

# FARMERS DIARY

## Turmeric



# Organic Farmers Dairy as per NPOP

## Published by:

Deutsche Gesellschaft für  
Internationale Zusammenarbeit (GIZ) GmbH

Registered offices  
Bonn and Eschborn, Germany  
'Enhancement of Smallholder Spice Farmers'  
Capacities in Sustainable Farming' project

A2/18, Safdarjung Enclave,  
New Delhi - 110029, India  
T +91-11-4949 5353  
F +91-11-4949 5391  
E poonam.pande@giz.de  
W www.indo-germanbiodiversity.com

This developPPP.de project aims to strengthen the production  
of cardamom, cumin and turmeric in Rajasthan, Karnataka,  
Kerala and Tamil Nadu by increasing the capacities of spice  
farmers and making the production practices economically,  
socially and environmentally more sustainable.

As at Month 2022

Design  
MKM Creatives  
Delhi

Photo credits  
List of photographers in alphabetical order  
photographer: Dr Poonam Pande  
photographer: Pradnya Thombare

Text  
Poonam Pande  
Pradnya Thombare

On behalf of the  
German Federal Ministry for Economic Cooperation and  
Development (BMZ)

Farmers' Name: .....

Village : ..... At Post: .....

Taluka: ..... District: .....

State: : ..... Pin Code: .....

NPOP Code.....

(New Farmer)

Registration Status: 

Reg	C1	C2	C3	Organic
-----	----	----	----	---------

Date of Farmers entry into  
Internal Control System Registry:.....

FIG (Farmers Interest Group) or Sub Group of the which the  
farmer is member or Name of FPO  
(Farmer Producer Organisation) .....

.....

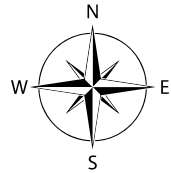
.....

.....

.....

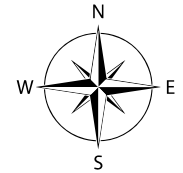
**1. Overview map with surrounding details  
(Road, River, Lake, Forest etc.)**

GPS Location of the Farm:



**2. Overview map with Farm Details (and Boundary details)**

GPS Location of the Farm:



### 3. Crop Duration: Kharif

**Year : 2022-23**

### Planting/Cropping Details

Cropping Period: From .....to.....

[illegible]

# Farm Management Practices

## 1 Nutrient Management

S. No.	Fertiliser Production e.g FYM, Vermicompost, Jeevamrut, Panchgavya	Unit	Prod/ date		Production (Qty)	Farm Application date	Farm Application (Qty)	Remark and cost of preparation (Rs)
1								
2								
3								
4								
5								

## Labour Cost for Nutrient Management

	Per day charges	No. of Male		No. of days	No. of Female	No. of days	Total cost (Rs)
Preparation							
Transport							
Application							

Fertilizers purchased from outside

Name of fertilizers	N	P	K		Bill details	Quantity (Kg)	Total cost (Rs)





2 Animal Husbandry Details

S. No.	Particulars	No	Details
1	Cow		
2	Buffalo		
3	Bullock		
4	Sheep		
5	Goat		
6	Poultry		
7	Apiculture		
8	Fisheries		



### 3 Sowing details

S. No.	Crop/Intercrop	Details		Details
1		Seeds purchased/ own seed		
		Seeds procurement address		
		Seeds procurement bills no		
		Seed treatment method and details		
2		Seeds purchased/own seeds		
		Seeds procurement address		
		Seeds procurement bills no		
		Seed treatment method and details		
		Others		

### Cost of sowing

S. No.	Details		Quantity (kg)	Rate (Rs/kg)	Total cost (Rs)
1.	Green manures seeds (if cultivated)				
2.	Seed main crop				
3.	Seed border crop (if planted)				
4.	Seed treatment material (biopesticides, organic growth promoters)				
5.	Others				



## Cost of mechanization and labour charges

Farm operation	Date and Remark	Machine Details			Labour requirements						Total cost (Rs)
		Time (hr)	Cost (Rs/hr)		Male			Female			
					No.	No. of days	Per day charges (Rs/day)	No.	No. of days	Per day charges (Rs/day)	
Ploughing											
Harrowing											
Sowing											
Others											

