



# FRUIT CROPS

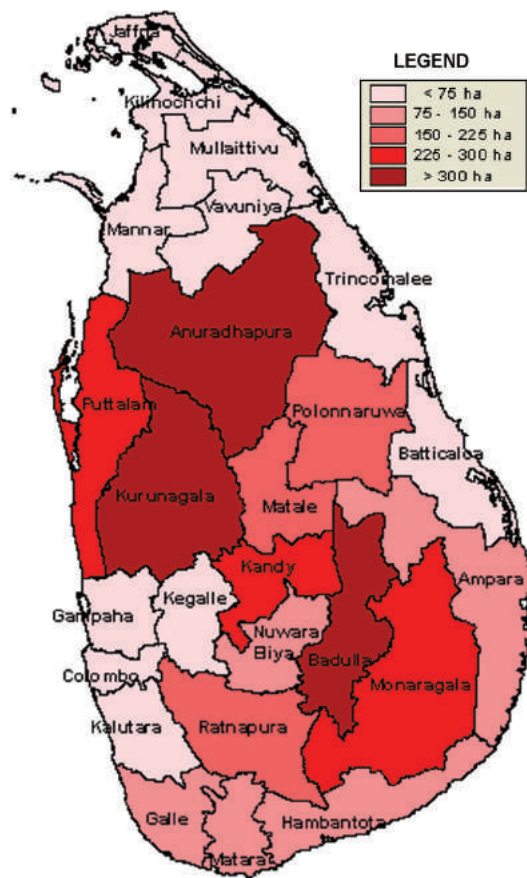




# ORANGE

(*Citrus sinensis*)

**Cultivated Areas of Orange**



**Uses :** Fruits are high in vitamin C. either ripen fruits are used fresh or used for preparation of jam, cordial and confectioneries



**Ecological requirements :**

Temperature : 22-32C<sup>0</sup>  
 Rainfall : 1000-1500mm/year  
 pH : 5.5-7.5  
 Soil : Sandy loams or laterite soils

**Suitable Districts :** Monaragala, Badulla, Matale, Jaffna, Puttalam, Anuradhapura, Ratnapura

**Recommended varieties & potential yield :**

Bibile sweet  
 Bibile seedless } 200 fruits/plant  
 Arogya

**Spacing :** 4 x 4.5m (500 plants/ha)

**Planting season :** October, November

**Availability :** March - June

**Nutritive values:** (Per 100g edible portion)

Moisture	87.6g
Energy	48kcal
Protein	0.7g
Fat	0.2g
Carbohydrates	10.9g
Calcium	26mg
Phosphorus	20mg
Iron	20mg
Carotene	1104mg
Vitamin C	30mg

**Crop - Orange (Variety : Bibile Sweet)**

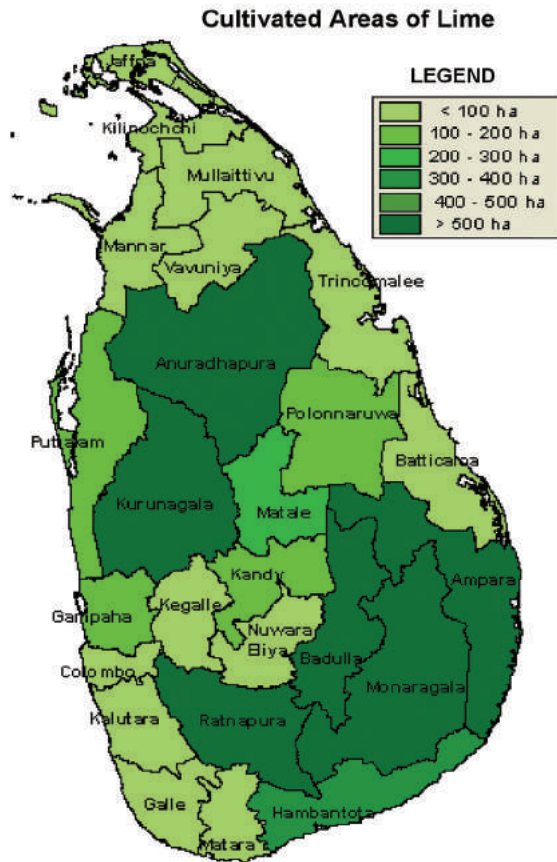
**District - Monaragala**

Operation	Input		Crop Establishment			Crop Maintenance -Total cost (Rs/ha)									
	Qty/ha	Cost Rs/ha	Power Cost Rs/ha	Mds/ha	Labour Cost Rs/ha	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year	5 <sup>th</sup> year	6 <sup>th</sup> year	7 <sup>th</sup> year	8 <sup>th</sup> year	9 <sup>th</sup> -15 <sup>th</sup> year	
Fencing				100	70000	70000									
Poles	140	63000				63000									
Barbed wire (kg)	250	48000				48000									
Nails (kg)	10	3250				3250									
Land preparation (4WT)			12500	16	11200	23700									
Planting (No.of plants)*	562	89920		25	17500	107420									
Fertilizer application															
NPK (kg)**	531	12746		6	4800	17546	18153	21795	23009	23009	35755	36362	40004	280026	
Lime (kg)***	281	1517				1517									
Compost (kg)	5620	16860		10	7000	23860	25546	27401	29441	31685	34153	36869	36869	258083	
Mulching				10	7000	7000	70000	7000	7000						
Irrigation		400000	18288	25	17500	435788	35788	35788	35788	35788	35788	35788	35788	250516	
Manual weeding				20	14000	14000	14000	14000	14000	14000	14000	14000	14000	98000	
Pest & disease control		13700		5	3500	17200	17200	17200	17200	17200	17200	17200	17200	120400	
Pruning				10	7000	7000	7000	7000	14000	14000	16100	16100	16100	112700	
Watching									14000	14000	14000	14000	14000	98000	
Harvesting									5600	8400	14000	14000	14000	98000	
Land rent		12500				12500	12500	12500	12500	12500	12500	12500	12500	87500	
Total labour (Mds)				227			86	86	124	118	129	129	129	903	
<b>Total cost ( Rs)</b>		<b>661494</b>	<b>25000</b>		<b>159500</b>	<b>851782</b>	<b>137187</b>	<b>142683</b>	<b>172537</b>	<b>170582</b>	<b>193496</b>	<b>196818</b>	<b>200461</b>	<b>1403225</b>	
Production (fruits/ha)									28100	56200	78680	81490	81490	570430	
Gross income (Rs/ha)									421500	843000	1180200	1222350	1222350	8556450	
Present value of cost (Rs)		1893058													
Present value of benefit (Rs)		6796750		*Budded plants										*** Apply only pH <5	
Net Present Value (Rs)		4903692													
Benefit Cost Ratio		3.59		**NPK	- 1 <sup>st</sup> year										
<b>Related Information</b>				Urea	- 214 kg										
Discount rate		0.11		TSP	- 259 kg										
Wage rate (Rs/day)		700		MOP	- 59 kg										
Average yield (kg/ha)		180													
Average price (Rs / kg)		15													
<b>Life span:</b> Agrowell		20 years													
Depth - 20' Diameter - 30'															
Water pump (diesel)		15 years													

# LIME

(*Citrus aurantifolia*)

**Uses :** Juice of the fruit is extensively used for flavouring foods. The fruit is often salted, dried in the sun and preserved in its own juice as a pickle.



