



Sandalwood

	Khuba Soil Conditioner PER PLANT ಖೂಬಾ ಸೈಲ್ ಕಂಡಿಷನರ್ ಪ್ರತಿ ಸಸ್ಯಕ್ಕೆ	Khuba Soil Booster PER ACRE ಖೂಬಾ ಸೈಲ್ ಬೂಸ್ಟರ್ ಪ್ರತಿ ಎಕರೆಗೆ	Natural Horticulture Oil DRENCH OPTIONAL ತೋಟಗಾರಿಕೆ ಆಯಿಲ್ ಡ್ರೆಂಚ್ ಐಚ್ಛಿಕ	Growth Promoter DRENCH ಬೆಳವಣಿಗೆ ಪ್ರಚಾರಕ ಡ್ರೆಂಚ್
Year 1 to 3 ವರ್ಷ 1 ರಿಂದ 3	500 gms X 2 Times 500 ಗ್ರಾಂ X 2 ಬಾರಿ		-----	-----
Year 4 - JANUARY ವರ್ಷ 4 - ಜನವರಿ	1 kg	5 Kg	-----	-----
JUNE / ಜೂನ್	1 KG	5 Kg	-----	-----
TOTAL		2 Packets		
ಒಟ್ಟು		2 ಪ್ಯಾಕೆಟ್ಸ್		

Web site: <https://khuba.in/agriculture>

Kannada: <https://khuba-in.translate.goog/agriculture? x tr sl=lg& x tr tl=kn& x tr hl=en-US& x tr pto=wapp>

Furthermore, we recommend incorporating cow-based products such as "Jeevamruth" and "Gokripamruth" to further enhance the soil health. These products, derived from cow dung and cow urine, contain beneficial microorganisms and nutrients that contribute to the overall fertility and vitality of the soil. Applying "Jeevamruth" and "Gokripamruth" as organic fertilizers can improve soil structure, nutrient availability, and microbial activity, ultimately benefiting the growth and development.

We also recommend utilizing the uncultivated period by seeding your farms with various monocot, dicot, and oil seeds. You can sow three kilograms of each type of seed and an additional five kilograms of various different seeds. Allow these plants to grow and then mulch them back into the soil between the forty-fifth and fiftieth day, before flowering. This practice provides diversity and natural green manure to your farms, enriching the soil and promoting overall soil health. It also deters invasive plants, controls insect populations, and helps avoid disease.

By incorporating diverse companion plant species during the uncultivated period and utilizing cow-based products like "Jeevamruth" and "Gokripamruth," farmers can enhance soil fertility, promote biodiversity, and foster sustainable farming practices. You can also use SOLAR TRAP. These practices contribute to healthier crops, and improved overall farm productivity.

### **SANDALWOOD'S COMMON NAMES IN INDIA**

Some of the common names of Sandalwood in India are Chandan, Safed Chandan, ShriGandha, Santalum Album, Sandal & Sandalwood, Arishta Phalam, Aninditha, Sarpavasa, Bhadrashraya, Chandrakanta, Thailaparna, Malayaja, and Gandhasara.

### **Sandalwood's Local Names in India**

Gandhapu Chekka (Telugu), Chandan (Hindi), Raktacandanam (Malayalam), Cantana (Tamil), Candana (Marathi), Srigandhada (Kannada), Canana (Punjabi), Candana (Bengali), and Candana (Gujarati) are some of the local names of Sandalwood in India.

### **Varieties of Sandalwood Farming**

Although Indian and Australian Sandalwood Farming is mostly done, there are more than 15 varieties or cultivars of Sandalwood available throughout the world.

### **Climate Requirement for Sandalwood Farming**

There is a requirement for a hot and humid climate for growing Sandalwood as these will thrive best in this kind of climatic condition. The ideal temperature for the growth of Sandalwood is between 12 degrees Celsius to 35 degrees Celsius.

### **Soil Requirement for Growing Sandalwood**

Any well-drained soil that is well-versed with good organic matter can be used for growing Sandalwood. However, red sandy loam soils are best for the growth and yields of these trees. You are recommended for a soil test and fulfill all the nutrient requirements of the soil based on test results if you are planning to do commercial cultivation of Sandalwood. Sandalwood grows better in slightly alkaline soils that possess a pH range of 6.5 to 7.5.

### **Land Preparation for Sandalwood Cultivation**

You are required to serve the soil with a couple of ploughings for bringing it to the fine tilth stage and to make it weed-free. You can prepare the soil or beds in such a way that excess water would get drained out rapidly in case of heavy rains or floods.

### **Propagation in Sandalwood Farming**

Sandalwood might be propagated vegetatively with the help of tissue culture or employing seeds.