## 4 Weed Management

S. No.	Particulars		Details
1	Type of weeds observed (Local Name)		

### Cost of Weed Management

Farm operation	Date and Remark	Machine Details			Labour requirements						Total cost (Rs)
		Time (hr)	Cost (Rs/hr)		Male			Female			
					No.	No. of days	Per day charges (Rs/day)	No.	No. of days	Per day charges (Rs/day)	
Hoeing											
Hand weeding 1											
Inter Cultivation											
Hand weeding 2											
Hand weeding 3											

## 5 Water Management

S. No	Particulars	Details	Cost (Rs)
1.	Source of water		
2.	Method of water application		
3.	Time of water application		
4.	Motor (HP)		
5.	Total number of irrigations		
6.	Rainfed (Yes/No)		
7.	Others		



## 6 Pest and Disease Management

S. No	Particulars	Plot No.		Pest _1	Pest _2	Costs (Rs)
1.	Type of the pest (with detailed description)					
2.	Date of pest observation					
3.	Method used for pest control					
4.	Source of the bio pesticide, date?					
5.	Detail of bio pesticide used in quantity					
6.	Source of the bio pesticide/local / regional					
7.	Others					



Mechanical ways to reduce pest infestation

Particulars	No.		Details	Costs (Rs)
Yellow sticky traps				
Light traps				
Pheromone traps				
Cultivation of trap crops				
Others				



## 7 Harvest Management

Crop type / details	
Harvest date	
Details of harvest machinery/ equipment	
Source of machinery/equipment and cleanliness	
Others	



Cost of harvesting and post-harvest processing

Farm operation	Plot No.	Date	Machine Details			Labour requirements						Total cost (Rs)
			Time (hr)	Cost (Rs/hr)		Male			Female			
						No.	No. of days	Per day charges (Rs/day)	No.	No. of days	Per day charges (Rs/day)	
Cutting leaves												
Digging												

## 8 Storage details

S. No	Date	Particulars		Details
1.		Type of storage		
2.		During storage any insect/ pest infestation?		
3.		Any preservative against infestation?		
4.		Others		

## 9 Marketing and Sales Management of Produce

S. No	Type of the Material sold	Organic		Not sold/ storage	Name of the vendor/purchaser	Date
1.						
2.						
3.						



### 3. Crop Duration: Rabi

**Year : 2022-23**

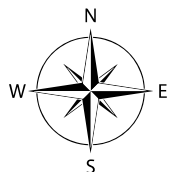
### Planting/Cropping Details

Cropping Period: From .....to.....

[illegible]

## 1. Overview map with Farm Details (and Boundary details)

GPS Location of the Farm:



# Farm Management Practices

## 1 Nutrient Management

S. No	Fertiliser Production e.g FYM, vermicompost, Jeevamrut, Panchgavya	Unit	Prod/ date		Production (Qty)	Farm Application date	Farm Application (Qty)	Remark and cost of preparation (Rs)
1.								
2.								
3.								
4.								
5.								

## Labour Cost for Nutrient Management

	Per day charges	No. of male		No. of days	No. of Female	No. of days	Total cost (Rs)
Preparation							
Transport							
Application							

## Fertilizers purchased from outside

Name of fertilizers	N	P		K	Bill details	Quantity (Kg)	Total cost (Rs)

## 2 Animal Husbandry details

S. No	Particulars	No.		Details
1.	Cow			
2.	Buffalo			
3.	Bullock			
4.	Sheep			
5.	Goat			
6.	Poultry			
7.	Apiculture			
8.	Fisheries			
	Others			



### 3 Sowing details

S. No	Crop/Intercrop	Details		Details
1.		Seeds purchased/ own seed		
2.		Seeds procurement address		
3.		Seeds procurement bills no		
4.		Seed treatment method and details		
5.		Seeds purchased/own seeds		
6.		Seeds procurement address		
7.		Seeds procurement bills no		
8.		Seed treatment method and details		
		Others		