## Ecological requirements :

Temperature : 22-32C<sup>0</sup>  
 Rainfall : 1000-1500mm/year  
 pH : 5.5-7.5  
 Soil : Sandy loams or laterite soils

**Suitable Districts :** Monaragala, Badulla, Puttalam, Anuradhapura

## Recommended varieties & potential yield :

Local cultivar (fruits/ha) 30500

**Spacing :** 15 x 23m (700 plants/ha)

**Planting season :** September, October

**Availability :** February, April

## Nutritive values: (Per 100g edible portion)

Moisture	84.6g
Energy	59kcal
Protein	1.5g
Fat	1.0g
Carbohydrates	10.9g
Calcium	90mg
Phosphorus	20mg
Iron	0.3mg
Carotene	15mcg
Thiamine	20mcg
Riboflavin	30mcg
Niacin	0.1mcg
Vitamin C	63mg

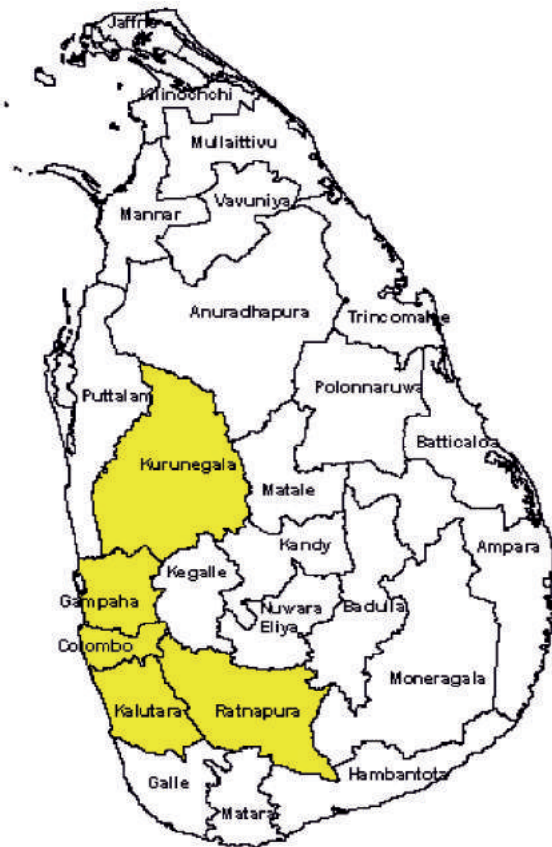
**Crop - Lime**  
**District - Monaragala**

Operation	Crop Establishment					Crop Maintenance -Total cost (Rs/ha)						
	Input Qty/ha	Cost Rs/ha	Power Cost Rs/ha	Labour Mds/ha	Cost Rs/ha	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year	5 <sup>th</sup> year	6 <sup>th</sup> year	7 <sup>th</sup> - 15 <sup>th</sup> year
Fencing				100	70000	70000						
Poles	140	63000				63000						
Barbed wire (kg)	250	48000				48000						
Nails (kg)	10	3250				3250						
Land preparation (4WT)			12500	16	11200	23700						
Planting (No.of plants)*	700	21000		25	17500	38500						
Fertilizer application												
NPK (kg)**	447	10735		8	5600	16335	16486	20418	24349	27776	28280	254520
Compost (kg)	7000	21000		10	7000	28000	30100	32410	34951	37746	40821	367389
Mulching				10	7000	7000						
Irrigation		400000	22860	30	21000	443860	43860	43860	43860	43860	43860	394740
Manual weeding				25	17500	17500	17500	17500	17500	17500	17500	157500
Pest & disease control		13700		6	4200	17900	17900	17900	17900	17900	17900	161100
Harvesting								35000	49000	63000	77000	693000
Land rent		12500				12500	12500	12500	12500	12500	125000	112500
Total labour (Mds)				230			79	129	149	169	189	1701
<b>Total cost ( Rs)</b>		<b>593185</b>	<b>35360</b>		<b>161000</b>	<b>789545</b>	<b>138346</b>	<b>179588</b>	<b>200060</b>	<b>220282</b>	<b>237861</b>	<b>2140749</b>
Yield (kg/ha)								5600	9800	14000	21000	189000
Gross income (Rs/ha)								280000	490000	700000	1050000	9450000
Present value of cost (Rs)		2048730										
Present value of benefit (Rs)		4612649										
Net Present Value (Rs)		2563919										
Benefit Cost Ratio		2.25										
<b>Related Information</b>												
Discount rate		0.11										
Wage rate (Rs/day)		700			**NPK			- 1 <sup>st</sup> year				
Average yield (kg/ha)		18415			TSP			- 207 kg				
Average price (Rs / kg)		50			Urea			- 193 kg				
					MOP			- 48 kg				

# PASSION FRUIT

(*Passiflora spp*)

Cultivated Areas of Passion Fruit



**Uses :** Use for cake icing, candy ice cream, jelly, mousses, sauces, sherbets, syrups and pies. Tender leaves of passion fruit are consumed as a leafy vegetable.



## Ecological requirements :

Temperature : 22-32 C°  
 Rainfall : 1000-1500mm/year  
 pH range : 6.0-7.5  
 Soil : Sandy loams or laterite soils

**Suitable Districts :** Colombo, Kalutara

## Recommended varieties & potential yield :

Yellow cultivar (Low country) }  
 Purple cultivars (Up country) } 14825 kg/ha  
 Rahangala hybrid Maani

**Spacing :** 2.5m x 4m (1125 plant/ha)

**Planting season :** September, October

**Availability :** March - August

## Nutritive values: (Per 100g edible portion)

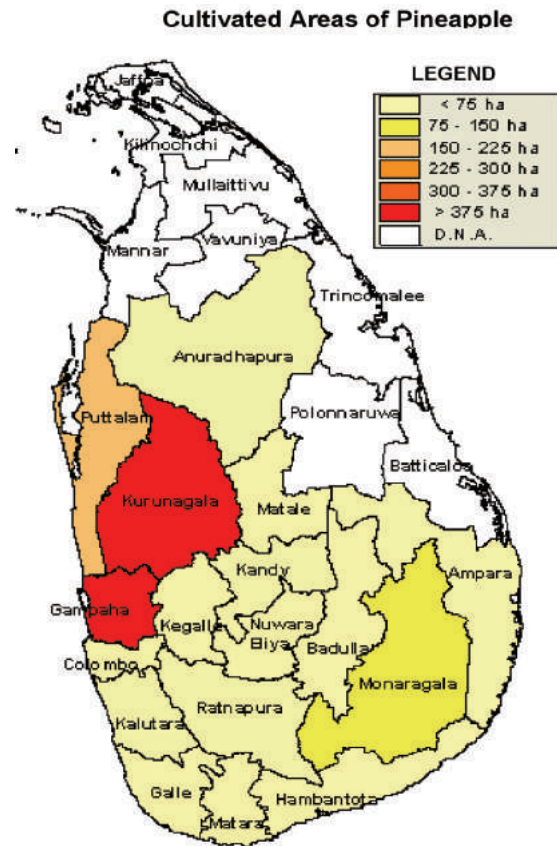
Moisture	89g
Energy	37kcal
Protein	1.2g
Fat	0.2g
Carbohydrates	7.7g
Calcium	10mg
Phosphorus	30mg
Iron	0.7mg
Carotene	1968mcg
Thiamine	10mcg
Riboflavin	20mcg
Vitamin C	13mg



# PINEAPPLE

(*Ananas comosus*)

**Uses :** Fruits are high in vitamin C. Ripen fruits are used fresh used for preparation of jam, cordial and confectioneries.



