

ORGANIC FARMING-BOOKLET

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Govt. of India
Ministry of Agriculture & Farmers Welfare
Department of Agriculture, Coop.& Farmers Welfare
National Centre of Organic Farming
Hapur Road, Kamla Nehru Nagar, Ghaziabad 201002

BEEJAMRIT

Ingredients :

- Cow dung - 5 Kg
- Cow urine - 5 Litre
- Lime - 50 gram
- Water - 20 Litre
- Seed of Wheat - 100 Kg
- Forest soil/Banyan tree (surrounding root soil) - 50 gram



Seed Treatment:

- Beejamrit is used for seed treatment. It protects seeds from seed borne disease which is more important.
- Beejamrit enhances germination viability of seeds.
- Roots spread vigorously and also protected from any pest attack.



Preparation :

- Take 20 litre of water in a drum and add the above ingredients. Mix it properly.
- Leave the solution for 24 hours under the shade.
- Spread the 100 Kgs seeds on cement floor or on polythene sheets.
- Sprinkle the ready solution of Beejamrit on seeds uniformly, mix it gently for coating of Beejamrit on the seeds.
- After air dry of seeds, sow it in evening or early in the morning.
- Beejamrit controls seed borne disease.

SANJEEVAK

Sanjeevak enhances microbial activity in the soil.

Ingredients :

- Cow dung - 30 Kg
- Cow urine - 3 Litre
- Jaggery (Gur) - 500 gram
- Water - 100 Litre

Preparation :

- Leave the solution for fermentation for 10 days.
- Now Sanjeevak is ready.
- Mix with light irrigation water to spread in the field either before sowing or after sowing.

Uses :

- In 1st year use 1000 litre per acre,
- In 2nd year use 800 litre per acre,



- In addition, 3 tonnes of well composted cow dung is used per acre after every 3 years interval, the soil fertility enhances tremendously which reflects in the yield.

JIVAMRIT

Ingredients :

- | | |
|-------------------------|----------|
| • cow dung | -10 kg |
| • cow urine | -10 lit |
| • Jaggery | -2 kg, |
| • any pulse grain flour | -2 kg |
| • Live forest soil | -1 kg |
| • Water | -200 lit |



Preparation :

- Take 100 liter water in barrel and add 10 kg cow dung plus 10 lit in cow urine.
- Mix well with the help of wooden stick add two kg jaggery and two kg of gram or any pulse flour mix this solution well with wooden stick.
- Keep this solution for fermentation for 5 to 7 days.
- Shake the solution regularly three times a day.



Use :

- Used as soil application either by sprinkling or by applying through irrigation water. Three applications are needed one before sowing, second after twenty days of sowing and third after 45 days of sowing.

COCONUT- CHHANCH SOLUTION

- | | |
|--------------------------------|------------|
| • Cow's Butter Milk (Chhaanch) | - 5 Litre |
| • Coconut Water | - 1 Litre |
| • Fruit juice | - 1 Litre |
| • Turmeric | - 100 Gram |
| • Hing | - 20 Gram |
- Dilute this 1 litre of solution with 10 litre of water and sprinkle on standing crop.
 - Fungal disease and sucker pests are controlled with this solution.



AAGNEYASHTRA

It acts as pest control.

Ingredients & Preparation :

- Take 10 litre of cow urine,
- Add 1 Kg of Besharam leaves (Ipomoea), 500 gram garlic and 5 Kg of neem leaves and then crush all.
- Boil the solution till it becomes half of quantity,
- Filter by squeezing the all materials,
- Store the solution in glass/plastic bottle, Dilute 2-3 extract solutions in 100 litre of water.
- Sprinkle in 1 acre of standing crop,
- Stem borer, fruit borer and other types of pests are controlled.



NEEMA STRA

(Broad Spectrum Botanical based Pesticide)

Neemastra is also a local concoction which control wide range of pests.

- Crush 5 Kg neem leaves in 50 litre of water,
- Add 5 litre cow urine and 2 Kg cow dung,
- Stir whole solution 5-6 times in day,
- Leave it for 24 hrs for fermentation,
- Filter and make up (dilute) in 100 litre of water
- Sprinkle on leaves of crop sown in one acre,
- Sucker pests, rice weevil and other pests are controlled.



NADEP Method of Composting

This method is developed by an old Gandhian worker of Maharashtra (from Pusad), called Narayan Deorao Pandharipande and therefore derives its name abbreviated as NADEP, to the method of composting.