### Cost of sowing

S. No.	Organic seeds	Quantity (kg)	Rate (Rs/kg)	Total cost (Rs)
1.	Green manures seeds (if cultivated)			
2.	Seed main crop			
3.	Seed border crop (if planted)			
4.	Seed treatment material (biopesticides, organic growth promoters)			
5.	Others			



## Cost of mechanization and labour charges

Farm operation	Date and Remark	Machine Details			Labour requirements						Total cost (Rs)
		Time (hr)	Cost (Rs/hr)		Male			Female			
					No.	No. of days	Per day charges (Rs/day)	No.	No. of days	Per day charges (Rs/day)	
Ploughing											
Harrowing											
Sowing											
Others											

## 4 Weed Management

S. No.	Particulars		Details
1	Type of weeds observed (Local Name)		

### Cost of Weed Management

Farm operation	Date and Remark	Machine Details			Labour requirements						Total cost (Rs)
		Time (hr)	Cost (Rs/hr)		Male			Female			
					No.	No. of days	Per day charges (Rs/day)	No.	No. of days	Per day charges (Rs/day)	
Hoeing											
Hand weeding 1											
Inter Cultivation											
Hand weeding 2											
Hand weeding 3											

## 5 Water Management

S. No	Particulars	Details	Cost (Rs)
1.	Source of water		
2.	Method of water application		
3.	Time of water application		
4.	Motor (HP)		
5.	Total number of irrigations		
6.	Rainfed (Yes/No)		
7.	Others		





## 6 Pest and Disease Management

S. No	Particulars	Plot No.		Pest _1	Pest _2	Costs (Rs)
8.	Type of the pest (with detailed description)					
9.	Date of pest observation					
10.	Method used for pest control					
11.	Source of the bio pesticide, date?					
12.	Detail of bio pesticide used in quantity					
13.	Source of the bio pesticide/local / regional					
14.	Others					

### Mechanical ways to reduce pest infestation

Particulars	No.		Details	Costs (Rs)
Yellow sticky traps				
Light traps				
Pheromone traps				
Cultivation of trap crops				
Others				

## 7 Harvest Management

Crop type / details					
Harvest date					
Details of harvest machinery/ equipment					
Source of machinery/equipment and cleanliness					
Others					

### Cost of harvesting and post-harvest processing

Farm operation	Plot No.	Date	Machine Details			Labour requirements						Total cost (Rs)
			Time (hr)	Cost (Rs/hr)		Male			Female			
						No.	No. of days	Per day charges (Rs/day)	No.	No. of days	Per day charges (Rs/day)	

## 8 Storage details

S. No	Date	Particulars		Details
1.		Type of storage		
2.		During storage any insect/ pest infestation?		
3.		Any preservative against infestation?		
4.		Others		

## 9 Marketing and Sales Management of Produce

S. No	Type of the Material sold	Organic		Not sold/ storage	Name of the vendor/purchaser	Date
1.						
2.						
3.						

## Contamination Control Records

S. No	Chances of Contamination	Source & Details	Time/ Date of Contamination Control		Contamination Management		Remarks
					Preventive	Control	
1.	Machinery						
2.	Water						
3.	Air						
4.	Neighbour						
5.	Drift Control/ Buffer Zone						
6.	Others						



# Internal Control System (ICS)

An Internal Control System (ICS) is part of a documented quality assurance system that allows an external certification body to delegate the periodic inspection of individual group members to an identified body or unit within the certified operator. This means that the third-party certification bodies only must inspect the well-functioning of the system, as well as perform a few spot-check re-inspections of individual smallholders.

Group certification is based on the concept of an internal Quality Management System comprising the following: -

- ▶ Implementation of the internal control system
- ▶ Internal standards
- ▶ Risk assessment

The following are minimum requirements for setting up an ICS for grower groups:

- ▶ Development of Internal Control System (ICS) manual containing policies and procedures
- ▶ Identification of farmers in the group
- ▶ Creation of awareness about Grower Group Certification
- ▶ Identification of qualified/experienced personnel for maintaining the Internal Control System
- ▶ Give necessary training in production and ICS development
- ▶ Implementation of the policies and procedures
- ▶ Review and improvement of the ICS document for maintaining a harmonized quality management system

## Structure of ICS

### ▶ ICS manager

ICS manager shall develop and implement the ICS and would be responsible to organize internal inspections, and coordinating between field staff, approval staff, and the accredited Certification Body (CB).

