

# ORGANIC TURMERIC



*All Rights Reserved. No parts of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior permission of AGRIHORTICO*

**© 2019 Agrihortico Digital Publishing**

# INDEX

1. Organic Turmeric: An Introduction	1
2. Growing Organic Turmeric	1
3. Varieties of Organic Turmeric	2
4. Weed Management	3
5. Pest and Disease Management	4
6. Harvesting and Yield	4

## **Organic Turmeric: An Introduction**

Scientific name of Turmeric is *Curcuma longa*. Turmeric, the ‘Indian saffron’ is one of the most important spice crops of the world. Its culinary and medicinal merit finds its use in drug, cosmetic and food industry. “Kum-Kum” or vermilion is a by-product of turmeric

### **Plant Description**

Turmeric is a native of South Asia, particularly India. It belongs to the family Zingiberaceae. It is an herbaceous penennial plant. India is the largest producer of turmeric in the world, followed by Thailand, Central America, Latin America, and Taiwan. India is also the leader of value added products of turmeric. The United Arab Emirates (UAE) is the biggest importer of Indian turmeric. Indian turmeric is in demand because of its high curcumin content

### **Growing Organic Turmeric: Climate and Soil**

Turmeric requires warm and humid conditions, temperature range of 20oC – 30oC and 1500mm rainfall or irrigated conditions for cultivation. Rich loamy soils with good drainage is considered the best for turmeric cultivation

### **Growing Organic Turmeric: Intercropping**

Intercropping of turmeric with mango, jack, litchi, coconut and areca nut are found to be beneficial for the crop. Castor and pigeon pea are sown to offer shade to the growing plants

### **Growing Organic Turmeric: Crop Rotation**

Turmeric of often used in rotation with a variety of crops including sugarcane, wheat, vegetables, onion, chili etc. It is also grown as a subsidiary to ginger or chili in some areas

## **Land Preparation**

An isolation area of 25-50 feet should be made separating organic and non-organic farming areas. Minimal tillage of the field is to be done. Beds of 15 cm height x 1 m width x convenient length have to be raised with bed-bed spacing of 50 cm. Solarization of beds is to be followed as a preventive measure

## **Planting Material**

Disease and pest free, healthy seed-rhizomes need to be selected. This should be obtained from organically certified sources. In the absence of an organic seed source, high yielding local varieties may be used. The rhizomes identified for sowing should contain both the mother rhizome and fingers. The fingers should be reduced to 5 cm length and mother rhizome should have at least 1 sound bud. The mother rhizome can be split into two parts and planted, provided each part contains 1 viable bud

## **Varieties of Organic Turmeric**

Varieties are developed considering the market preferences. The international market preference is for varieties with more than 5% curcumin content and lemon yellow, orange or orange yellow colored turmeric powder. Two of the most popular varieties for international market are 'Madras' and 'Alleppey', named respectively after their production centers. The Madras turmeric is preferred by the British and Middle-eastern markets while Alleppey turmeric is preferred by the United States. Some of the other popular commercial varieties are Roma, Suroma, Armour, Tekurpeta, Lokhandi etc

## **Growing Organic Turmeric: Planting**

Pits are prepared in the fields at the time of land preparation. Each pit is filled with 25g of neem cake powder mixed with soil, before planting of rhizomes. After planting of rhizomes, the pits can be covered with FYM mixed with *Trichoderma*

## **Growing Organic Turmeric: Mulching**

Mulching will help to enhance germination of seed-rhizomes, prevent soil erosion, conserve soil moisture and contribute to organic matter in soil. First mulching should be done at time of planting with 4-5t of green leaves per acre. It should be repeated on the 50th day after planting with 2t of green leaves per acre. Pouring cow slurry on the beds after mulching will help increase microbial activity in the soil and increase nutrient availability

## **Weed Management**

Schedule weeding on 60th, 120th and 150th days after sowing, based on weed growth. Proper drainage channels needs to be established and stagnation of water should be avoided at all costs