Construction of tank:- NADEP compost is prepared in an aerobic tank made up of bricks and cement. The size of the tank is 12'x5'x3'. All the four walls of NADEP tank are provided with 6" vents by removing every alternate brick after the height of 1 ft. from bottom for aeration. Tank can be constructed in mud mortar or cement mortar (Fig).

First Filling

Before filling, the tank is plastered by dilute cattle dung slurry to facilitate bacterial activity from all four sides. It is then filled in definite layers consisting of the following sub-layers.

Sub-layer -1:- 4 to 6" thick layer of fine sticks or stems of tur stalk / cotton stalk (This is provided for the initial layer only to facilitate aeration), followed by 4 to 6" layer of dry and green biomass.

Sub-layer-2:- Approximately 4 kg cattle-dung is mixed with 100 litres of water. This slurry is sprinkled thoroughly on the agricultural waste to facilitate microbial activity. This slurry is used only as a bacterial inoculum in this method.

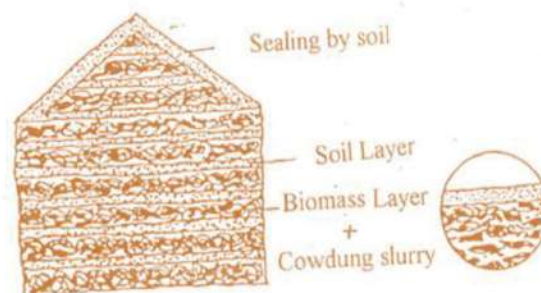
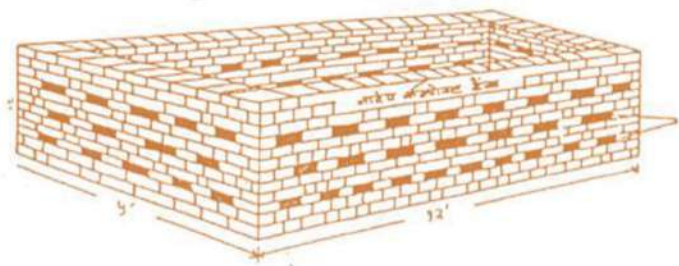
Sub-layer-3:- Approximately 60 Kgs of soil is sprinkled uniformly over the biomass layer. Addition of soil serves three purpose (1) retention of moisture (2) soil micro-flora helps in biodegradation and (3) it acts as buffer and controls pH of media during decomposition.

In this way, approximately 10-12 layers are filled in each tank. The tank is filled approximately 1.5' above the height of the tank. After filling the tank, biomass is covered with 3" thick layer of soil and sealed with cattle-dung and mud plaster. After 15-30 days of filling ,the organic biomass in the tank gets automatically reduced to 2 ft. At this time, without disturbing the initial sealing layer, tank is refilled by giving 2-3 similar layers over it and is resealed. After this filling, the tank is not disturbed for 3 months, except that it is moistened at intervals of every 6-15 days according to the weather conditions.

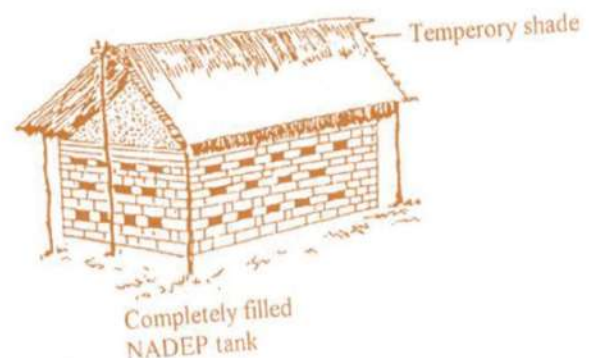
From each NADEP tank, approximately 2.5 tonnes of compost is prepared within 90-120 days.

Innovation in 'NADEP' Technology (I.I.T. Delhi)

In states like western U.P., Haryana, Punjab, large amount of dung is easily available whereas availability of surplus agro residues / biomass at the household level is limited due to socio-cultural reasons. Also, it is difficult to fill and seal the tank within 48 hrs. Hence, acceptability of 'NADEP' Technology remained very low. Based on the research work carried out at I.I.T. Delhi, a new method was developed through optimizing the ratio of substrates, filling duration, additional alternative modes of aeration to the microbes etc.