### ▶ Internal inspectors

The ICS shall nominate an adequate number of internal inspectors from their group and there shall be at least one internal inspector per 50-60 farmers for ensuring 100% inspection of all farmers in the group is carried out twice a year.

### ▶ Field officers

The field officer shall train the farmers by organizing field extension services.

### ▶ Growers

- Grower Groups are organized groups of farmers/producers who intend to produce organic products/engage in organic processes in accordance with the National Standards of Organic Production.
- The grower group shall consist of a minimum of 25 and maximum of 500 farmers.

## Procedures For Implementation Of Internal Control System

### 1. Registration of members

All members of the group will be legally registered under a single entity (name) with the address of its operations (location, taluka, village).

### 2. Documentation and maintenance of record

Each member of the grower group will be supplied with a docket in the local language which will contain the following:

- ▶ Document for internal standards.
- ▶ The internal standards shall be prepared in the local language by the ICS manager for the region of operations under the framework of National Programme for Organic Production (NPOP) standards.
- ▶ The internal standards would contain: -

- a) Definition of the production unit
- b) How to deal with part conversion
- c) Conversion period

# Components of Organic System Plan

- d) Maintenance of buffer zone
- e) Farm production norms for the entire production unit (e.g. seeds, nutrient management, pest management, soil management, approved inputs, prevention of drifts, livestock husbandry management)
- f) Harvest and post-harvest procedures
  - ▶ Farm Diary which should indicate all the crops being cultivated, use of inputs, harvested quantities etc.
  - ▶ Prevailing farming system and the package of practices available for the area.
  - ▶ Training programme schedule

1. Organic crop production units should be in the same geographical region and can be divided into groups/clusters.
2. Farmer of Interest Group (FIG) or Organic Group/clusters should grow the crops homogeneously
3. Care should be taken that the surrounding environment, wastewater discharge etc, should not contaminate the crop via air, groundwater, water etc.
4. No Genetic Modified (GMO) crop should be allowed to grow on the land.

## 5. Part Conversion

If the farmer in the group is taking the organic production in a certain part of the farm then they have to maintain a certain physical distance from the conventional farm. In this situation, there should be a buffer zone between two crops. Besides this, all the other aspects of harvest, purchase, seed processing, crop management, storage, and transportation should also be separated and recorded properly.

## 6. Conversion Period

This is a mandatory period of three years for all the farmers. The final decision depends upon the internal control system management agency. It is mandatory to provide all details to the certifying body as per the organic certification norms and the final decision is with the certifying body to certify the farm as per NPOP.

## 7. Farm production rule and seed production

- a) Farmers should use only organic seeds and seedlings. If organic seeds are not available, the local seeds without any chemical treatment should be used. It is mandatory to keep all the documents as proof.
- b) Those farmers practising organic farming for the last three years are eligible to obtain such seeds for farmers in organic farming systems. These farmers should trade the seedling material amongst themselves if they are not using any prohibited chemicals.
- c) For seed treatment farmers should use an all-natural process. e.g.: biological fertilizer, biopesticide, ash, etc.,
- d) Farmers should not use any genetically modified seeds.

## 8. Nutrient Management in the organic farm

- a) For nutrient management farmers should use decomposed farm waste within the same farm boundary.
- b) Intercropping and relay cropping should be adopted to maintain the nutrient balance of the crop.
- c) If the farm nutrient inputs are purchased from outside, their source, their inspection records, and certifying agency details should be checked before they are produced, and all details should be kept as a record for the CB.
- d) Soil Health Management is a very important aspect and all the inputs used for nutrient management of organic farms should be as per organic standard practices.

## 9. Insect and Pest Management

- a) For insect and pest management physical, biological and mechanical processes should be adopted.
- b) Farmers should practice preventive measures to avoid pest attacks.
  - ▶ Cultivation of trap crops, mechanical traps like light traps,

pheromone traps, and yellow sticky traps can be used to monitor the pest attack and reduce the level of infestation.