## **Growing Organic Turmeric: Manuring**

Turmeric is a demanding crop, requiring heavy manuring. A basal dose of FYM (2-3 t/acre) is recommended at time of planting rhizomes. Neem cake application (0.8 t/acre) is also appropriate. Application of FYM + *Trichoderma* + neem cake mixture (100 g/planting pit) at the time of planting is another alternative combination. Vermicompost or coir pith compost can also be used to supplement FYM availability



## **Pest Management**

In case of shoot borer incidence, infected shoots must be cut down and destroyed. Neem oil 5% spray once every 2 weeks is also recommended

## **Disease Management**

Leaf spot and leaf blotch diseases of turmeric can be controlled through restricted spray of Bordeaux mixture (1%). Trichoderma application to soil at the time of planting checks occurrence of rhizome rot. Dipping of seed-rhizome in 5% suspension of *Pseudomonas fluorescens*, 15 minutes before planting is beneficial as a preventive measure

## **Harvesting and Yield**

Turmeric will be ready for harvesting within 7-9 months of sowing, depending on variety. Generally, the rhizomes are hand-picked after ploughing the land. Otherwise, the clumps can also be lifted by using spades. The harvested rhizomes are cleared of mud and other extraneous matter and the mother rhizomes separated for use as seed-materials. The rhizomes are then send for curing processes of boiling, drying, polishing and coloring, using permitted ingredients. The average yield per acre is 8-10 tons of green turmeric



FOR FURTHER INFO...

*Visit Our Website at*

<https://agrihortico.com>

*Or*

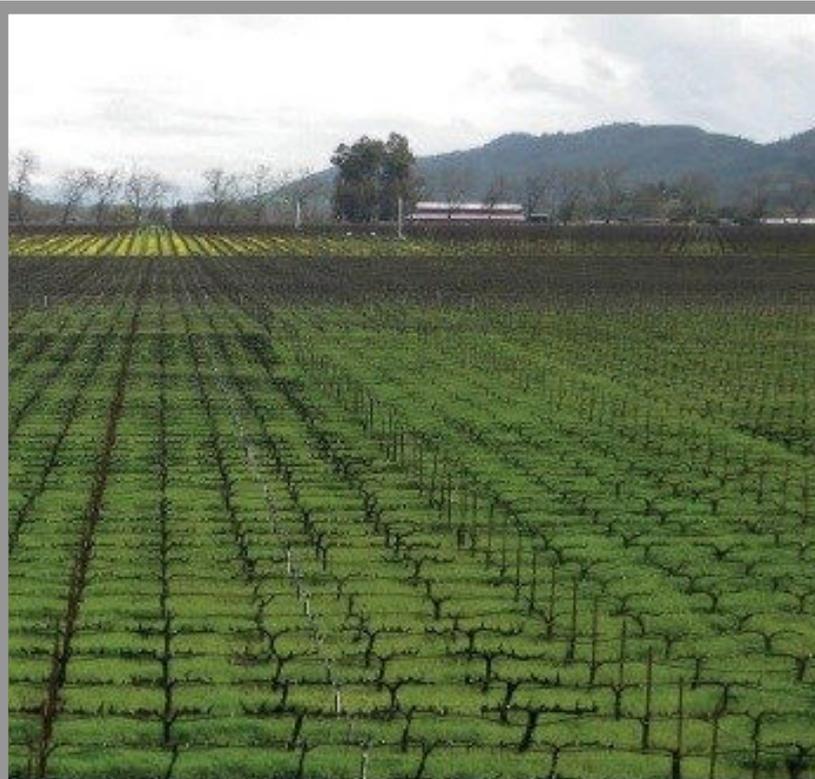
*Contact us at*

[info@agrihortico.com](mailto:info@agrihortico.com)

[agrihortico@gmail.com](mailto:agrihortico@gmail.com)

We have a book on  
**Organic Turmeric...**

To Purchase [Click Here](#)



**Organic Production of Black  
Pepper, Ginger and Turmeric**

**Gowri Vijayan**