## Ecological requirement :

Temperature : 24-32 C°

Rainfall : 1500-3000 mm/year

pH : 5.5-6.0.

Soil : Sandy loams or laterite soils

**Suitable Districts :** Gampaha, Kurunegala, Badulla, Monaragala, Puttalam

## Recommended varieties & potential yield

Murushi : 16 mt/ha

Kivi : 4 mt/ha

**Spacing :** 30cm x 2m 15900 plants/ha

40cm x 2m 12250 plants/ha

50cm x 2m 9800 plants/ha

**Planting season :** October, November

**Availability :** May, June, December, January

## Nutritive values: (Per 100g edible portion)

Moisture	87.8g
Energy	46kcal
Protein	0.4g
Fat	0.1g
Carbohydrates	10.8g
Calcium	20mg
Phosphorus	9.0mg
Iron	1.2mg
Carotene	18mcg
Thiamine	200mcg
Riboflavin	120mcg
Niacin	0.1mcg
Vitamin C	39mg

**Crop - Pineapple - (variety: Murushi)**

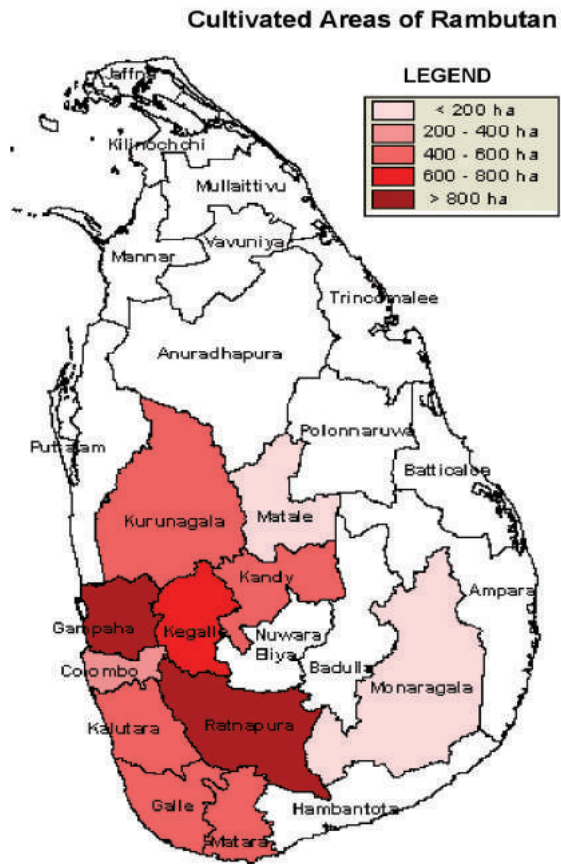
**District - Gampaha**

Operation	Crop Establishment			Crop Maintenance - Total Cost (Rs/ha)					
	Qty/ha	Input Cost Rs/ha	Power Cost Rs/ha	Labour Mds/ha	Labour Cost Rs/ha	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year
Fencing				100	60000	60000			
Poles	140	63000				63000			
Barbed wire (kg)	250	48000				48000			
Nails (kg)	10	3250				3250			
Land preparation (4WT)			16250			16250			
Planting (No.of suckers)	12500	100000		35	21000	121000			
Compost (kg)	10000	37500		13	7500	45000			
Lime (kg)	2000	10800		5	3000	13800			
Fertilizer application									
NPK (kg)*	1688	51000		10	6000	57000	57000	57000	
Earthing up				13	7800	7800	7800	7800	
Manual weeding/Mulching				25	15000	15000	15000	15000	
Chemical weeding		4413		5	3000	7413	7413	7413	
Pest control		3660		5	3000	6660	6660	6660	
Hormone application		1926		5	3000	4926			
Watching				16	9600	9600	9600	9600	
Harvesting							13200	13200	13200
Land rent (Rs/ha)		15000				15000	15000	15000	15000
Total labour (Mds)				232			96	96	20
<b>Total cost (Rs)</b>		<b>338549</b>	<b>16250</b>		<b>138900</b>	<b>493699</b>	<b>131673</b>	<b>131673</b>	<b>28200</b>
Yield (Fruits/ha)							12500	12500	20000
Gross income (from fruits) Rs./ha							1062500	1062500	1700000
Gross income (from suckers) Rs./ha							96000	96000	
<b>Total gross income (Rs./ha)</b>							<b>1158500</b>	<b>1158500</b>	<b>1700000</b>
Present value of cost (Rs)	666497								
Present value of benefit (Rs)	2907192								
Net Present value (Rs.)	2240695	*NPK	-	1 <sup>st</sup> year					
Benefit Cost Ratio	4.40	TSP	-	250 kg					
<b>Related Information</b>		Urea	-	500kg					
Discount rate	0.11	MOP	-	750 kg					
Wage rate (Rs/day)	600	Kieserite	-	187.5 kg					
Average yield (fruits/ha/1 year)	15000								
Average price (Rs/fruit)	85								

# RAMBUTAN

(*Nephelium lappaceum*)

**Uses :** The fruits are eaten fresh or mixed with other fruits in syrups. It can also be used for decorating cakes & other sweet meats.



## Ecological requirements :

Temperature : 27-30C°  
 Rainfall : 1500 - 2000mm/year  
 pH : 75-80  
 Soil : Sandy loams

**Suitable Districts :** Gampaha, Colombo, Kalutara, Kegalle, Ratnapura

## Recommended varieties

Malwana special, Malayan red, Malayan yellow

**Potential yield :** 200 - 250 fruits/plant/year

**Spacing :** 10 x 10m (100 plants/ha)

**Planting season :** April, May

**Availability :** June, August

## Nutritive values: (Per 100g edible portion)

Moisture	82g
Energy	64kcal
Protein	1.0g
Fat	0.1g
Carbohydrates	16.5g
Calcium	20mg
Phosphorus	15mg
Iron	1.9mg
Thiamin	10mcg
Riboflavin	60mcg
Niacin	0.4mcg
Vitamin C	53mg