Filling of NADEP Compost tank



- Thus in the new method, filling is done systematically as mentioned earlier but the raw material for composting is taken in the following ratio.
- 20% biomass/agro-residues and house hold ash, 50% dung and 30% soil. Filling period can be extended up to 4-5 days
- Biggest advantage of this method is that amount of water required is very less and optimum moisture in the tank is maintained without spraying extra water. In summer the tank needs to be protected from direct sunrays using suitable shade
- If suitable space for tank construction (from the angle of making holes for aeration) is not available with the family, then tank can be constructed using support of one / two walls already built. Under such a situation, adequate aeration can be achieved by inserting a few bamboos (having holes) in the composting mass

Phospho-Compost

Phospho-compost is an organic and natural manure. It is produced from crop residues, cattle dung, urine and other similar organic matter. These organic residues are mixed with phosphorus-rich rock phosphates or pyrite and enriched with phosphate solubilising microbes. This enables the non-solubilised nutritional factors like phosphorus to get solubilised, which can easily be taken up by plants from soil.

Method of phospho-compost production

Since long, farmers have been using compost in agriculture; but the traditionally prepared compost is very low in nitrogen and phosphorus, which may amount to the extent 0.5% and 0.25%, respectively. Phospho-compost contains these ingredients 2-8 times more. The Method of phospho-compost production is as follows.

i. Pit size:- Generally, pits of the size 2.5 m x 2.5 m x 1.0 m are dug. The size can be varied on the basis of the availability of organic matter. Pits should be dug at an elevated place, where rainwater does not enter and stagnate. If the pits are made impermeable (RCC) nutrient loss may be avoided

ii. Filling of the Pits:- Organic matter or crop residues are layered at the bottom for 3-4 inches over this rock phosphate, cattle dung, soil and saprophytic inoculum is sprinkled in the form of suspension. Then, a second layer of organic matter is added. To bring about uniform exposure of organic matter to the microbial inoculum, small heaps of organic matter is mixed thoroughly with inoculum before adding to the pit. In this way, alternate layers of organic matter and microbial suspension are put to fill the pit completely. While filling the pit, organic matter, cattle dung, soil and compost are added in the ratio of 8:1:0.5:0.5,. The whole mixture contains 12.5% rock phosphate and saprophytic microbes are used @ 0.5 kg/MT of organic matter. To prepare nitrogen-rich phospho-compost, pyrite @ 10% w/w and nitrogen @ 1% w/w is used. It is especially monitored that organic matter contains 50-60% moisture. After filling the pit completely with organic matter, it is covered with either plastic sheet or mud.

iii. Aeration of the Pit:- For appropriate microbial action, content of the pit has to be given 3-4 turns in every 15 days. Prior to turning adequate water should be sprinkled on the decaying organic matter, so that 60-70% moisture is maintained. In this way, phosphorus-rich well-ripened (applicable to crops in farm) phospho-compost will be ready within 3-4 months.

The manure can be collected and stored in shed. The final compost to be stored must have 12-15% moisture level. It can be then packed into 50 kg polypropylene bags and stored. Such ready phospho-compost can be used as phosphoric manure.

Vermicompost

The term "vermicomposting" means the use of earthworms for composting organic residues. Earthworms can consume practically all kinds of organic matter and they can eat as much as their own body weight per day. The excreta or "casting" of earthworms are rich in nutrients (N,P,K and Mg) and also in bacterial and actinomycetes population. The collection of vermicast along with microbially degraded organic compost is called vermicompost.

Requirements for production of earthworms for vermicomposting

To produce vermicompost enough earthworm population is required and as a corollary, their multiplication on a large scale is essential. To achieve the goal of economic multiplication of earthworms, it is necessary to fulfill the following basic requirements.

a. Selection of suitable earthworm species:- Among the 3000 species of earthworms so far identified in the world, only a few species are known to be used for economic multiplication of earthworms for vermicomposting. The species identified for multiplication & vermicomposting are (i) *Eisenia foetida* (ii) *Eudrilus eugeniae* and (iii) *Perionyx excavatus*. The first two are exotic and last one is indigenous. These species are most suitable because these are (a) prolific breeders with high multiplication rate, (b) having short life cycles with less mortality and (c) voracious feeders. They are easy to handle, having 1 to 1.5 years longevity, sturdy and survive very well throughout the year under varying weather conditions. Such species are economically feasible for vermicomposting and are easily available.

b. Suitable and adequate food:- Any well-decomposed food of any organic waste in adequate quantity having C/N ratio of 20 to 40 can form feed for earthworm. If the C/N ratio is less than 20 it can be used directly as manure.