- ▶ Natural predators can be promoted by installing bird perches in the field.
- ▶ Enhancement of soil quality will enhance the health of the crop grown and minimise the susceptibility to pests and diseases.
- ▶ Farmers can use neem extracts and biopesticides for controlling the attack.
- ▶ Plant growth promoters should not be used in organic farms, instead the plants-based, biological products should be used.
- ▶ For internal inspection and certification of the farm, all the integrated pest management practices should be recorded properly with date and details.

## 10. Weed Management

- a) For weed management physical, biological and mechanical methods should be used.
- b) Weed should be used for composting or as fodder for animals.
- c) Chemical weedicide is prohibited in organic farms.

## 11. Drift Management

- a) There should be a buffer zone between the organic farm and conventional farm to reduce the possibility of contamination through wind, water, groundwater etc.
- b) Along with proper fencing, trees should be planted along the farm border to avoid contamination through the air.
- c) Proper drainage should be provided to avoid the effluent discharge from surrounding farms to avoid contamination through soil and subsurface water.

## 12. Post-Harvest Processing

- a) Organic and conventional farm should be harvested, processed and stored separately by all means.
- b) Machinery should be used separately and not be mixed for conventional and organic farms.
- c) For organic farms the machinery/equipment should be properly sanitised/ cleaned before use.
- d) Harvesting, processing and storage and packaging process should have the lot number mentioned and documented.
- e) For storage and packing, it is recommended to use natural and homely methods, e.g Neem leaves, broad leaves and ash, can be used.
- f) While processing the organic produce their original characteristics are not affected and their grade should not be disturbed.

**Dear Farmers Remember when you are going for organic farming practices there are certain do's and don'ts -**

### Do's

- ▶ On farm boundary beneficial trees as per agroclimatic region can be planted.
- ▶ For buffer crops, 5-6 lines of tall millets should be planted.
- ▶ Mixed cropping and intercropping should be encouraged.
- ▶ Use certified organic fertilisers.
- ▶ Use biological means for pesticides and insecticides.
- ▶ Can prepare biopesticides at the farm.
- ▶ Can use their own seeds treated with bioagents.
- ▶ 'Organic Spraying' should be labelled on the pumps.
- ▶ Machinery, tools and equipment have to be exclusively used for the organic program only.
- ▶ Irrigation pipes should be exclusive to the organic program.

### Don'ts

- X. Burning all trash on the farm.
- X. Using genetically modified seeds such as BT Cotton.
- X. Using monoculture pattern of cropping.
- X. Using agrochemicals like insecticide, pesticide and weedicide.
- X. Borrowing spray pumps from conventional farmers.
- X. Reusing any material from a conventional farm.
- X. Using chemical fertilisers.
- X. Using chemicals for seed processing.
- X. Mixing organic and conventional produce.
- X. Storing organic and conventional produce together.



## NOTES

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

## NOTES

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

[illegible][illegible]

## NOTES

[illegible]

## NOTES

This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

## NOTES

[illegible]

## NOTES

This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

## This image shows a single page from a notebook or ledger. It features a series of evenly spaced horizontal black lines across its entire width. The top edge of the page has a slightly irregular, torn appearance. There are no margins, text, or other markings on the page.

[illegible]



[illegible][illegible]

## NOTES

[illegible]

## NOTES

[illegible]

## NOTES

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

## NOTES

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

## NOTES

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

## NOTES

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

## NOTES

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

## NOTES

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---



## NOTES

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

## NOTES

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

[illegible][illegible]

## NOTES

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

## NOTES

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

## NOTES

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

## NOTES

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

## NOTES

[illegible]

## NOTES

[illegible]



## NOTES

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---



**Published by:**

Published by:  
Deutsche Gesellschaft für  
Internationale Zusammenarbeit (GIZ) GmbH

**Registered offices**

Bonn and Eschborn, Germany  
Friedrich-Ebert-Allee 36 + 40  
53113 Bonn, Germany  
T +49 228 44 60-0  
F +49 228 44 60-17 66  
E [info@giz.de](mailto:info@giz.de)  
I [www.giz.de](http://www.giz.de)

Dag-Hammarskjöld-Weg 1 – 5  
65760 Eschborn, Germany  
T +49 61 96 79-0  
F +49 61 96 79-11 1