

Cultivation of OIL PALM



DIRECTORATE OF AGRICULTURE

GOVERNMENT OF GOA
TONCA, CARANZALEM-GOA

OIL PALM is the highest oil producer among the perennial oil yielding crops and produces two distinct oils i.e. Palm Oil (extracted from mesocarp) and Palm Kernel Oil (from kernel).

WHY TO CULTIVATE OIL PALM?

- Provides highest edible oil (4-6 tones per hectare per year) compared to other oil yielding crops.
- Gives assured income (monthly 3-4 times) throughout the year for the period of about 35 years from 4th year onwards.
- Gives high profits of Rs. 35,000/- to Rs. 45,000/- per hectare from 8th year onwards.
- No robbery of oil palm fruits.
- Palm oil is rich in vitamin A and vitamin E.
- It is used in the manufacture of biscuits, ice-creams, soaps, detergents, shampoos and also as a frying fat.
- Palm Kernel oil has a variety of industrial uses.
- Assured buy-back of guarantee for fruits.
- Fruits are collected from the collection centers in the village.

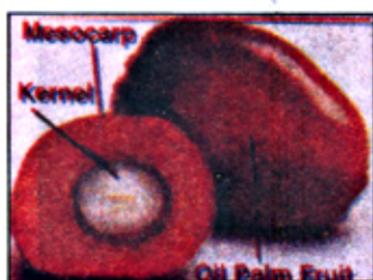
HOW TO CULTIVATE:

Soils : Best suited soils are moist, well drained, deep loamy alluvial soils, rich in organic matter with good water permeability. At least one meter depth of soil is required.

Sunlight : Bright sunlight for at least 5 hrs. per day.

Variety : Tenera is the ruling hybrid grown all over the world.

It has a thin shell, medium to high mesocarp content and high oil content.

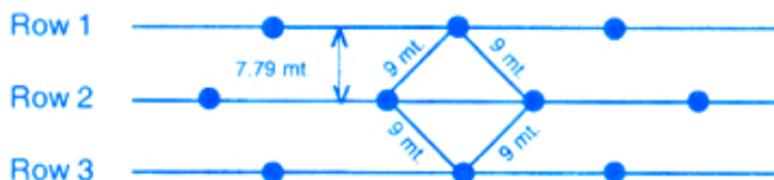


Planting season : Planting can be done in any season.

Seedlings : 10-14 months old healthy seedlings with 1-1.3 mt height from base and 13 functional leaves with good girth at collar are used for planting. Seedlings upto 24 months age can also be used.

PLANTING

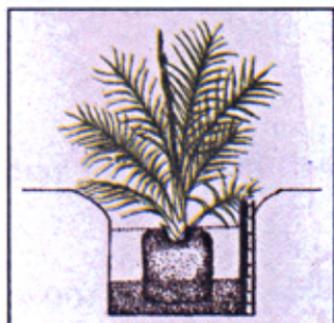
Spacing : 9m x 9m x 9m (Triangular planting)



Pit size : 60 cm width x 60 cm breadth x 60 cm depth

Planting method :

- Dig the pits prior to planting and allow to season.
- Transport quality seedlings to the planting site only at the time of planting.
- Before planting fill up 1/3rd of the pit with top soil mixed with organic matter.
- Apply 250 gm Rock Phosphate or 250 gm of DAP per pit and mix it thoroughly.
- Remove the bag by making a longitudinal cut and put the seedling in the center of the pit along with root ball.
- Fill the pit with top soil from around the pit and press firmly.
- Too deep planting could delay yields and shallow planting could lead to poor development of the root system.



- Take care to see that the soil does not get accumulated at the crown region, which may lead to rotting of crown.
- In case of low lying soils planting should be done in raised mounds to avoid water logging and poor aeration.
- Immediately after planting form basin and give copious irrigation.

IRRIGATION :

Oil palm requires plenty of irrigation. **Do not grow oil palm if assured and adequate irrigation facility is not available.**

Insufficient irrigation will reduce rate of leaf production, affects sex ratio, and results in inflorescence abortion and yields reduction.

QUANTITY OF WATER :

For grown up yielding palm of 3 years age and above a minimum of 150 litres of water per day is a must.

FERTILIZER :

Oil palm is a gross feeder and demands a balanced and adequate supply of nutrients for growth and yield.