c. Adequate moisture:- Earthworms cannot survive without moisture. Water is one of the most important requirements. Earthworms contain 85% water in their body and hence constitute the basic need. Respiration is done through the body wall, it is kept moist. Much water is lost from the body through urine. Thus, more than 35% water must be present in the earthworm feed for proper growth. Earthworms do not have any protective body cover and they have to keep the body surface moist as the body wall serves as respiratory organ. They will be constantly releasing mucus through the dorsal pores to

keep the body wet. Therefore it is essential to maintain 60% Moisture in the medium (one must feel the wetness in the material). Excess moisture or water stagnation creates anaerobic conditions in the medium and thus deters the growth of earthworms and also the quality of compost.

d. Suitable temperature:- The temperature limit of the earthworm feed should be in the range between 20⁰C to 35⁰C. The high temperature > 45⁰ C results into desiccation of the body and moisture stress and temperature below 0⁰C stops earthworm activities.

e. Protection from light:- Earthworms are nocturnal in habit and are hence active during night. They are injured and may be killed by exposure to light and are specially affected by ultra-violet wavelength. It is advisable to provide shade to the vermicomposting structures as earthworms are photonegative. They avoid day light and thus they are active during night. To increase their activity all through the day and night, it is essential to reduce the light intensity in the structure. (UV light will not affect the epigeic earthworms as they are pigmented). It is the heat factor of day light which is deleterious rather than the light intensity.

f. Suitable pH:- For effective multiplication of earthworms, pH of the feeding material should be at neutral level i.e. 7.0. The earthworm population is severely affected if the pH of the feed material is <4 & >9. Normally a pH range of 6.0 to 8.5 in the feed mix is suitable for the activity of earthworm. At the two given extremes, there may be slight reduction in food consumption and compost production. To get an ideal pH within this range, it is essential to use green matter along with dry biomass and regulate the moisture in the medium.

g. Location for earthworm multiplication:- Suitable place for multiplication should be under shade. Earthworms can be multiplied very well in pit and raised beds or on heap of 2' height filled with ready food of decomposed or partially decomposed organic waste.

h. The compost pit:- Compost pit of any convenient dimension can be dug in the backyard or garden or in a field. The most convenient pit of easily manageable size is 2m x 1m x 0.45cm. [A tank may be constructed with brick and mortar with proper water outlets or a plastic crate 60 cm x 30 cm x 30 cm with holes drilled at the bottom or empty wooden crates (drilled wood boxes) or well rings of 75 cm dia and 30 to 45 cm height can also be used with slight modification in the thickness of layers used.

Preparation of organic biomass for earthworms feeding

Earthworms are very sensitive to temperature; they cannot resist temperature beyond 35⁰C. Any biomass, dry or green, generates heat while decomposition and the temperature of the heap increases beyond 40⁰-50⁰C. Therefore, it is very essential to predigest the organic biomass before it is used as a vermifeed. It can be digested in heaps, pits or tanks. It is preferable to decompose organic biomass by using biodung technique (described on page 14) after 30 days when organic biomass is partially digested after two turnings and its temperature comes down to 25 - 30⁰C, it can be used for vermicomposting. Similarly, fresh cattle-dung also cannot be used for vermicomposting as the generation of ammonical gases

and high temperature of cattle-dung heap becomes lethal for earthworms. Thus, cattle-dung heap of the size 3m x 1.5m x 1.5m shall be prepared in shade and about 50 - 60% moisture should be maintained in the heap for about 30 days. This heap also should be turned at least twice at the interval of 15 days. After 30-40 days when the temperature of the heap is reduced to 25-30⁰C, this predigested or partially digested cattle-dung should be transferred to vermibed.

Preparation of vermibed

Like temperature, earthworms are also very sensitive to light. Therefore, shade (either tree shade or artificial tin shade) is must for vermicomposting. Vermibed of the size 3m x 0.9m x 45cm can be prepared under shade. The breadth of bed should not exceed 1.2 m and depth or height should not exceed 45cm to avoid compaction and heat generation from the organic matter. The bottom layer of vermibed should be loosely lined with brick pieces, pebbles or twigs to facilitate aeration and avoid compaction. At the bottom layer dry and hard agriculture biomass should be given. To save from red ants, lining of wood or charcoal ash also can be given over vermibeds. Similarly covering the bed with neem leaves or other dry biomass like wheat straw paddy straw or dry grass also can help in protecting worms from red ants. This basal layer makes the housing for earthworms. After this, approximately 9" - 12" thick layer of half decomposed biomass over the basal layer of vermibed is made. Water is sprinkled over this layer to maintain moisture. 2000 earthworms are inoculated in one bed. Three common varieties used for vermicomposting are (1) *Perionyx excavatus* (2) *Eudrilus eugeniae* and (3) *Eisenia foetida* of which *Perionyx excavatus* is a local variety, while *Eudrilus eugeniae* and *Eisenia foetida* are exotic varieties. In a vermibed single/mixture of varieties can be used for vermicomposting.