**Crop - Rambutan (variety: Malwana Special)**  
**District - Gampaha**

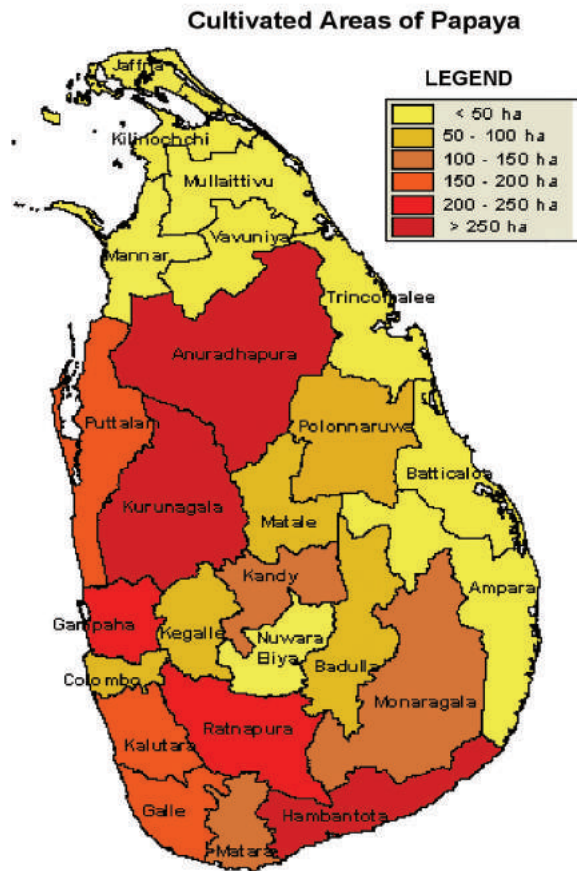
Operation	Crop Establishment					Crop Maintenance - Total Cost (Rs/ha)						
	Input Qty/ha	Power Cost Rs/ha	Labour Mds/ha	Cost Rs/ha		1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year	5 <sup>th</sup> year	6 <sup>th</sup> - 9 <sup>th</sup> year	10 <sup>th</sup> - 15 <sup>th</sup> year
Fencing			100	60000		60000						
Poles	140	63000				63000						
Barbed wire (kg)	250	48000				48000						
Nails (kg)	10	3250				3250						
Land preparation (4WT)				16250		16250						
Digging holes with excavator				8000		8000						
Planting (No.of plants)*	100	15000		8	4800	19800						
Fertilizer application												
NPK (kg)**	91	1297		3	1800	3097	3627	4397	6938	6938	36200	54300
Lime (kg)	50	270		2	1200	1470	1470	1470	1470	1470	5880	8820
Compost (kg)	1000	3750		12	7200	10950	10950	10950	10950	10950	43800	65700
Manual weeding				8	4800	4800	4800	4800	4800	4800	19200	28800
Irrigation		300000	10000	8	4800	314800	18400					
Pest control									4500	6000	24000	36000
Pruning & other operation									3000	6000	24000	36000
Watching (Inc.crackers, electricity)									61000	61000	244000	366000
Harvesting									1800	18000	72000	108000
Land rent		15000				15000	15000	15000	15000	15000	15000	90000
Total labour (Mds)				141			33	33	254	249	2628	8760
<b>Total cost (Rs.)</b>		<b>434567</b>	<b>34250</b>		<b>84600</b>	<b>568417</b>	<b>54247</b>	<b>36616</b>	<b>109458</b>	<b>130158</b>	<b>484080</b>	<b>793620</b>
Yield (kg/ha)									400	2000	31000	240000
Gross income (Rs./ha)									34000	170000	2635000	20400000
Present value of cost (Rs)		1173802										
Present value of benefit (Rs)		6959136										
Net Present Value (Rs)		5785334										
Benefit Cost Ratio		5										
<b>Related Information</b>												
Discount rate		0.11										
Wage rate (Rs/day)		600										
Average yield (kg/ha)		22783										
Average price (Rs/kg)		85										

\*Budded plant  
\*\*NPK  
Urea - 1<sup>st</sup> year  
- 24 kg.  
MOP - 22 kg  
Rock Phosphate - 45 kg

# PAPAYA

(*Carica papaya*)

**Uses :** A fruit rich in vitamin C. Either ripen fruits are used in fresh or processed to make soft drinks, jams, ice creams and fruit salads.



## Ecological requirements :

Temperature : 28 – 35 C°  
 Rainfall : 1000-1500mm  
 pH : 5.5-6.5  
 Soil : Sandy loams or laterite soils

**Suitable Districts :** Puttalam, Hambantota, Jaffna

**Recommended varieties & potential yield :**  
 Rathna : 3.5 mt/ac/year

**Spacing :** 2.5m x 3.5m (1125 plants/ha)

**Planting season :** September, October

**Availability :** May, June

## Nutritive values: (Per 100g edible portion)

Moisture	90.8g
Energy	32kcal
Protein	0.6g
Fat	0.1g
Carbohydrates	7.2g
Calcium	17.0mg
Phosphorus	13.0mg
Iron	0.5mg
Carotene	666mcg
Thiamine	40mcg
Riboflavin	250mcg
Niacin	0.2mcg
Vitamin C	57mg

**Crop - Papaya (Variety : Red Lady)**  
**District - Puttlam**

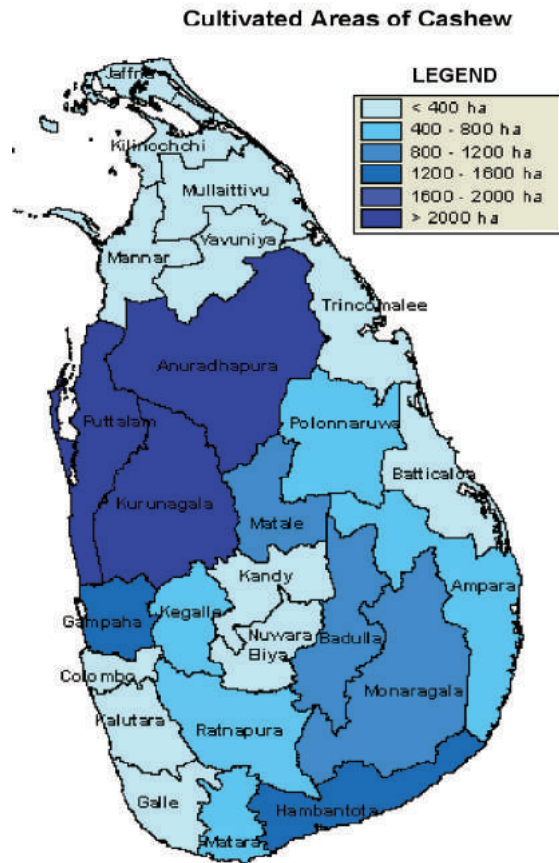
Operation	Crop Establishment				Crop Maintenance - Total cost (Rs/ha)			
	Input	Power	Labour		1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year
	Qty/ha	Cost Rs/ha	Cost Rs/ha	Mds/ha	Cost Rs/ha			
Fencing				100	80000	80000		
Poles	140	63000				63000		
Barbed wire (kg)	250	48000				48000		
Nails (kg)	10	3250				3250		
Land preparation (4WT)			6000			6000		
Preparation of pits				15	12000	12000		
Planting (No of plants)	1125	23625		10	8000	31625		
Fertilizer application								
NPK (kg)*	1575	37800		15	24000	61800	62070	62070
Compost (kg)	22500	191250		13	10400	201650	201650	201650
Manual weeding				23	18400	18400	18400	18400
Irrigation		250000	18000	90	72000	340000	90000	90000
Pest control		9970		6	4800	14770	14770	14770
Fixing support (Wind break) **		45000				45000		
Harvesting							249600	249600
Land rent		50000				50000	50000	50000
Total labour (Mds)				272			459	459
<b>Total cost (Rs)</b>		<b>721895</b>	<b>24000</b>		<b>229600</b>	<b>975495</b>	<b>686490</b>	<b>686490</b>
Yield (kg/ha.)							38500	42778
Gross income (Rs./ha.)							1347500	1497230
Present value of cost (Rs)		2349622						
Present value of benefit (Rs)		3047243						
Net Present Value (Rs)		697621						
Benefit Cost Ratio		1.30						
<b>Related Information</b>								
Discount rate		0.11						
Wage rate (Rs/day)		800						
Average yield( (kg/ha)		39509						
Average price (Rs/kg)		35						
<b>Life span</b>								
Agro well		20 yeras						
Water pump (kerosene)		10 years						

\*\* contract basis (Rs. 40 per tree including material cost+labour cost)

# CASHEW

(*Anacardium occidentale*)

**Uses :** Matured seed kernels are eaten fresh, fried or roasted. Also added into ice creams fruit salads & used in the confectionery industry. Cashew apple is eaten fresh as a fruit and can be used in preparing pickles & salads.



