



Natural Farming for Combating Climate Change

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Introduction

- Alternative low-input farming practices have emerged in India and across the world likely to reduce input costs and higher yields for farmers, chemical-free food for consumers and improved soil fertility.
- Natural Farming is one such low-input, climate-resilient farming that inspires farmers to use low-cost and locally-sourced and available inputs, eliminating the use of artificial/chemical fertilisers and industrial pesticides.

Natural Farming

- An approach towards **sustainability**
- Expense-free farming
- Farming up to **30 acres with one native cow**
- Farming with **minimum** electricity and water consumption
- Producing quality food
- Agriculture without external input
- Techniques of multi-crop cultivation for higher net income
- Reducing external labour requirement
- Farming in tune with **nature**



NATURAL

INPUT

MULTI

CROPPING

LOW INPUT

FARMING

MULCHING

PRINCIPLES

✓ Freely available resources in nature
✓ Non toxic production



✓ Soil protection

 \checkmark Creates conductive environment for biological processes in the soil

✓ Minimizes the risk of failure ✓ Continuity of income source

Soil mulching

- ✓ It is necessary to create the microclimate under which micro-organisms can well develop, that is 25 to 32 °C temperature, 65 to 72 % moisture.
- \checkmark It creates darkness and warmth in the soil.
- ✓ It conserves humidity of the soil, cools it and protects its micro-organisms.
- Mulching promotes humus formation, suppresses weeds and maintain the water requirement of crops.



Multicropping

- Multicropping is a good way to minimize the risks for the farmer who is able to enjoy continuity of yield throughout the year.
- ✓ In case of a crop's failure he can also rely on the other crops.
- ✓ It has expanded farmers' income sources.



Importance of Indigenous Cow

- One gram of desi cow dung contains 300 to 500 crores of beneficial effective microbes.
- Micro-organisms decompose the dried biomass on the soil and make available the nutrients to the plants.



4 wheels of Spiritual Farming

Bijamrita

A seed treatment method keeping microorganism in tact in soil

Mulching

A process to circulate air in soil, conserve water and moisture

Jiwamritra

A tonic triggering micro-oraganism to make nutrients of soil available at root zone

Waaphasa

A microclimate in soil through which roots and soil organism live freely

Bijamrutha

• It is a mixture of water, cow dung, cow urine, lime and forest soil which is used to treat seeds, seedlings or any planting material which **protects from soil and seed borne pathogens.**

Jivamrutha

- It is a mixture of water, cow dung, cow urine, jaggery (unrefined brown sugar), flour of any pulse when applied over soil **promotes biological activity and adds soil microbes.**
- It acts as a catalytic agent to promote biological activity thereby breaks the nutrients available in the soil by increasing soil microbes.

Waaphasa

- If there is no Waaphasa (soil aeration) in the soil, the plants will die.
- For this, water is sprayed on degradable materials that are allowed to remain on the farmland.
- This forms humus that helps retain the moisture and nutrients in the soil.
- Farmers need to draw only **10 per cent of the required water** from the soil for cultivation using this method.

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Bijamrita, Achadan , Wafsa and Jivamrita Amrit Pani , Vermi compost, Vermi wash etc.

Use of these Bio-enhancers is a best model in organic agriculture which is becoming popular among farming com-munity. In fact these are organic preparations, obtained by active fermentation of desi cow (Indigenous cow) & plant based residues over specific duration. The basic components are cow dung and cow urine. For enhancing their affectivity few others; cow and plant products are used.

Results: Improved Soil well Texture and soften the soil, Cost of cultivation is reduced, Farming income increased, Production of good & quality agriculture products,

Currently; In our Area about 300 farmers adopted Organic farming and gain good production in farm production.

PRACTICING FARMER IN SOUTH GUJARAT



Mr. Thakorbhai Davajibhai Patel

At Post: Tiskari Talat, Tahasil: Dharampur, Dist: Valsad is a progressive Natural farming practitioner.

He has 21 Gir cows in his farm and doing agriculture naturally. Many natural farming lovers visit his farm and take guidelines from him. He is acting as a resource person for Natural farming abhiyan. Many agricultural scientists along with the farmers visit his farm often to motivate others to do in the same way. In his 05 Acres farm land he has Mango, Paddy, Pigeon pea, Urd and other vegetables, for management he is preparing Panchgavya, Jeevamruth and Ghan Jeevamruth, Neemastra, Brahmastra and different types of plant extracts as pest repellent and antifeedant to manage pest and diseases.

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