

Natural Farming and its components

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Introduction

Natural farming is an indigenous farming method based on indigenous cow and cow urine. In this farming method there is no chemical fertilizers, pesticides and less financial involved in it. All the input items used in the natural farming are natural resources and home made only. In natural farming one indigenous cow is sufficient for cultivation of 30 acres land. In this type of farming the elements found in nature are used as fertilizers and pesticides in farming. In natural farming for supplying of nutrients to crops, *Jeevamrit*, *Ghanjeevamrit*, etc are used and for protection from disease and pest management *Astra* (*Neemastra*, *Bhrahmastra*, *Agniastra* etc.)

Importance of Natural Farming

1. Conservation of beneficial Soil Microorganism
2. Conservation of Soil fertility
3. Protection of Environment
4. Reduction of cultivation cost
5. Protection of Human Health
6. Increase water holding capacity in soil
7. Prevent soil erosion
8. Increase overall income
9. No used of chemical pesticide and fertilizer

Where villages are moving towards natural farming and bringing transformation in natural like and successful experiments of natural farming are being done in cities also. Looking at these achievements without government assistance, it can be imagined that if the state gets support in this a large number of farmers can get benefits. The Government of Bharat is encouraging people to promote natural farming but this encouragement should be through

publicity and awareness as well as at the grant and financial level. Bharat subsidized in chemical fertilizers in large quantities. The grant has increased from 60 core in the year 1976-77 to Rs. 1.75 trillion at present (2023-24 Budget). One of Bharat's biggest economic burdens has been the central subsidy provided for synthetic fertilizers.

Why Natural Farming?

- To maintained agricultural culture
- For self-reliant India
- For long life of land
- To stop Global warming
- For good Health
- For water Conservation
- To save Desi cow progeny
- To change the lives of farmers

Objective of Natural Farming

- To make farming viable and favorable by increasing the net income of farmers through cost reduction, less risk and uniform yield.
- To prepare essential organic inputs using natural and domestic resources.
- To encourage and drastically reduction of cost of production.
- Making sustainable agriculture
- By increasing the soil microbial population, increasing the organic carbon of soil, increasing the fertility of the soil

Principles of Natural Farming

- ✚ **Desi Cow:** Natural farming agriculture practice is based on Desi cow. There are 300-500 crore microorganisms in one gram dung of local desi cow whereas only 78 lakh microorganisms are found in one gram dung of exotic breed like Jersey (from USA), Holstein-Friesian (from Holland) and Brown Swiss (from Switzerland), Ayrshire (Scotland) and Guernsey (Franch).
- ✚ **Ploughing:** Deep ploughing should not done in natural farming. The earth itself is cultivated naturally through the penetration of plant roots and earthworms, small animals and microorganism.

- ✚ **Water management:** Irrigation should be done at some distance from the plants. 90% of water is save in natural farming.
- ✚ **Crop Direction:** Crops should sow from north to south, in which the plants are getting longer period of sunlight. Due to presence of longer period of sunlight disease and pest population also minimized.
- ✚ **Intercropping:** Intercropping with pulse crop between the rows of main crop which supplies nitrogen, manage the disease and pest incidence and Increase in total productivity per unit land area.
- ✚ **Mulching:** Soil should be covered with crop residues in whole crop season as well in the off-season but not plastic sheet. Mulching stop soil erosion, maintained soil moisture and prevent weed.

Wheel of Natural Farming

- **Bheejamrit**
- **Jeevamrit**
- **Wapsa**
- **Achadhana**
- **Astra**

Bheejamrit:

Before sowing the seeds, seedling or planting material of any crop, it should be treated with *Beejamrit* and sown or transplant. Treat the seeds with *Beejamrit* and leave them to dry for some time. Sowing of seeds should be done after drying of *Beejamrit* applied on the seeds. It is effective in protecting young roots from fungus as well as from soil borne and seed borne diseases that commonly affect the nursery bed.

Requirements:

- | | |
|--|---------|
| 1. Water | - 20ltr |
| 2. Desi Cow Dung | - 5kg |
| 3. Desi Cow Urine | -5Ltr |
| 4. Lime | -50g |
| 5. Fresh Soil from under the banyan tree or forest | -500g |

Jeevamrit

Preparation

Tie 5 kg of desi cow dung with a cloth and hang it in 20 litres of water for 12 hours



Then squeeze this cow dung bundle in water continuously 6 times in next day



Mix a handful of soil (from under a banyan tree or undisturbed field) in that solution and stir well.



Add 5 litres of cow urine and 50 grams of lime stir well and keep it overnight and add it to the above solution the next day

