

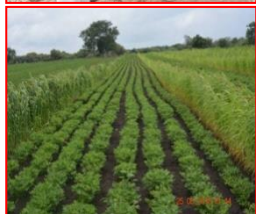
# SUCCESSFUL NATURAL FARMING IN DRYLAND AGRICULTURE



Farmer: Malleshappa Bisirotti  
Village: Rotigawada  
Taluk: Kundagol  
District: Dharwad  
State: Karnataka  
Contact number: 9945011754

## Challenges Faced

1. Initially faced water scarcity for preparation of liquid jeevamrutha preparation so motivated to prepare Solid Jeevamrutha (Ghanajeevamrutha) for nutrient management in crops.
2. Faced difficulty in preparation of Ghanajeevamrutha in large scale so modified in preparation of Ghanajeevamrutha.
3. Crop yield was reduced compared to conventional farming



## Practical Utility

- Ghanajeevamrutha is used as basal application and used directly along with the seeds @ 200 kg/acre during sowing and also as top-dressing @ 200 kg/acre.
- The Ghanajeevamrutha is also used for plant protection sprays
- Intercropping of millets with spreading ground nut

## Salient features

1. Cultivation of chilli by natural farming method from past 16 years in dry land
2. He started experimenting with the use of solid jeevamrutha (Ghanajeevamrutha) and succeeded in raising crops over last six years.
3. He devised his own design to make Ghanajeevamrutha powder through pressing and sieving.

## Description of Innovative Technology

1. He developed his own method of preparation of Ghanajeevamrutha.
2. He also collects dried shredded neem leaves and seeds and prepares neem leaf/seed extract by using Ghanajeevamrutha and used for spraying crops.
3. He maintained his own chilli, jowar, wheat and ground nut seeds by selecting uniform and good quality fruits and earheads

## Methodologies for transfer of technology

- ❖ Using social media (Whatsapp group)
- ❖ Field visits by other farmers to his farm.
- ❖ He has worked as CRP in natural farming scheme organized by Government of Karnataka.
- ❖ Organizing village level workshops
- ❖ Promotion of technology in farmers meeting as a resource person

## Cost of cultivation of Ground nut under natural and traditional farming practices

Parameters	Natural farming	Traditional Farming
Cost of Cultivation (Rs./ha)	48,161	71,347
Production (q/ha)	17.13	21.00
Gross returns (Rs./ha)	1,01,313	1,15,000
Net returns (Rs./ha)	53,152	43,653
BC ratio	2.12	1.61

## Impact

- i. After the natural farming earthworm count/activity is improved in soil
- ii. By adopting this method of natural farming, he has been able to achieve better crop productivity per acre of land under scanty rainfall conditions.
- iii. Soil infiltration capacity and porosity is improved
- iv. Cost of cultivation was reduced
- v. Good quality food grain produced.

## NATURAL FARMING: A PATH FOR SELF SUSTAINING LIFE



Farmer: Basavaraj Bealavatagi  
Village: Halyala  
Taluk: Hubballi  
District: Dharwad  
State: Karnataka  
Contact number: 7483425770

### Challenges Faced

1. Crop yield was reduced compared to conventional farming
2. Pest and disease problems in vegetable crops



### Practical Utility

- Natural farming is very good and every farmers need to adopt and save their costs and energy
- Role model for other Farmer to achieve success in Natural Farming.

### Salient features

1. In the year 2015 he attended Natural Farming training program conducted by Agricultural Department under ATMA project and he motivated himself and converted to Natural Farming for 10 acre land.
2. He is using all the formulations of Natural Farming such as Jeevamrutha, Ghanajeevamrutha, Beejamrutha, Dhashaparni, Neemastra, Brhamastra, Kadukullukashaya, Hulimajjige, Agniasthra etc.

### Description of Innovative Technology

- He is interested in experimenting the things and he always involve in experimenting new things.
- Along with natural farming formulation he uses Gokrupamruthajala which is made with fruits, fermented extract of Raw Egg and Lemon juice etc.

### Methodologies for transfer of technology

- ❖ Using social media (Whatsapp group)
- ❖ Field visits by other farmers to his farm
- ❖ He has worked as CRP in natural farming scheme organized by Government of Karnataka.
- ❖ Promotion of technology in farmers meeting as a resource person

### Cost of cultivation of Ground nut under natural and traditional farming practices

Parameters	Natural farming	Traditional Farming
Cost of Cultivation (Rs./ha)	56,326	89,997
Production (q/ha)	21.33	22.00
Gross returns (Rs./ha)	1,19,448	1,25,000
Net returns (Rs./ha)	63,122	35,004
BC ratio	2.12	1.39

