching

Intensive irrigation and deep ploughing are not promoted in ZBNF

Astra's of ZBNF against pest attacks:

Bramhastra: Cow urine, neem leaves, custard apple leaves, papaya leaves, pomegranate leaves, guava leaves mixture is used to control all sucking pests, pod borer and fruit borer.

Agniastra: Tobacco, neem leaves, green chillies, garlic, cow urine is mixed and used

against leaf roller, stem borer, fruit borer and pod borer.

Neemastra: Water, cow urine, cow dung, and neem leaves mixture is used against sucking pests and mealy bug.

Reasons for adopting ZBNF

- Increase in net returns
- Inputs materials are readily available
- The plants will be healthier (more tillers and panicles)
- Initial push by the government
- Ease in preparation of inputs (materials)
- Fertilizer and pesticides cost was reduced
- Chemical-free food
- Assistance from the government