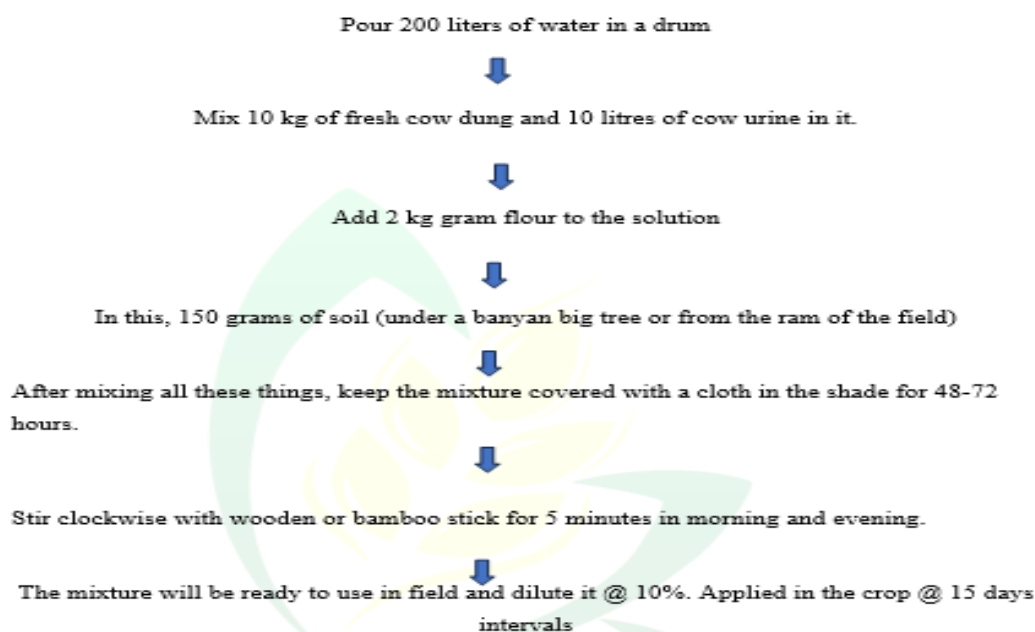


Treat the seed and dry it in shade or deep the nusery or planting material for 15min.

It is a fermented liquid organic manure. With the help of *Jeevamrut*, the soil gets nutrients and it acts as a catalyst. Because of which the activity of microorganisms in the soil increases. Apart from this, with the help of *Jeevamrut*, trees and plants can be protected from diseases caused by fungi and bacteria. 200 liters of Jeevamrut mixture is required for one acre of land. The farmer will have to spray *Jeevamrut* twice in a month in his crops. It can be used by mixing in irrigation water or drip irrigation.

Requirements:

- | | |
|--|----------|
| 1. Water | -200ltr |
| 2. Fresh Desi Cow Dung | - 10kg |
| 3. Desi Cow Urine | -10Litre |
| 4. Jaggery | -2kg |
| 5. Besan | -2kg |
| 6. Fresh Soil from under the banyan tree or forest | -500g |

Preparation of Jeevamrit**Acchadana:**

Soil to be kept covered by crops and crop residues, which protects the soil during cultivation. This layer prevents the water loss from soil through evaporation, prevents the field from heat and pest attack. The process of mulching also helps in weed suppression. The mulch contributes to soil humus formation and increases its fertility.

Waaphsa:

Soil aeration to maintain the required moisture-air balance, soil structure, and proper irrigation and drain out the excess water from the field.

Crop Protection Measures (Astra)

In natural farming, decoctions of leaves of various plants are used to protect crops from pests and diseases.

Neemastra

Neemastra is used in crops to control aphids, jassids, mealy bugs, thrips, whiteflies, small caterpillars and other sucking pests. 250 liters of Neemastra is sufficient for spraying in one-hectare crop.

Requirements:

1. Fresh Neem Leaves - 5kg
2. Desi Cow Urine - 5Litre
3. Cow Dung - 1kg

4. Water -100Litre

Brahmastra

Brahmastra is very beneficial for protection from pests on crops. It is used to control large caterpillars and many other types of pests. To make Brahmastra, select any of the above five ingredients. Grind all the leaves together well. Put this mixture in an earthen pot and boil it with 10 litres of water. After 3-4 boil, take it down from the flame. Let it keep for 48 hours. After this, mix 10litre of cow urine in it and filter it with a muslin cloth and keep it in an earthen pot to store. It is important to protect it from the sun and the solution may be stored for up to 6 months. Spraying should be done by mixing 2 to 3 litres of Brahmastra in 100 litres of water.

Requirements:

1. 10 litre cow Urine
2. 20 litre of water
3. 3 kg of Neem leaf
4. 2 kg of Karanj
5. 2 kg of Castor
6. 2 kg of Datura
7. 2kg of Calotropis

Preparation of Brahmastra

Collect and make paste of 3kg neem leaves, 2kg of each leaves of karanj, castor, datura and calotropis



Take 20 litre of water in an earthen pot



Add paste of 3kg neem leaves, 2kg of each leaves of karanj, castor, datura and calotropis



Boil it 3-4 times and Take down from flame



Let it keep for 48 hours. After this, mix 10 litre of cow urine in it and filter it with a muslin cloth and keep it in an earthen pot to store in shade. The solution may be stored for use up to 6 months.



The Brahmastra be ready to use in field @ 2-3 litre in 100 litre of water

Agni Astra

It is used to protect against the trunk borer, fruit borer and pod borer.

Requirements:

1. 20 litres cow urine
2. 5 kg neem leaves
3. 500g tobacco powder
4. 500g green hot chilli
5. 500g garlic
6. 5kg grind neem leaves

Preparation of Agni Astra

Take 20 litre of cow urine in an earthen pot



Add 20 litres cow urine , 5 kg neem leaves, 500g tobacco powder, 500g green hot chilli, 500g garlic, 5kg grind neem leaves



Boil it 3-4 times and Take down from flame



Let it keep for 48 hours and filter it with a muslin cloth and keep it in an earthen pot to store in shade.



The Agni astra be ready to use in field @ 2-3 litre in 100 litre of water

Fungicide:

Requirement:

1. 3 liters of sour buttermilk or Lassi
2. 100 liters of water

Preparation: Mix 3 litres of sour buttermilk or lassi in 100 litres of water and spray on crop.

It is fungicide and anti-viral.