## Ecological requirements :

Temperature : 28 – 35 C°  
 Rainfall : 1000-2000mm/year  
 pH : 5.5-6.5  
 Soil : Sandy loams or laterite soils

**Suitable districts :** Puttalam, Kurunegala, Mannar, Hambantota, Anuradhapura

## Recommended varieties :

Kondachchi, Mannar, Trinidad, Shanthiguru, Ulal, Vital

**Potential yield :** 2000 kg/ha/year

**Spacing :** 9.0 x 9.0m (110 plants/ha)

**Planting season :** September, October

**Availability :** April, May, June

## Nutritive values:(Per 100g edible portion)

Moisture	40g
Energy	568kcal
Protein	18.4g
Fat	46.3g
Carbohydrates	28.7g
Calcium	28.0mg
Phosphorus	462mg
Iron	3.6mg
Carotene	5mcg
Thiamine	250mcg
Riboflavin	340mcg
Niacin	2.4mcg

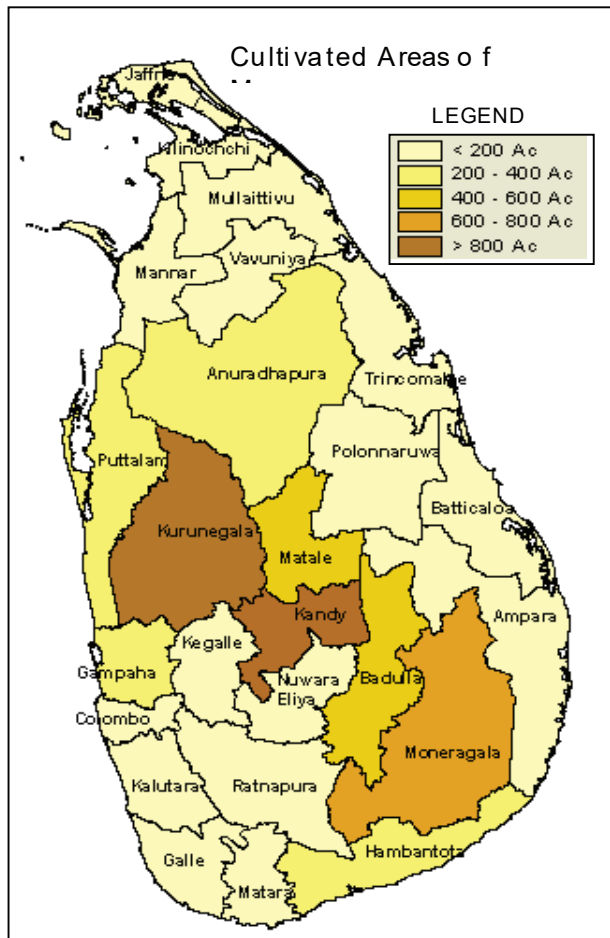


# MANGO

(*Mangifera indica*)

**Uses :** A fruit rich in Calcium & vitamin C use ripe fruit fresh.

**Cultivated Areas of Mango**



**Nutritive values: (Per 100g edible portion)**

Moisture	81.7g
Energy	51kcal
Protein	0.9g
Fat	0.3g
Carbohydrates	11.2g
Calcium	10mg
Phosphorus	28mg
Iron	1.4mg
Thiamine	30mcg
Riboflavin	30mcg
Niacin	0.4mcg
Vitamin C	212mg

**Ecological requirement:**

Temperature : 27-30Co  
 Rainfall : 500-2500 mm/year  
 pH : 5.5-7.5  
 Soil : Well drainage-Deep soil

**Suitable districts:** Kurunegala, Anuradhapura, Hambantota, Puttalam, Mahaweli H & C, Moneragala, Jaffna, Matale

**Recommended varieties :**

**Dry Zone:** Karuthakolomban, Willard Vellaicolomban, Ambalavi, Chembatan, Malwana (Underground)

**Intermediate zone:** Karuthakolomban, Vellaicolomban Willard, Bettiamba, Malwana (Underground)

**Wet zone:** Vellaicolomban, Gira amba, Peterprasand Dampara

**Potential yield:**

Year	Potential Yield (Fruit/Plant)
5-8	450
9-10	800
11-25	1250

**Spacing:**

	Row	Inter row
Wilad	7 m	10
Other	10 m	10 m (100 plant/ha)

**Planting season :** December, January, February

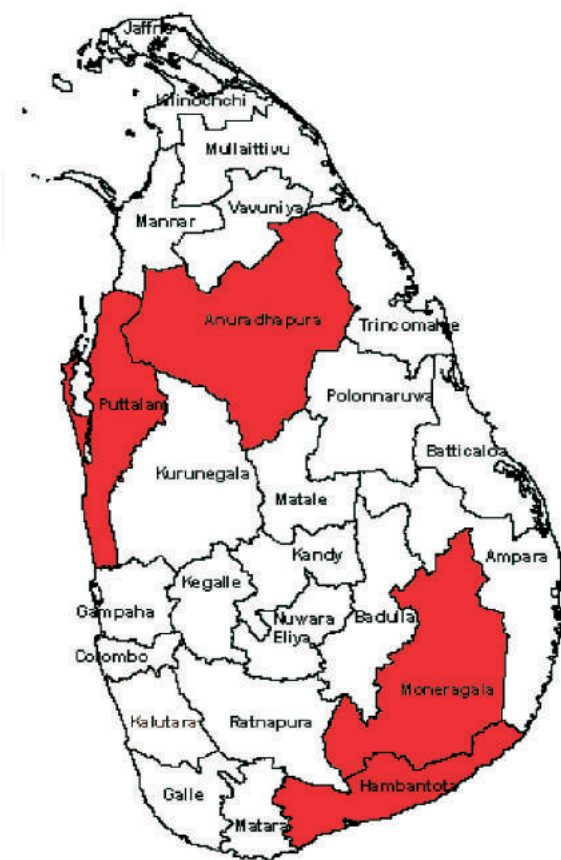


# POMEGRANATE

(*Punica granatum*)

**Uses :** Fruit is high in Phosphorus. Use extensively as a source of traditional medicines

Cultivated Areas of Pomegranate



## Ecological requirements :

Temperature: 23 - 30C<sup>0</sup>

Rainfall : 750 - 1000 mm/year

pH : 5.5 - 7.0

Soil : Sandy loams or laterite soils

**Suitable Districts:** Hambantota, Puttalam, Monaragala, Anuradhapura, Jaffna

## Recommended varieties :

Himali, Daya, Nayana, Kalpitiya selection

**Potential yield :** 100 - 150 fruits/plant/year

**Spacing :** 4 x 7m (1100 plants/ha)

**Planting season :** September, October

**Availability :** June, July

## Nutritive values: (Per 100g edible portion)

Moisture	78g
Energy	65kcal
Protein	1.6g
Fat	0.1g
Carbohydrates	14.5g
Calcium	10mg
Phosphorus	70mg
Iron	0.3mg
Thiamine	60mcg
Riboflavin	100mcg
Niacin	0.3mcg
Vitamin C	16mg