### Impact

- i. Soil quality and earthworm count/activity is improved in soil
- ii. Infiltration capacity of the soil is improved
- iii. Cost of production is reduced to minimum
- iv. No external inputs purchase burden
- v. Net returns increased
- vi. In 2010 Honourable Chief Minister Mr. B. S. Yaduyurappa has visited his field and his home in order to appreciate him in the achievement of his work

## SELF EMPLOYMENT THROUGH AGRICULTURE: ACHIEVEMENT OF SHIRATTI FARMER



Farmer: Basavaraj Navi  
Village: Sugnahalli  
Taluk: Shiratti  
District: Gadag  
State: Karnataka  
Contact number: 7259968715

### Challenges Faced

- Reduced yield levels during initial period (2-3 years) of adoption till the soil fertility is improved.
- Pest and disease management could be taken as preventive in natural farming in the beginning face problems.
- Weed management is difficult task in natural farming



### Practical Utility

- Soil application of jeevamrutha improved the soil physical condition mainly structure and porosity, it is due to incorporated organic matter in to the soil as mulching and enhanced soil bio-life
- Natural Farming involves less cost of cultivation with high productivity and profitability

### Salient features

- In 2017 he attended training program on Natural Farming and he realized advantages of Natural Farming then he himself converted to Natural Farming practice.
- He himself becomes the agricultural scientist by adopting natural farming practices in his field.
- He grows Redgram, Cowpea, Millets, Groundnut, Maize, Greengram, Mulberry and some of the forest trees like Sandal, Diancha, Glyricidiaspp and some the horticultural crops such as Coconut, Custrud apple, Tamarind under natural farming

### Description of Innovative Technology

- He controls pest and diseases through Dhashaparni, Bhramhastra, Neemasthra and Hulimajige.
- He grows chemical free food grains and he is proud of that and he sends his products many organic customers to many parts of the country.

### Methodologies for transfer of technology

- Using social media (Whatsapp group)
- Field visits by other farmers to his farm
- He is also giving training and motivational talk to the many farmers' of country.
- He also made exhibition of organic products in his home.

### Cost of cultivation of ground nut and red gram inter cropping system cultivated under natural farming.

Parameters	Ground nut	Red gram
Cost of Cultivation (Rs./ha)	49,600	
Production (q/ha)	18	05
Gross returns (Rs./ha)	1,272,00	
Net returns (Rs./ha)	77,600	
BC ratio	2.56	

### Impact

- Application of jeevamrutha on the crop residues increases the rate of decomposition of crop residues which in turn enhanced the soil microbial activities and also improved the soil fertility status.
- Quality of the produce improved in natural farming
- Need not to purchase external inputs
- Minimize the cost of cultivation



# **SUCCESS STORY OF SHRI. CHANDRAKANTH SANGUR, A ZERO BUDGET NATURAL FARMER**



Farmer: ChnadrakanthSangur  
 Village: Sangur  
 Taluk: Haveri  
 District: Haveri  
 State: Karnataka  
 Contact number: 9945078458

## **Challenges Faced**

- i. Need extra efforts from farmers.
- ii. Yield is little low in the initial years but later it will compensate with low cost.
- iii. Need separate market for naturally grown crops and need premium prices.



## **Practical Utility**

- i. The natural farming method is economically viable even with reduced yield.
- Sangur has found that apart from saving costs, natural farming makes crops self-resistant to pest and diseases.

## **Salient features**

- He makes his own plant nutrients, as he calls him. And his claim to fame is that he hasn't brought a single bag of chemical fertilizers in the past 25 years.
- he is having 55 khilari breed cows in his farm. These were registered as Ghoshala and the Government is giving Rs. 17.5 /day/animal as an incentive to Ghoshala.
- He grows different millets under natural farming
- At present he formed group of farmers to grow millets naturally and he formed a Farmers Producers Company (FPC) in the name of Bhoosiri Millets Company. Now they have around 1200 millets growing farmers supplying millets to the company.

## **Description of Innovative Technology**

- He is giving free millets seeds to all the needy farmers and after getting crops
- Presently he is supplying their produces throughout India and getting better income out of that

## **Methodologies for transfer of technology**

- ❖ Using social media (Whatsapp group)
- ❖ Field visits by other farmers to his farm
- ❖ He is also giving training and motivational talk to the many farmers' of country.