Age of the Palm	Nutrients (g/palm/year)			
	N	P ₂ O ₅	K ₂ O	MgSO ₄
I Year	400	200	400	125
II Year	800	400	800	250
III Year onwards	1200	600	1200	500

DONT'S :

- Do not harvest pre-mature bunch.
- Do not harvest over riped bunch.
- Do not spray water on the harvested bunch.
- Do not leave more stalk length.
- Do not dirt the bunches with soil.
- Do not store the harvested bunches.
- Do not harvest empty bunch.
- Do not harvest rotten bunch.
- Do not harvest pest and disease affected bunch.
- Do not harvest dried bunch.

YIELD :

Average yield of 15 tons of fresh fruit bunches (FFB's) per year can be expected from one hectare yielding plantation. Under very good management the yield could be 25-30 tons per year per hac.

GOVERNMENT ASSISTANCE :

Government provide following assistance for oil palm cultivation.

AREA EXPANSION AND MAINTENANCE :

1st year	— 75% subsidy on seedlings (Max)	— Rs. 5,400/-
1st year	— Maintenance subsidy	— Rs. 4,600/-
2nd year	— Maintenance subsidy	— Rs. 3,300/-
3rd year	— Maintenance subsidy	— Rs. 3,500/-
4th year	— Maintenance subsidy	— Rs. 4,100/-
	Total Assistance	— Rs. 20,900/-

DRIP IRRIGATION :

- (a) For SF, MF, SC, ST and Women Farmers - 50%, maximum upto Rs. 8,600/- per hac.
- (b) For General Farmers - 35% subsidy, maximum upto Rs. 6,000/- per hac.

**FOR TECHNICAL GUIDANCE AND FURTHER DETAILS
PLEASE CONTACT**

The Zonal Agriculture Office of your Taluka

Pernem	— 2291291	Mapusa	— 2262368
Margao	— 2715005	Bicholim	— 2362128
Tiswadi	— 2285329	Quepem	— 2662116
Valpoi	— 2374246	Ponda	— 2312119
Sanguem	— 2604253	Canacona	— 2643066
Sameti - Old Goa	— 2285325	KVK South Goa	— 270420

Dial Toll Free Kisan Call Centre No. 1551 (Time 6.00 to 10.00 p.m.)

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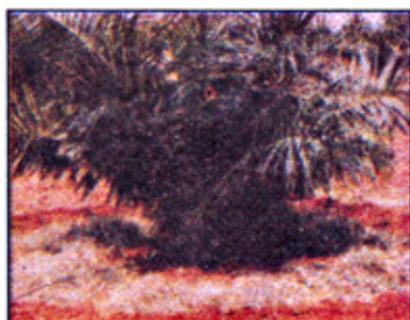
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MULCHING :



- Mulching of Oil Palm basins is essential to conserve moisture as well as to control weed.
- It also maintains soil temperature, add organic matter and nutrients mainly potassium, improves physical and biological properties of soil.

- Mulching can be done with dried leaves, coconut husk, male flowers, etc.

FLOWERING :

- Oil Palm comes to flowering 14-18 months after planting.
- It produces both male and female flowers separately on the same palm. (monoecious)



ABLATION :

Remove male and female flowers produced in early stages of plantation upto 2 $\frac{1}{2}$ to 3 years of age to enable the plant to gain adequate stem growth, vigour and develop adequate root system.

POLLINATION :

Oil Palm is a highly cross pollinated crop. Release of weevil/insect Elaeidobius Kameronicus after 2 $\frac{1}{2}$ years of planting helps in good pollination and fruit set.



HARVESTING :

- When the bunch is matured and ready for harvesting.
 - a) fruits in the bunch turn yellowish orange.
 - b) 5-10 fruits from each bunch drop on their own.
 - c) when pressed hard with the fingers orange coloured oil exudates from the fruits.
- Harvesting should be done at 10-15 days interval. During rainy season harvesting should be done at closer interval of 7-8 days as ripening is hastened after hot summer.

- iv. Excessively wet waste should be avoided or earthworms do not survive in soaking garbage.

Vermicomposting can also be done on a larger scale in lateritic stone lined cement plastered pits with P. C. C. floor of size 1mt x 1mt x 5 mt where farm waste crop residue animal waste etc. generated, can be used for vermicomposting.

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