**Crop - Pomegranate (Variety : Kalpitiya selection)**  
**District - Puttlam**

Operation	Crop Establishment				Crop Maintenance - Total Cost Rs/ha						
	Input	Power	Labour		1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year	5 <sup>th</sup> year	6 <sup>th</sup> year	7 <sup>th</sup> - 10 <sup>th</sup> year
	Qty/ha	Cost Rs/ha	Cost Rs/ha	Mds/ha	Cost Rs/ha						
Fencing				100	80000	80000					
Poles	140	63000				63000					
Barbed wire (kg)	250	48000				48000					
Nails (kg)	10	3250				3250					
Land preparation (4WT)			15000			15000					
Planting (No.of plants)	1100	33000		45	36000	69000					
Fertilizer application											
NPK (kg)*	665	15960		14	11200	27160	25852	35752	47675	62680	250720
Compost (kg)	11000	41250		20	16000	57250	57250	57250	57250	57250	229000
Manual weeding				40	32000	32000	32000	32000	32000	32000	128000
Irrigation		200000	15000	48	38400	253400	53400	53400	53400	53400	213600
Pest control		5000		3	1200	6200	6200	6200	10000	10000	40000
Bagging & pruning				16	12800	12800	12800	16000	18400	20000	112000
Harvesting								16000	20000	32000	128000
Land rent		20000				20000	20000	20000	20000	20000	80000
Total labour (Mds)				286			150	169	174	219	976
<b>Total cost (Rs)</b>		<b>429460</b>	<b>30000</b>		<b>227600</b>	<b>687060</b>	<b>207542</b>	<b>220602</b>	<b>254725</b>	<b>275330</b>	<b>1181320</b>
Yield (fruit/ha.)							1500	4400	22000	66000	330000
Gross income (Rs./ha.)							75000	220000	1100000	3300000	16500000
Present value of cost (Rs)		1927669									
Present value of benefit (Rs)		12687365									
Net Present Value (Rs)		10759696									
Benefit Cost Ratio		6.6									
<b>Related Information</b>											
Discount rate		0.11									
Wage rate (Rs/day)		800									
Average yield ( (fruit/ha)		75000									
Average price (Rs/fruit)		50									

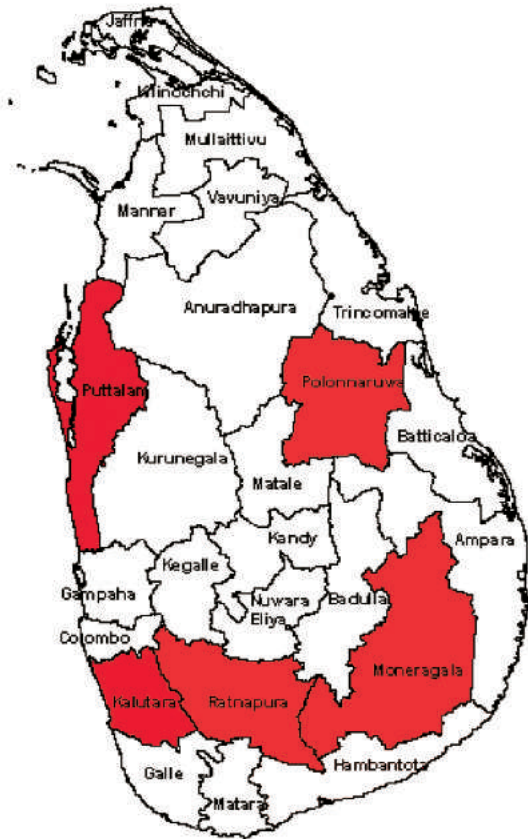
\*NPK - 1<sup>st</sup> year  
Urea - 286 kg  
TSP - 198 kg  
MOP - 66 kg

# DRAGON FRUIT

(Cactaceae)

Uses : A fruit rich in vitamin C, phosphorus and calcium.

Cultivated Areas of Dragon Fruit



## Ecological requirements :

Temperature : 20-30 C°  
 Rainfall : 500-2000mm/year  
 pH : 5.5-6.5  
 Soil : Well drained red yellow podzolic lateritic soils & reddish brown earth.

**Suitable districts :** Monaragala, Puttalam, Ratnapura, Kalutara, Polonnaruwa

## Recommended varieties

White flesh type, Red flesh type

**Potential yield :** 50000 - 75000 kg/ha/year

**Spacing :** 3m x 3m (800 plants/ha)

**Planting season :** October, November

**Availability :** June, October

## Nutritive values: (Per 100g edible portion)

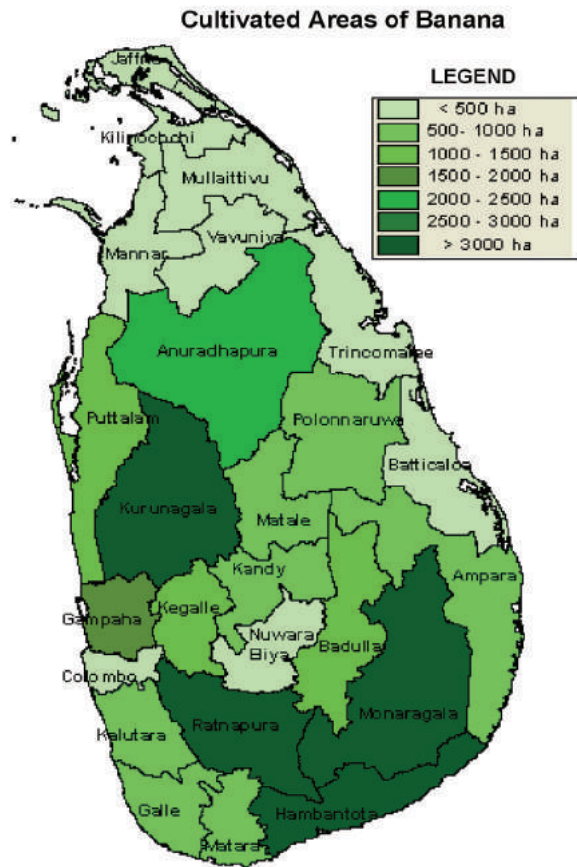
Moisture	83g
Protein	0.229g
Fat	0.61g
Calcium	8.8mg
Phosphorus	36mg
Iron	0.65mg
Carotene	0.012mg
Vitamin C	9mg



# BANANA

(*Musa spp.*)

**Uses :** A fruit high in energy. Ripen fruits are consumed fresh & used in preparation of fruit salads, drinks, sweet meat & desserts.