## **Cost of cultivation of millets cultivated under natural farming practice**

Parameters	Foxtail millet	Barnyard millet	Brown top millet
Cost of Cultivation (Rs./ha)	31162	35347	33522
Production (q/ha)	18.00	17.00	20.00
Gross returns (Rs./ha)	57998	56600	58800
Net returns (Rs./ha)	26838	21253	25278
BC ratio	1.88	1.60	1.75

## **Impact**

- I. Cost of production is very less under natural farming.
- II. Quality of grains is very good and soil fertility also improved.
- III. Initially the yield levels are low Need not to purchase external inputs
- IV. Minimize the cost of cultivation

# SUCCESSFUL SUGARCANE CULTIVATION UNDER NATURAL FARMING



Farmer: **Shankaragouda Hadimani** Village: **Siddanabhavi**  
 Taluk: Belagavi  
 District: Belagavi  
 State: Karnataka  
 Contact number: 9663250335

## Challenges Faced

- Due Application of jeevamrutha root grub population in the sugarcane field is also increasing and causing damage to the crops
- Weed management is the biggest problem
- Reduced yield levels during initial period of adoption till the soil fertility is improved.
- Difficult to control Pest and diseases
- No better market facility's/platform for Natural produce



## Practical Utility

- The natural farming method is economically viable even with reduced yield.
- Pulses were cultivated as inter-crops along with sugarcane. Once the crops are harvested and sold, the leaves and stalks are used as mulching and green manure.

## Salient features

- Every year, he grows at least 405 tonnes of sugarcane from 9 acres of natural farming land.
- He has utilized the available resources on his farm land, with water drawn from a bore well and an open-well being diverted towards flood and sprinkler irrigation
- He grows different pulses as a intercrop with sugarcane under natural farming

## Description of Innovative Technology

- Planting of sugarcane with the treatment of beejamruta. Then every month he use to supply 400 litres of jeevamruta per acre through irrigation channel as a nutrition to the crop
- He used sugarcane trash as mulching material and he sown the pulses like soybean, cowpea, greengram, blackgram and onion, wheat in every alternate rows of sugarcane as nutrient supplementary crops

## Methodologies for transfer of technology

- Conducting field days
- Using social media (Whatsapp group)
- Field visits by other farmers to his farm
- He is also giving training and motivational talk to the many farmers' of country.

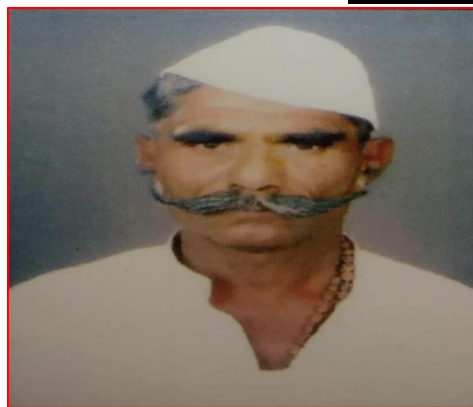
## Cost of cultivation of Sugarcane cultivated under natural and traditional farming practices

Parameters	Natural farming	Traditional Farming
Cost of Cultivation (Rs./ha)	1,14,950	1,50,393
Production (q/ha)	115	135
Gross returns (Rs./ha)	3,01,000	352500
Net returns (Rs./ha)	1,86,050	2,02,107
BC ratio	2.62	2.34

## Impact

- The profit earned from sugar cane is converted into annual deposit. "By opting for multi-and-inter crop cultivation, my hands are full throughout the year.
- Eliminated the use of synthetic fertilizers and pesticides.
- Persons involved in practicing natural farming will be always busy with his own farm work, so they feel healthy life rather than laggard/lethargy.

## SUCCESSFUL NATURAL FARMER



Farmer: **Tukaram Nayak**  
 Village: **Kanagala**  
 Taluk: **Hukkeri**  
 District: **Belagavi**  
 State: **Karnataka**  
 Contact number:

### Challenges Faced

- Weed management is the biggest problem
- Reduced yield levels during initial period of adoption till the soil fertility is improved.
- No better market facility's/platform for Natural produce



### Practical Utility

- The sugarcane yields about 55-60 tones from his land that is used for the preparation of organic jaggery. He is producing nearly 3000-3200 kg of organic jogger and selling at the rate of Rs.80 per kg.

### Salient features

- He has been continuously practicing Natural Farming since the last two decades. Because of his poor economy he was unable to invest much for inputs so he opted to go for natural farming
- He started using Ghanajeevamruta, vermicompost and liquid jeevamrutha during initial years of Natural Farming, and succeeded in raising crops over last twenty years
- He grows he sugarcane with soybean and spreading groundnut as intercrops under natural farming

### Description of Innovative Technology

- He prepared and sell 'GOUMUTRA ARKA' at the cost of Rs.200/litre which is prepared from steaming vapors' and collected in a vessel and it is prepared from local cow urine that is used as bioenhancer in ayurvedic medicine.
- He use to apply 400 kg of ghanajeevamrutha and 500 kg's of vermicompost and nearly eight tones of farm yard manure to the sugarcane crop

### Methodologies for transfer of technology

- ❖ Conducting field days
- ❖ Using social media (Whatsapp group)
- ❖ Field visits by other farmers to his farm
- ❖ He is also giving training and motivational talk to the many farmers' of country.