Earthworms when released into the vermibed or tanks containing half decomposed organic biomass, enter in to it on their own and feed on the material, layer after layer and release their excreta on the surface. Earthworms keep moving down wards as most of the material at the top is converted into their cast. The process of vermicomposting i.e. conversion of partially decomposed organic matter to fine granular vermicompost takes 40-45 days. Every kg of earthworms feeds on 5 kgs of waste with 40 to 50% moisture per day. In this way, with the help of earthworms, composting can be carried out with minimum cattle-dung. Use of different materials like green biomass, fibrous material, dry leaf litter and animal dung in combination results in the recovery of good quality of compost. In the end, compost recovery will be around 50 to 60% of the original material both by weight and volume.

Compost preparation by using local earthworms

Beside exotic varieties, vermicompost can also be prepared by using local epigeic varieties of earthworms like *Perionyx excavatus*. These epigeic earthworms can be collected from moist and cool places like tree shades, irrigated orchards, kitchen drainage systems and near cattle sheds, where availability of moisture and organic matter is found throughout the year. However, epigeic earthworms can be collected in the rainy season. After collection these

earthworms can be transferred to vermibed as described earlier and vermicompost can be harvested after 40-45 days.

Harvesting of Compost

As soon as vermicast is collected on the top layer of vermibed, regular watering should be stopped. Due to loss of moisture from the surface and lack of feeding material earthworms will move downward. After 2-3 days, small heaps of compost are prepared on the vermibed and kept open. This facilitate earthworm to move downwards. Vermicompost is then harvested from the surface and stored in shade. Fresh feeding material is added in the vermibed. After 2-3 days the harvested vermicompost is sieved through 4-5 mm sieves. If the vermicompost contains many cocoons or juveniles or subadults, then compost is watered and covered with grass mulch. To collect small worms from vermicompost small balls of wet cattle-dung are prepared and they are buried at several places in the compost. As markers small pieces of stickes to identify the buried dung can be fixed. It is left for 15 days. After 15 days these balls of cattle dung are collected. Small earthworms juveniles, sub-adults or other escaped cocoons are all aggregated in the balls of cattle dung. They can be easily separated from compost.

Biomass production of Earthworms

The biomass production of exotic earthworms like *Eudrilus eugeniae* and *Eisenia foetida* may lead to a level of 40 to 90 folds in a period of 3-6 months with adequate space and food. For example a tank of the size 60 x 45 x 60 cm can hold a population of 1000 to 1500 adult *Eudrilus eugeniae*, three thousand to five thousand *Eisenia foetida* and *Perionyx excavatus*. The growth rate and reproduction of earthworms is controlled by population density. In case of *Eudrilus eugeniae*, earthworms remain small in size and produce less number of cocoons when they are crowded. *Perionyx excavatus* and *Eisenia foetida* can withstand the population pressure (density pressure) but *Eudrilus eugeniae* cannot. Thus frequent harvesting of earthworms is essential to bring down population pressure. It has been observed that addition of wheat bran; gram husk or grain powder and even neem cake increases or stimulates the reproductive potential of *Eudrilus eugeniae*.

Predators and Parasites of Earthworms

Although vermicomposting is very simple technology, care has to be taken to save earthworms from predators. A large number of invertebrates that predate upon earthworms are giant flat worms, the carnivorous slugs, the carabid and staphylinid beetles and the centipedes. The carnivorous earthworms like *Agastrodrilus* species is reported to feed upon earthworms. Besides these, frogs, toads reptiles, rodents, badgers, foxes, moles and birds are the main vertebrate predators (Fig. 4). Therefore the composting units either vermibeds or vermitanks should be well covered with wire mesh or with thorny leaves to protect from predators. Kitchen waste, half decomposed organic materials as well as cattle-dung attract red ants. These ants feed on cocoons and young earthworms. A native decoction which contains a mixture of 20 liters of water, 100 gms chilli powder, 100 gms turmeric powder, 100 gms salt and little soap powder is prepared and sprinkled over the bottom layer and corners of vermibed to save earthworms from red ants. In some cases where vermicompost is produced at commercial level vermicompost shed is surrounded by narrow water channel,

which protects the vermibeds from red ants. Besides this, for household level Vermicomposting, the wooden crates, baskets or small tanks used for vermicompost should be kept at 2 feet height from the ground level and should be covered from top to protect from predators.

