

## TEN-YEAR ESTIMATED COST & RETURN ANALYSIS OF A ONE-HECTARE MANGOSTEEN ORCHARD.

	COST AND RETURN PER HECTARE PER YEAR (P)									
	1	2	3	4	5	6	7	8	9	10
Yield (kgs)	-	-	-	-	-	-	8,500	16,800	25,100	33,400
Gross Return (P)	-	-	-	-	-	-	255,000	504,000	753,000	1,002,000
Cumulative Gross Return	-	-	-	-	-	-	255,000	759,000	1,512,000	2,514,000
Production Cost (P)										
A. Establishment	28,448	-	-	-	-	-	-	-	-	-
B. Care & Maintenance	7,895	10,070	12,122	12,980	13,115	17,005	16,365	19,198	26,589	31,638
Total Production Cost (P)	36,343	10,070	12,122	12,980	13,115	17,005	16,365	19,198	26,589	31,638
Cumulative Production Cost	36,343	46,413	58,535	71,515	84,630	101,635	118,000	137,198	163,757	195,425
Net Return (P)	(36,343)	(10,070)	(12,122)	(12,980)	(13,115)	(17,005)	238,635	484,802	726,411	970,362
Cumulative Net Return	(36,343)	(46,413)	(58,535)	(71,515)	(84,630)	(101,635)	137,000	621,802	1,348,213	2,318,575

### Assumptions:

Yield Estimate:  $Y = 83(x) - 496$   
 Population Density : 100 trees per hectare  
 Farm Gate of Fruits: P30.00/kg  
 Contract Buyers shoulder the harvesting expenses.

### Disclaimer

Trade names cited in this publication are used solely for the purpose of providing specific information and do not endorse product names nor imply criticism of similar ones not mentioned. The recommended practices or procedures are based on research and the best information available.

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Produced by:



# DIS

## Technoguide Series

A publication of the Davao National Crop Research and Development Center Information Service (DIS)

No. 02-03

Series 2003

# Mangosteen Production



Mangosteen thrives best in deep, slightly acidic soil with high organic matter. Soils with good aeration & drainage are also suitable. The tree is slow growing and favors rainy climate with few seasonal variation in rainfall & temperature.

## VARIETY

The seed of mangosteen is apomictic and the plant that develops from it carries the same characteristics of the mother plant which explains the existence of only one variety.



## PREPARATION OF PLANTING MATERIALS

1. Extract seeds from fully ripe fruits. Seeds of more than one gram are to be selected for good germination.
2. Newly extracted seeds must be sown right away to obtain high percent germination.
3. Mixture of fine sand, compost and garden soil in equal proportions or using only coir dust is a preferred germination medium.
4. Seedlings are pricked unto the polyethylene bags using same mixture as germination media while the cotyledons are still attached to the seedlings.
5. Water the seedlings regularly after pricking.
6. Seedlings are ready for field planting in 24-36 months to minimize maintenance expense in the field as young seedlings require utmost care.

## LAND PREPARATION

1. Clear/Underbrush and remove all stumps.
2. Plow and harrow to loosen the soil.
3. Plant temporary shade (cacao, coffee, banana and other perennial crops) six months to one year ahead.

## PLANTING

1. Remove the plastic bag and plant the seedling an inch from the original soil line without breaking the ball of soil.
2. Cover the hole with top soil and press gently.
3. Apply as basal 50 grams (5 tbsp) of complete fertilizer (14-14-14) or based on soil analysis and cover with thin layer of top soil.
4. Stake at a distance of 8-10 meters between hills and between rows. Prepare holes, 30 cm in diameter at a depth of 30 cm. It can also be planted 8 x 8 meters or 10 x 10 meters using square or quincunx planting.
5. Replant dead plants the soonest to acquire uniform tree size.

## MAINTENANCE

1. Ringweed every 3 months.
2. Intercrop with leguminous plants.

### Fertilization Schedule

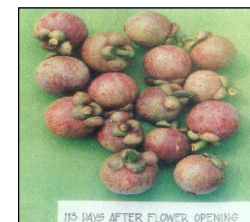
<i>Plant Age/ Stage</i>	<i>Kind of Fertilizer</i>	<i>Rate/Plant</i>
1. Vegetative Stage (2 years)	Nitrogenous/ Foliar Fertilizer	1 kg/tree/yr
3-6 years		add 100 g/tree/ year
2. Bearing Stage (6-7 years)	Complete Fertilizer (14-14-14)	7 kg/tree/yr

The rate increases as the size of the tree increases. Make the necessary changes should soil analysis require.

## HARVESTING

1. Harvest the fruits when they are fully ripe (113 days) or when pericarp is greenish brown.

2. Pick the fruit by hand with pedicel attached to the fruit, and/or use bamboo poles with hook and net at the end for taller trees.
3. After harvest, the fruit should be handled and packed with care for longer storage life.



## INSECT PESTS, DISEASES AND THEIR CONTROL

<i>Insect Pests</i>	<i>Parts of the Plant Attacked</i>	<i>Control Measures</i>
1. Thrips	Flushes, flowers and fruits	Spray Perfection, Rogor or Decis
2. Tussock Caterpillar	Flushes, leaves	Spray Sevin, Malathion, Decis
3. Mites	Flushes, fruits	Spray Sevin, Malathion, Dicarzol or Acrezid
4. Mealy bugs	Flushes, fruits	Spray Sevin, Decis, Malathion
<b><i>Diseases</i></b>		
1. Sooty Mold	Young leaves	Spray with common fungicides
2. Anthracnose	Leaves	Spray with common fungicides
3. Bacterial Leaf Sheath	Leaves	Spray with common fungicides