### Cost of cultivation of Sugarcane + Soybean+ ground nut inter cropping system under natural farming practice

Parameters	Sugarcane + Soybean+ ground nut		
Cost of Cultivation (Rs./ha)	1,31,794		
Production (/ha)	65t	20q	7.5q
Gross returns (Rs./ha)	2,93,600		
Net returns (Rs./ha)	1,61,806		
BC ratio	2.23		

### Impact

- Reduces the cost of cultivation
- **Improves in Soil fertility:** Earth worm population has been increased drastically in natural farming. Soil texture and structure and soil tilth were improved.



## **DIVERSIFICATION IN NATURAL FARMING**



Farmer: **Prashanth Hanumanavar**  
Village: **Pattiyal**  
Taluk: **Bailahongal**  
District: **Belagavi**  
State: **Karnataka**  
Contact number:

### **Challenges Faced**

- Yield was comparatively low under natural farming.
- Need continuous hard work and required more labour.
- Need to have livestock in their farm.
- Need separate marketing facilities for naturally produced crops.



### **Practical Utility**

- Sustainability in Agricultural production
- Diversification in farming system
- Income received from the intercrops that has been used for the purchase of jogger, labour wages, transportation and other expenses

### **Salient features**

- During 2014, he stopped application of fertilizers and pesticides and started Zero Budget Natural farming applying only Jeevamrutham and Ghanajeevamrutha.
- Every year, he grows around 900-950 tonnes of sugarcane from 20 acres, 160 -180 quintals of soybean from 20 acres, 24 quintals of Bengal gram from six acres and 60 quintals of sorghum from 10 acres of natural farming field

### **Description of Innovative Technology**

- Planting of sugarcane with the treatment of beejamrutha. Then every alternative month he use to supply 500 litres of jeevamrutha per acre through irrigation channel as a nutrition to the crop
- Sugarcane trash as mulching material and he sown the flower crops, vegetables and pulses like soybean, green gram, cowpea, black gram, onion and wheat in every alternate rows of sugarcane as nutrient supplementary crops

### **Methodologies for transfer of technology**

- ❖ Conducting field days
- ❖ Using social media (Whatsapp group)
- ❖ Field visits by other farmers to his farm

### **Cost of cultivation of Sugarcane cultivated under natural and traditional farming practices**

Parameters	Natural farming	Traditional Farming
Cost of Cultivation (Rs./ha)	1,11,200	1,49,193
Production (q/ha)	100	125
Gross returns (Rs./ha)	2,63,500	3,27,500
Net returns (Rs./ha)	1,52,300	1,78,307
BC ratio	2.37	2.20

### **Impact**

- Better quality food grains were produced.
- Production cost was very less if we do not purchase any inputs from outside.
- Stopped taking external credits from outside.
- Soil becomes very soft and water holding capacity of the soil improved.
- Positive net returns even in low market prices

# **NATURAL FARMING PRACTICES IN DRYLAND AGRICULTURE**



Farmer: Gurunath B Honnihalli  
 Village: Chakalabbi  
 Taluk: Kundagola  
 District: Dharwad  
 State: Karnataka  
 Contact number: 7353858527

## **Challenges Faced**

- Yield was reduced compared to conventional farming
- Labour requirement is high to prepare the formulation under ZBNF
- Water scarcity for preparation of jeevamrutha



## **Practical Utility**

- Natural farming technology is important to improve the status of farmers by reducing cost which are required for external inputs
- Cost of cultivation was reduced

## **Salient features**

- Well adopted natural farming practices followed in cotton, soybean, greengram and maize
- Promotes the importance of beejamrutha and Jeevamurtha
- Intercropping of greengram with cotton under natural farming

## **Description of Innovative Technology**

- He is using all the formulations of Natural Farming such as Jeevamrutha, Ghanajeevamrutha, Beejamrutha, Dhashaparni, Neemastra, Brhamastra, Kadukullukashaya, Hulimajjige, Agniasthra *etc.*
- He prepared Ghana jeevamurtha and applied through seed drill along with sowing

## **Methodologies for transfer of technology**

- ❖ Conducting field days
- ❖ Make small videos of new technologies and gives awareness through Whats app
- ❖ Field visits by other farmers to his farm

## **Cost of cultivation of ground nut cultivated under natural and traditional farming practices**

Parameters	Natural farming	Traditional Farming
Cost of Cultivation (Rs./ha)	46235	74089
Production (q/ha)	18	20
Gross returns (Rs./ha)	109800	11000
Net returns (Rs./ha)	63565	35911
BC ratio	2.37	1.48

## **Impact**

- After the natural farming earthworm count/activity is improved in soil
- Cost of production is reduced to minimum
- Natural farming is most suitable for dryland agriculture