Recommended dosage

Vermicompost is used like any other manure (a) 100 g of vermicompost for a pot containing 8 to 10 kg soil (b) 1-10 kg. of vermicompost per tree, depending on the size of tree, (c) 2000 kg vermicompost per acre of land, (d) Regular watering and mulching of the land is important, (e) No chemicals should be sprayed over the compost pit and (f) sprays of extracts from plant origin are recommended, only if necessary for plant protection.





Participatory Guarantee System - India (PGS - India)

Introduction

Participatory Guarantee System is a process of certifying organic products which ensures agriculture production process in accordance with the standards laid down for organic products and that desired quality has been maintained. This is exhibited in the form of documented logo or a statement. In order to promote domestic organic market growth and also to enable small and marginal farmer to have easy access to organic certification, a decentralized organic farming certification system called Participatory Guarantee System —India (PGS-India) is facilitated by the INM Division, Department of Agriculture, Cooperation & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Government of India. It is cost effective, farmer-friendly and hassle-free. It is outside the framework of third party system of certification, which is a pre-requisite to enter export market of organic produce.

Participatory Guarantee System - India (PGS - India)

Domestic Organic Certification

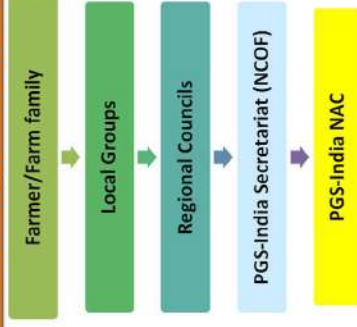
Govt. of India,
Ministry of Agriculture and Farmers Welfare,
INM Division, Department of Agriculture, Cooperation and Farmers Welfare
**National Centre of Organic Farming
(PGS-India Secretariat)**

Kamla Nehru Nagar, Hapur Road, Ghaziabad
Contact: 0120-2764906, 2764212, nbdco@nic.in
<https://pgsindia-ncof.gov.in/>

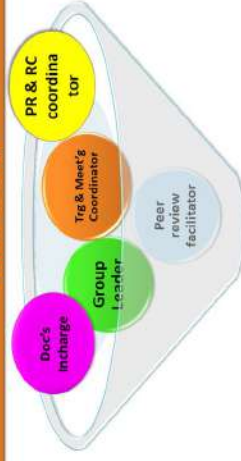
Guiding Principles

- Participation
- Shared Vision
- Transparency
- Trust
- Horizontality
- National networking

PGS- India : Organization structure



Local Group



PGS-India standards
Organic Farming/Produce



For online operation of this certification system a web portal :<http://www.pgsindia-ncof.gov.in> has been created. This web portal has online facility for


- (i) Registration (ii) Approval (iii) Documentation (iv) Record of inspection and (v) certification. It will promote transparency in certification process. It will lead to creation of a database of (i) Organic producers and (ii) area under PGS certification with due traceability.

It is a quality assurance initiative that is locally relevant with active participation of stakeholders including producers/farmers, traders and consumers in certification system. This group certification system is supported by Paramaparagat Krishi Vikas Yojana (PKVY) scheme. It in a way supports domestic demand for organic produce and trains the farmers in document management and adherence to other requirements of certification process and prepares him to opt for third party certification, if he wishes to go for export.




E-Commerce Platform for Organic Agri Produce & Inputs


- Platform for Buyer and Seller with less transaction cost
- Fair and transparent direct marketing
- Exclusively for Certified Organic Products
- Widespread reach of quality Organic Produce
- Better realization for farmers' produce



E-Bazaar
Online marketplace for buying organic products



Knowledge Management
Resources for guidance on how-to use the site



Input Suppliers
Details of Input Suppliers of different regions and products

Jaivikkheti portal is a unique initiative of Ministry of Agriculture (MoA), Department of Agriculture (DAC) along with MSTC to promote organic farming globally. It is a one stop solution for facilitating organic farmers to sell their organic produce and promoting organic farming and its benefits.