### **PLANTING & SPACING IN SANDALWOOD FARMING**

Seeds are usually collected from Sandalwood plants at the age of 15 to 20 years from August to March which is best for the growth and yields from these plants. Before sowing and nursery beds these collected plants should get dried up and well-treated.

Generally, old well-branched seedlings of 7 to 8 months that are of 30 to 35 cm height are raised on nursery beds which are used for the transplantation in the main field.

There are two types of seedbeds, for instance, "sunken" and "raised beds" are used for raising the sandalwood seedlings. During the preparation of soil or land, the pit's size of 45 \* 45 \* 45 should be dug.

The distance between each plant should be around 10 feet. You are required to ensure that before plantation there should not be stagnated water in pits. You may leave pits for getting exposed to the sun for a couple of days for drying up pits and for destroying any pests.

After 4 years of planting the Sandalwood, it would start flowering and you are required to ensure to remove the dried or diseased branches and weeds regularly for making the field free from weeds. One should also give preference to make use of Bio-fertilizers in Sandalwood Farming.

### **IRRIGATION IN SANDALWOOD FARMING**

One can grow Sandalwood crops all through the year on the condition that there is the availability of adequate facilities all through the year. When the plants are young there is a necessity of irrigation at an interval of 2 to 3 weeks particularly in hot and summer climatic conditions.

You can opt for drip irrigation in those areas where water sources are scarce. There is no need for irrigation to the Sandalwood plant in rainy seasons and you are required to ensure to drain out any excessive amount of water from the tree basin.

### **Fertilizers and Manures in Sandalwood Cultivation**

Any agriculture crop will best respond to organic and chemical fertilizers. However, there should not be any use of chemical fertilizers and pesticides in medicinal crops. One can make use of well-rotted farmyard manure (FYM), for instance, vermin compost, garden compost, cow dung, or any other manure made from green leaves. You can also prepare bio-pesticides from neem (kernel, seeds, and leaves), cow's urine, Dhatura, Chitrakmool, etc. to control many diseases and pests in Sandalwood Cultivation.

Growing sandalwood (*Santalum album*) is a long-term investment, and choosing the right companion plants can enhance soil health, deter pests, and improve the overall growth of sandalwood trees. Below are recommendations for companion plants, suitable crops to grow between sandalwood, and fast-growing border trees.

#### **Companion Plants for Sandalwood**

The number of plants per acre, for companion planting and intercropping in a sandalwood plantation.

#### **Numbers for Companion Plants and Intercrops**

##### **1. Pigeon Pea (*Cajanus cajan*)**

- Kannada : Togari Bele
- Hindi : Arhar
- Number per acre : 150–200 plants.
- Spacing : 10 x 10 feet.

##### **2. Castor (*Ricinus communis*)**

- Kannada : Haralu
- Hindi : Arandi

- Number per acre : 100–150 plants.
- Spacing : 12 x 12 feet.

### 3. Green Gram (*Vigna radiata*)

- Kannada : Hesaru Bele
- Hindi : Moong
- Number per acre : 500–600 plants.
- Spacing : 2 x 2 feet.

### 4. Moringa (*Moringa oleifera*)

- Kannada : Nugge
- Hindi : Sahjan
- Number per acre : 40–60 plants.
- Spacing : 20 x 20 feet.

## Numbers for Intercrops

### 1. Turmeric (*Curcuma longa*)

- Kannada : Arishina
- Hindi : Haldi
- Number per acre : 6,000–8,000 rhizomes.
- Spacing : 1.5 x 1.5 feet.

### 2. Ginger (*Zingiber officinale*)

- Kannada : Shunti
- Hindi : Adrak
- Number per acre : 5,000–6,000 rhizomes.
- Spacing : 1 x 1 feet.

## Numbers for Border Trees

### 1. Gliricidia (*Gliricidia sepium*)

- Kannada : Seema
- Hindi : Gliricidia
- Number per acre : 50–60 plants.
- Spacing : Along the border with 6–8 feet spacing.

### 2. Neem (*Azadirachta indica*)

- Kannada : Bevu
- Hindi : Neem
- Number per acre : 40–50 plants.
- Spacing : Along the border with 8–10 feet spacing.

### 3. Subabul (*Leucaena leucocephala*)

- Kannada : Suubaboolu
- Hindi : Subabul
- Number per acre : 50–60 plants.
- Spacing : Along the border with 6–8 feet spacing.

The spacing is designed to ensure that the plants do not compete excessively with sandalwood and that there is sufficient space for healthy growth.

ಶ್ರೀಗಂಧದ ತೋಟದಲ್ಲಿ ಒಡನಾಡಿ ನೆಡುವಿಕೆ ಮತ್ತು ಅಂತರ ಬೆಳೆಗಾಗಿ ಎಕರೆಗೆ ಗಿಡಗಳ ಸಂಖ್ಯೆ.