## Ecological requirements :

Temperature : 24 - 29 C°  
 Rainfall : 1500-3000mm/year  
 pH range : 5.5 - 7.0  
 Soil : Sandy loams or laterite soils

**Suitable Districts :** Hambantota, Jaffna, Kalutara Ratnapura

## Recommended varieties & spacing & potential yield :

Kolikuttu	2.4 m x 2.4 m	: 27,350 kg/ha
Bim kehel	2.4 m x 2.4 m	: 26,000 kg/ha
Anamalu	3.6 m x 3.6 m	: 25,100 kg/ha
Amban	3.6 m x 3.6 m	: 27,000 kg/ha
Ambul	3.0 m x 3.0 m	: 26,300 kg/ha
Seeni kesel	3.0 m x 3.0 m	: 25,000 kg/ha

**Planting season :** May, June

**Availability :** May, June, July, August

## Nutritive values: (Per 100g edible portion)

Moisture	70.1 g
Energy	116.0 kcals
Protein	1.2 g
Fat	0.3 g
Carbohydrates	27.2 g
Calcium	17.0 mg
Phosphorus	36.0 mg
Iron	0.9 mg
Carotene	78.0 mcg
Thiamine	50.0 mcg
Riboflavin	80.0 mcg
Niacin	0.5 mcg
Vitamin C	7.0 mg

**Crop - Banana (Variety : Ambul)**

**District - Ratnapura**

Operation	Crop Establishment				Crop Maintenance -Total cost ( Rs/ha)					
	Input	Power	Labour		1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year	5 <sup>th</sup> year	
	Qty/ha	Cost Rs/ha	Cost Rs/ha	Mds/ha	Cost Rs/ha					
Fencing				100	80000	80000				
Poles	140	63000				63000				
Barbed wire (kg)	250	48000				48000				
Nails (kg)	10	3250				3250				
Land preparation (4WT)			15000			15000				
Preparation of pits				20	16000	16000				
Planting (No.of plants)	1100	55000		25	20000	75000				
Fertilizer application										
NPK** (kg)	1540	36960		13	10400	47360	42080	42080	42080	
Dolomite **(kg)	550	8250				8250	8250	8250	8250	
Kieserite ** (kg)	330	26400				26400	26400	26400	26400	
Compost (kg)	11000	99000		20	16000	115000	115000	115000	115000	
Crop maintenance				26	20800	20800	20800	20800	20800	
Chemical weed control		11250		7	5600	16850	16850	16850	16850	
Pest control						14750	14750	14750	14750	
Irrigation		300000	12000	45	36000	348000	48000	48000	48000	
Harvesting							70400	84000	72000	
Land rent		90000				90000	90000	90000	90000	
Total labour (Mds)				256			204	221	206	
<b>Total cost (Rs)</b>		<b>741110</b>	<b>27000</b>		<b>204800</b>	<b>972910</b>	<b>452530</b>	<b>466130</b>	<b>520130</b>	<b>138000</b>
Yield (kg/ha)							25500	38250	28679	17000
Gross income (Rs/ha)							1275000	1912500	1433950	850000
Present value of cost (Rs)		3053570								
Present value of benefit (Rs)		3882243								
Net Present Value (Rs)		828673								
Benefit Cost Ratio		1.26								
<b>Related Information</b>										
Discount rate		0.11		**NPK	- 1 <sup>st</sup> year		**Apply only PH < 5			
Wage rate (Rs/day)		800		Urea	- 424 kg		Repeat dolomite and organic manure application in every year			
Average yield ((kg/ha)		27357		TSP	- 385 kg					
Average price (Rs/kg)		50		MOP	- 732 kg					
<b>Life span:</b>				Dolomite	- 550 kg					
Agro well		20 years		Kieserite	- 330 kg					
Water pump (kerosene)		10 years								

**Crop - Banana (Variety : Kolikuttu)**

**District - Ratnapura**

Operation	Crop Establishment					Crop Maintenance -Total cost (Rs/ha)				
	Input		Power	Labour		1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year	5 <sup>th</sup> year
	Qty/ha	Cost Rs/ha	Cost Rs/ha	Mds/ha	Cost Rs/ha					
Fencing				100	80000	80000				
Poles	140	63000				63000				
Barbed wire (kg)	250	48000				48000				
Nails (kg)	10	3250				3250				
Land preparation (4WT)			15000			15000				
Preparation of pits				20	16000	16000				
Planting (No of plants)	1600	80000		25	20000	100000				
Fertilizer application										
NPK *(kg)	2240	53760		13	10400	64160	56480	56480	56480	
Dolomite (kg)	800	12000				12000	12000	12000	12000	
Kieserite (kg)	480	38400				38400	38400	38400	38400	
Compost (kg)	16000	144000		20	16000	160000	160000	160000	160000	
Crop maintenance				26	20800	20800	20800	20800	20800	
Chemical weed control		11250		7	5600	16850	16850	16850	16850	
Pest control							14750	14750	14750	
Irrigation		300000	12000	45	36000	348000	48000	48000	48000	
Harvesting							70400	84000	72000	48000
Land rent		90000				90000	90000	90000	90000	90000
Total labour (Mds)				256			204	221	206	60
Total cost (Rs)		843660	27000		204800	1075460	527680	541280	529280	138000
Yield (kg/ha)							24000	30000	30000	20800
Gross income (Rs/ha)							1800000	2250000	2250000	1560000
present value of cost (Rs)		2223448								
Present value of benefit (Rs)		5514030								
Net Present Value (Rs)		3290541								
Benefit Cost Ratio		2.48								
<b>Related Information</b>										
Discountrate		0.11		*NPK	-	1 <sup>st</sup> year		**Apply only PH < 5		
Wage rate (Rs/day)		800		Urea	-	616 kg		Repeat dolomite and organic manure application in every year		
Average yield (kg/ha)		26200		TSP	-	560 kg				
Average price (Rs/kg)		75		MOP	-	1064 kg				
<b>Life span:</b>				Dolomite	-	800 kg				
Agro well		20 years		Kieserite	-	480 kg				
Water pump (kerosene)		10 years								

**Crop - Banana (Variety : Seeni Kesel)**  
**District - Ratnapura**

Operation	Crop Establishment				Crop Maintenance -Total cost (Rs/ha)					
	Input Qty/ha	Power Cost Rs/ha	Labour Mds/ha	Cost Rs/ha	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year	5 <sup>th</sup> year	
Fencing			100	80000	80000					
Poles	140	63000			63000					
Barbed wire (kg)	250	48000			48000					
Nails (kg)	10	3250			3250					
Land preparation (4WT)			15000		15000					
Preparation of pits			20	16000	16000					
Planting (No of plants)	1100	44000	25	20000	64000					
Fertilizer application										
NPK**(kg)	1540	36960	13	10400	47360	42080	42080	42080		
Dolomite **(kg)	550	8250			8250	8250	8250	8250		
Kieserite (kg)	330	26400			26400	26400	26400	26400		
Compost (kg)	11000	99000	20	16000	115000	181000	181000	181000		
Crop maintenance			26	20800	20800	20800	20800	20800		
Chemical weed control		11250	7	5600	16850	16850	16850	16850		
Pest control						14750	14750	14750		
Irrigation		300000	12000	45	36000	348000	48000	48000		
Harvesting							70400	84000	48000	
Land rent		90000			90000	90000	90000	90000	90000	
Total labour (Mds)			256				204	221	206	
<b>Total cost (Rs)</b>		<b>730110</b>	<b>27000</b>		<b>204800</b>	<b>961910</b>	<b>518530</b>	<b>532130</b>	<b>520130</b>	<b>138000</b>
Yield (kg/ha)							19800	25200	23800	19000
Gross income (Rs/ha)							792000	1008000	952000	760000
present value of cost (Rs)		2041108								
Present value of benefit (Rs)		2728359								
Net Present Value (Rs)		324476								
Benefit Cost Ratio		1.17	**NPK	-	1 <sup>st</sup> year		**Apply only PH < 5			
			Urea	-	424 kg		Repeat dolomite and organic manure application in every year			
			TSP	-	385 kg					
			MOP	-	732 kg					
			Dolomite	-	550 kg					
			Kieserite	-	330 kg					
<b>Related Information</b>										
Discount rate		0.11								
Wage rate (Rs/day)		800								
Average yield (kg/ha)		21950								
Average price (Rs/kg)		40								
<b>Life span:</b>										
Agro well		20 years								
Water pump (kerosene)		10 years								