Jaivikkheti portal is an E-commerce as well as a knowledge platform. Knowledge repository section of the portal includes case studies, videos, and best farming practices, success stories and other material related to organic farming to facilitate and promote organic farming. . E-commerce section of the portal provides the whole bouquet of organic products ranging from grains, pulses, fruits and vegetables.

Buyers can now avail organic products at their door step through the portal at much lower prices. Organic farmers toil day and night to produce these best organic products and made them available for consumers via farm gate as well as door step delivery at very low prices as compared to market.

This portal links various stakeholders like regional councils, local groups, individual farmers, buyers, government agencies and input suppliers for the all-inclusive development and promotion of organic farming.

Through this portal we provide various price discovery mechanisms to help farmers get the best prices for their products through forward auction, price-quantity bidding, book building and reverse auction mechanisms.





Fixed Price Selling
Registered buyers can order organic products online by making online payment for the products which was set by the seller



Enquiry Based Buying
Registered buyers can place enquiry of products and organic sellers can place their quotes. The buyer can then buy from the qualified sellers



Raising Future Demands
Registered buyers can place their request for products which will be produced by the farmers in future



E-auctions
Various price discovery mechanisms for selling & buying products: Forward Auction, Price-Quantity Bidding, Book-Building & Reverse Auction.

Organic Farming Systems

Organic Farming is a method of farming system which primarily aims at cultivation of the land and raising crops in such a way, as to keep the soil alive and in good health by use of organic wastes (crop, animal and farm waste, aquatic wastes) and other biological materials along with the beneficial microbed (biofertilisers) to release nutrients to crops for increased sustainable production in an ecofriendly pollution free environment. Prevailing Systems of Organic Farming in India are Vedic Krishi, Zero Budget Natural Farming, Organic Farming, Biodynamic Agriculture, Yogic Agriculture, Homa Farming, Natueco Farming, Permaculture, The One-Straw Revolution.

- Vedic Krishi is to re-enliven Natural Law in agriculture, bringing farmer, the process of farming and the environment in complete harmony with each other. Natural Law is the unseen intelligence of nature the upholds and nourishes all life.

Vedic Krishi



- Zero Budget Natural Farming (ZBNF) is a concept which prompts organic farming without the off farm or market oriented inputs with the ecological friendly techniques under which is based on four basic inputs these are i) Beejamrut, ii) Jeevamrut, iii) Aachadana (Mulching) and iv) Waaphasa (Aeration) This basic concept has been promoted by Mr. Subhash Palaker

ZBNF



- Homa Farming has its origin from Vedas and is based on the principle that "you heal the atmosphere and healed atmosphere will heal you. The basic aspect of homa farming is the chanting of Sanskrit mantras (Agnihotra puja) at specific times in the day before a holy fire. No specific agricultural practice associated with homa farming. The ash that result from puja is used to energies composts, plants, animals etc.

Homa Farming



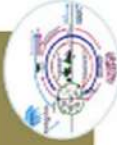
- Natueco Farming emphasis 'Neighborhood Resource Enrichment' by additive regeneration rather than through dependence on external commercial inputs. The three relevant Natueco farming are Soil enrichment of soil by recycling of the biomass by establishing a proper energy chain, Root-Development and maintenance of white feeder root zone for efficient absorption of nutrients. Canopy-Harvesting the sun through proper canopy management for efficient photosynthesis. Amrit Jal, Amrit Mitti and Gangaamma Chakkra/ or Mandali are used in this system.

Natueco Farming



- Biodynamic Agriculture is a method of farming to treat the farm as a living system which interacts the environment, to build healthy, living soil and produces food that nourishes and vitalizes humankind. In this system energies from cosmos, mother earth, mother cows and plants are systematically and synergistically harnessed. The principle of biodynamic is making life giving compost out of dead material. So far 09 biodynamic preparations have been developed named as formulation BD 500-508.

Biodynamic Agriculture



- Permaculture is a system of cultivation intended to maintain permanent agriculture or horticulture by relying on renewable resources and a self-sustaining ecosystem. An innovative framework for creating sustainable ways of living. It is a practical method of developing ecologically harmonious, efficient and productive systems that can be used by anyone, anywhere. Permaculture is a word originally coined by Bill Mollison and David Holmgren in the mid 1970's to describe an "integrated, evolving system of perennial or self-perpetuating plant and animal species useful to man."