ಕಂಪ್ಯಾನಿಯನ್ ಸಸ್ಯಗಳು ಮತ್ತು ಅಂತರ ಬೆಳೆಗಳಿಗೆ ಸಂಖ್ಯೆಗಳು

1. ಪಾರಿವಾಳದ ಬಟಾಣಿ (ಕಾಜಾನಸ್ ಕಾಜನ್)

- ಕನ್ನಡ : ತೋಗರಿ ಬೇಳೆ
- ಹಿಂದಿ: ಅರ್ಹರ್
- ಪ್ರತಿ ಎಕರೆಗೆ ಸಂಖ್ಯೆ : 150-200 ಗಿಡಗಳು.
- ಅಂತರ : 10 x 10 ಅಡಿ.

2. ಕ್ಯಾಸ್ವರ್ (ರಿಸಿನಸ್ ಕಮ್ಯುನಿಸ್)

- ಕನ್ನಡ : ಹರಳು
- ಹಿಂದಿ: ಅರಂಡಿ
- ಪ್ರತಿ ಎಕರೆಗೆ ಸಂಖ್ಯೆ : 100-150 ಗಿಡಗಳು.
- ಅಂತರ : 12 x 12 ಅಡಿ.

3. ಹಸಿರು ಗ್ರಾಂ (ವಿಗ್ನಾ ವಿಕಿರಣ)

- ಕನ್ನಡ : ಹೆಸರು ಬೆಳೆ
- ಹಿಂದಿ: ಮೂಂಗ್
- ಪ್ರತಿ ಎಕರೆಗೆ ಸಂಖ್ಯೆ : 500-600 ಗಿಡಗಳು.
- ಅಂತರ : 2 x 2 ಅಡಿ.

4. ಮೊರಿಂಗಾ (ಮೊರಿಂಗಾ ಒಲಿಫೆರಾ)

- ಕನ್ನಡ : ನುಗ್ಗೆ
- ಹಿಂದಿ: ಸಹಜನ್
- ಪ್ರತಿ ಎಕರೆಗೆ ಸಂಖ್ಯೆ : 40-60 ಗಿಡಗಳು.
- ಅಂತರ: 20 x 20 ಅಡಿ.

ಅಂತರ ಬೆಳೆಗಳಿಗೆ ಸಂಖ್ಯೆಗಳು

1. ಅರಿಶಿನ (ಕರ್ಕುಮಾ ಲಾಂಗಾ)

- ಕನ್ನಡ : ಅರಿಶಿನ
- ಹಿಂದಿ: ಹಲ್ಲೆ
- ಪ್ರತಿ ಎಕರೆಗೆ ಸಂಖ್ಯೆ : 6,000-8,000 ರೈಜೋಮ್‌ಗಳು.
- ಅಂತರ : 1.5 x 1.5 ಅಡಿ.

2. ಶುಂಠಿ (ಜಿಂಗಿಬರ್ ಅಫಿಷಿನೇಲ್)

- ಕನ್ನಡ : ಶುಂಟೆ
- ಹಿಂದಿ: ಅದ್ರಾಕ್
- ಪ್ರತಿ ಎಕರೆಗೆ ಸಂಖ್ಯೆ : 5,000-6,000 ರೈಜೋಮ್‌ಗಳು.
- ಅಂತರ : 1 x 1 ಅಡಿ.

ಗಡಿ ಮರಗಳಿಗೆ ಸಂಖ್ಯೆಗಳು

1. ಗ್ಲಿರಿಸಿಡಿಯಾ (ಗ್ಲಿರಿಸಿಡಿಯಾ ಸೆಪಿಯಮ್)

- ಕನ್ನಡ : ಸೀಮಾ
- ಹಿಂದಿ: ಗ್ಲಿರಿಸಿಡಿಯಾ
- ಪ್ರತಿ ಎಕರೆಗೆ ಸಂಖ್ಯೆ : 50-60 ಗಿಡಗಳು.
- ಅಂತರ : 6-8 ಅಡಿ ಅಂತರವಿರುವ ಗಡಿಯುದ್ದಕ್ಕೂ.

## 2. ಬೇವು (ಅಜಾಡಿರಾಚ್ಯಾ ಇಂಡಿಕಾ)

- ಕನ್ನಡ : ಬೇವು
- ಹಿಂದಿ: ಬೇವು
- ಪ್ರತಿ ಎಕರೆಗೆ ಸಂಖ್ಯೆ : 40-50 ಗಿಡಗಳು.
- ಅಂತರ : 8-10 ಅಡಿ ಅಂತರವಿರುವ ಗಡಿಯುದ್ದಕ್ಕೂ.

## 3. ಸುಬಾಬುಲ್ (ಲೂಕೇನಾ ಲ್ಯುಕೋಸೆಫಾಲಾ)

- ಕನ್ನಡ : ಸುಬಾಬುಲು
- ಹಿಂದಿ: ಸುಬಾಬುಲ್
- ಪ್ರತಿ ಎಕರೆಗೆ ಸಂಖ್ಯೆ : 50-60 ಗಿಡಗಳು.
- ಅಂತರ : 6-8 ಅಡಿ ಅಂತರವಿರುವ ಗಡಿಯುದ್ದಕ್ಕೂ.

ಸಸ್ಯಗಳು ಶ್ರೀಗಂಧದ ಮರದೊಂದಿಗೆ ಅತಿಯಾಗಿ ಸ್ಪರ್ಧಿಸುವುದಿಲ್ಲ ಮತ್ತು ಆರೋಗ್ಯಕರ ಬೆಳವಣಿಗೆಗೆ ಸಾಕಷ್ಟು ಸ್ಥಳಾವಕಾಶವಿದೆ ಎಂದು ಖಚಿತಪಡಿಸಿಕೊಳ್ಳಲು ಅಂತರವನ್ನು ವಿನ್ಯಾಸಗೊಳಿಸಲಾಗಿದೆ.

चंदन के बागान में सहवर्ती रोपण और अंतर-फसल के लिए प्रति एकड़ पौधों की संख्या।

सहवर्ती पौधों और अंतर-फसलों के लिए संख्या

## 1. ಅರಹರ (ಕಾಜನಸ ಕಾಜನ)

- ಕನ್ನಡ: ತೋಗರಿ ಬೇಲೆ
- ಹಿಂದಿ: ಅರಹರ
- ಪ್ರತಿ ಎಕಡ್ ಸಂಖ್ಯಾ: 150-200 ಪೌಧೆ।
- ಅಂತರ: 10 x 10 ಫೀಟ್।

## 2. ಅರंडी (रिकिनस कम्युनिस)

- ಕನ್ನಡ: ಹರಾಲ್
- ಹಿಂದಿ: ಅರंडी
- ಪ್ರತಿ ಎಕಡ್ ಸಂಖ್ಯಾ: 100-150 ಪೌಧೆ।
- ಅಂತರ: 12 x 12 ಫೀಟ್।

## 3. हरा चना (विम्रा रेडिएटा)

- ಕನ್ನಡ: ಹೆಸರು ಬೇಲೆ
- ಹಿಂದಿ: ಮಂಗ
- ಪ್ರತಿ ಎಕಡ್ ಸಂಖ್ಯಾ: 500-600 ಪೌಧೆ।
- ಅಂತರ: 2 x 2 ಫೀಟ್।

## 4. मोरिंगा (मोरिंगा ओलीफेरा)

- ಕನ್ನಡ : ನುಗ್ಗೆ
- ಹಿಂದಿ : ಸಹಜನ
- ಪ್ರತಿ ಎಕಡ್ ಸಂಖ್ಯಾ : 40-60 ಪೌಧೆ।
- ಅಂತರ : 20 x 20 ಫೀಟ್।

अंतरफसलों के लिए संख्या

## 1. हल्दी (करकुमा लोंगा)

- ಕನ್ನಡ : ಅರಿಶಿನಾ
- ಹಿಂದಿ : ಹಲ್ದಿ

- प्रति एकड़ संख्या : 6,000–8,000 प्रकंद।
- अंतर : 1.5 x 1.5 फीट।

## 2. अदरक (जिंजिबर ऑफिसिनेल)

- कन्नड़ : शुंटी
- हिंदी : अदरक
- प्रति एकड़ संख्या : 5,000–6,000 प्रकंद।
- अंतर : 1 x 1 फीट।

## सीमा वृक्षों की संख्या

### 1. ग्लिरिसिडिया (ग्लिरिसिडिया सेपियम)

- कन्नड़ : सीमा
- हिंदी : ग्लिरिसिडिया
- प्रति एकड़ संख्या : 50–60 पौधे।
- अंतर : सीमा के साथ 6–8 फीट की दूरी पर।

### 2. नीम (अजादिराच्चा इंडिका)

- कन्नड़ : बेवु
- हिंदी : नीम
- प्रति एकड़ संख्या : 40–50 पौधे।
- अंतर : सीमा के साथ 8–10 फीट की दूरी पर।

### 3. सुबाबुल (ल्यूकेना ल्यूकोसेफाला)

- कन्नड़ : सुबाबूलू
- हिंदी : सुबाबुल
- प्रति एकड़ संख्या : 50–60 पौधे।
- अंतर : सीमा के साथ 6–8 फीट की दूरी पर।

अंतराल इस प्रकार बनाया गया है कि यह सुनिश्चित हो सके कि पौधे चंदन के साथ अत्यधिक प्रतिस्पर्धा न करें तथा स्वस्थ विकास के लिए पर्याप्त स्थान हो।