Permaculture



- Yogic Agriculture or "Sashwat Yoga Kheti"/ Gou Mata Kheti./ Vaishnav Kheti, Ahinsa farming, Adhvoot Shivanand farming, and rishi Krishi are the other names. This is a process that includes seed empowerment (through mediation), mind and heart development of farmer (through mediation) and integrated organic farming (through Cow products, crop rotation and integrated pest management).

Yogic Agriculture



- "Fukuoka's do-nothing approach to farming is not only revolutionary in terms of growing food, but it is also applicable to other aspects of living, (creativity, child-rearing, activism, career, etc.). He found ways that food could be grown in a non-polluting, sustainable manner. After a number of years, he had rebuilt the soil on his family farm and proved that he could equal or better the yields of the "petroleum farmers" with his no chemical, lazy man's way of natural farming.

The One-Straw Revolution



List and Address of National and Regional Organic Farming Centres with states of their jurisdiction

Director, National Centre of Organic Farming,
Sector 19, Hapur Road, Kamla Nehru Nagar, GHAZIABAD - 201 002 (UP).
0120-2764906, 2764212; Fax:0120-2764901
Web: <http://ncof.dacnet.nic.in> Email: nbdc@nic.in

Entire India

Regional Director, Regional Centre of Organic Farming,
Sector 19, Hapur Road, Kamla Nehru Nagar, GHAZIABAD - 201 002 (UP).
0120-2764212; Fax:0120-2764901
Web: <http://ncof.dacnet.nic.in> Email: rcofhq.gzb-agri@gov.in

Delhi, Rajasthan, Uttarakhand, and Uttar Pradesh (Except Districts Of Azamgarh, Ballia, Basti, Chandauli, Deoria, Faizabad, Ayodhya, Ghazipur & Gorakhpur).

Regional Director, Regional Centre of Organic Farming,
Kannamangala Cross, Whitefield – Hosekote Road, Kadugodi Post, BENGALURU-560067 (Karnataka).
080-28450503 Email: biofkk06@nic.in.

Karnataka, Kerala, Tamilnadu, Pondicherry and Lakshdweep

Regional Director, Regional Centre of Organic Farming,
GA-114, Niladri Vihar (Near KV-4),
PO Sailashree Vihar, BHUBANESHWAR-751007 (Orissa).
0674-2721281, Email: biofor04@nic.in

Orissa, West Bengal and Andman & Nicobar

Regional Director, Regional Centre of Organic Farming,
Kisan Bhawan, Sector 14, Panchkula-134 109 (Haryana).
0172-2971718, Email: biofhr05@nic.in

Haryana, Himachal Pradesh, Punjab, Jammu & Kashmir and Chandigarh (UT).

Regional Director, Regional Centre of Organic Farming,
Langol Road, Lamphelpat, IMPHAL-795 004 (Manipur).
0385-2413239 Email: biofmn01@nic.in

Assam, Arunachal Pradesh, Meghalaya, Mizoram, Manipur, Nagaland, Tripura and Sikkim

Regional Director, Regional Centre of Organic Farming,
67/1, Keshav Smriti, Lakshampur, Shatabdipuram, Behind Muskan Plaza, JABALPUR-482 002 (Madhya Pradesh).
0761-2971234, Email: biofmp06@nic.in

Madhya Pradesh and Chhattisgarh.

Regional Director, Regional Centre of Organic Farming,
Amravati Road, NH6, Village – Gondkhairi, Post – Wadi, Kalmeshwer, NAGPUR-440 023 (Maharashtra).
07118-297054, Email: biofmh10@nic.in

Maharashtra, Andhra Pradesh and Telengana

Regional Director, Regional Centre of Organic Farming,
Central Potato Research Station Campus, Sahaynagar, Jagdev Path, Patna-801 506 (Bihar).
0612-2225024, Email: rcof.pat-agri@gov.in

Bihar, Jharkhand and Eastern Uttar Pradesh (Azamgarh, Ballia, Basti, Chandauli, Deoria, Faizabad, Ayodhya, Ghazipur & Gorakhpur Districts)

Regional Director, Regional Centre of Organic Farming,
APIC, Podium Level Krishi Bhawan, Sector 10-A
Gandhinagar-382 010 (Gujrat).
079-23257465, Email : ad-gnagar@ncof.dacnet.nic.in

Gujrat, Goa, Daman & Diu, Dadra and Nagar Haveli

Toll Free Number : 1800-180-3049