**Crop - Banana (Variety : Ambon)**

**District - Ratnapura**

Operation	Crop Establishment				Crop Maintenance - Total cost (Rs/ha)					
	Input	Power	Labour		1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	
	Qty/ha	Cost Rs/ha	Cost Rs/ha	Mds/ha	Cost Rs/ha	year	year	year	year	year
Fencing				100	70000	70000				
Poles	140	63000				63000				
Barbed wire (kg)	250	48000				48000				
Nails (kg)	10	3250				3250				
Planting (No of plants)	740	74000		50	35000	109000				
Fertilizer application										
NPK**(kg)	1036	24864		16	11200	36064	32512	32512	32512	
Dolomite (kg)	370	5550				5550	5550	5550	5550	
Kieserite (kg)	222	17760				17760	17760	17760	17760	
Compost (kg)	7400	66600		20	14000	80600	80600	80600	80600	
Crop maintenance				26	18200	18200	20800	20800	20800	
Chemical weed control		11250		7	4900	16150	16150	16150	16150	
Pest control							14750	14750	14750	
Harvesting							61600	73500	73500	42000
Land rent		20000				20000	20000	20000	20000	20000
Total labour (Mds)				219			162	179	179	129
Total cost (Rs)		334274			153300	487574	269722	281622	281622	62000
Yield (kg/ha)							19800	25200	23800	14800
Gross income (Rs/ha)							1139600	1419600	1419600	1036000
present value of cost (Rs)		1086395								
Present value of benefit (Rs)		3899290								
Net Present Value (Rs)		2812895								
Benefit Cost Ratio		3.59								
<b>Related Information</b>										
Discount rate		0.11								
Wage rate (Rs/day)		700								
Average yield( (kg/ha)		17910								
Average price (Rs/kg)		70								
			**NPK	-	1 <sup>st</sup> year		**Apply only PH < 5			
			Urea	-	285 kg		cultivation is under rain-fed Repeat dolomite and organic manure application in every year.			
			TSP	-	259 kg					
			MOP	-	492 kg					
			Dolomite	-	370 kg					
			Kieserite	-	222 kg					

# DURIAN

(*Durio zibethinus*)

## Cultivated Areas of Durian



Uses : Fresh fruit, cream, fruit bars, roasted seeds



### Ecological requirement :

Temperature : 24 - 30C°  
 Rainfall : 1600 - 4000 mm/year  
 pH : 5.0 - 6.5  
 Soil : Clay with sandy loamy aluvial soil

**Suitable districts:** Kandy, Matale, Kalutara, Kegalle

**Recommended varieties :** Ambathanna, Kasun

**potential yield :** Well matured plant (10 - 15 years) 200 fruits/plant

**Spacing:** 10 m x 10 m (100 plants/ha)

**Availability :** June, September

### Nutritive values: (Per 100g edible portion)

Energy	183 kcal
Protein	2.8 g
Fat	3.9 g
Carbohydrates	34.1 g
Calcium	10 mg
Phosphorus	50 mg
Iron	1 mg
Carotene	12 mcg

**Crop - Durian (Variety : Ambatenna/Kasun)**

**District - Kandy**

Operation	Input		Crop Establishment		Crop Maintenance - Total cost (Rs/ha)								
	Qty/ha	Cost Rs/ha	Cost Rs/ha	Mds/ha	Cost Rs/ha	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year	5 <sup>th</sup> year	6 <sup>th</sup> - 9 <sup>th</sup> year	10 <sup>th</sup> - 15 <sup>th</sup> year	16 <sup>th</sup> year
Fencing				100	80000	80000							
Poles	140	63000				63000							
Barbed wire (kg)	250	48000				48000							
Nails (kg)	10	3250				3250							
Land preparation (Manual)				20	16000	16000							
Preparation of pits				8	6400	6400							
Planting (No of plants)	100	15000		15	12000	27000							
Fertilizer application													
NPK (kg)*	52	1248		5	4000	5248	5872	7312	8752	10192	48114	86453	16480
Dolomite **(kg)	50	270				270	270	270	270	270	1080	1620	270
Kieserite **(kg)	6	480				480		960		1920	4000	9200	2000
Compost (kg)	2000	17000		5	4000	21000	21000	21000	21000	21000	84000	126000	21000
Liquid fertilizer (ml)	3900	4680		7	5200	9880	9880	9880	9880				
Irrigation			21000	30	24000	45000	51000	51000	51000				
Manual weeding				30	24000	24000	24000	24000	24000	20000	40000	60000	10000
Pest & disease control	12450			8	6400	18850	18850	18850	18850				
Pruning									3875	3875	31500	47250	7875
Watching										96000	384000	576000	96000
Harvesting										8000	32000	68000	12000
Land rent		30000				30000	30000	30000	30000	30000	30000	30000	30000
Total labour (Mds)				227			113	85	85	188	1080	1153	191
<b>Total cost (Rs)</b>		<b>195378</b>	<b>21000</b>		<b>182000</b>	<b>398378</b>	<b>161272</b>	<b>163672</b>	<b>168027</b>	<b>191257</b>	<b>654694</b>	<b>1004523</b>	<b>195625</b>
Production (fruits/ha)										1000	20000	91000	20000
Gross income (Rs/ha)										200000	4000000	18200000	4000000
Present value of cost (Rs)		1456251											
Present value of benefit (Rs)		7729603											
Net Present Value (Rs)		6273353											
Benefit Cost Ratio		5.3											
<b>Related Information</b>													
Discount rate		0.11											
Wage rate (Rs/day)		800											
Average yield( kg/ha)		11000											
Average price (Rs/kg)****		200											

\*Budded plants

\*\*Apply only PH < 5

Repeat dolomite and organic manure application in every year cultivation is under rain-fed

\*NPK

\*\*\*\*Price of medium size fruit

Urea

16 kg

TSP

24 kg

MOP

12 kg

Kieserite

6 kg

# PEARS

(*Phrus communis*)

Cultivated Areas of Pears



**Uses :** Pears is a good source of vitamin C, Potassium & dietary fiber.



### Ecological requirements :

Temperature : 15 - 25 C°  
 Rainfall : 1500 - 3000 mm  
 pH : 6.5 - 7.5.  
 Soil : Red yellow podsolic

**Suitable districts :** Nuwara Eliya, Badulla

### Recommended varieties & potential yield :

Rahangala pears : 300 Fruits/plant/year  
 Local : 250 Fruits/plant/year

**Spacing :** 4.0 m x 3.5 m (625 plants/ha)

**Planting season :** September, October,

**Availability :** July, September

### Nutritive value : (Per 100 g edible portion)

Moisture	38 g
Energy	100 kcals
Protein	0.38 g
Carbohydrates	15.5 g
Fiber	3.1 g
Potassium	119 mg
Vitamin C	4.2 mg
Sugars	9.8 g

**Crop - Pears (Variety: Rahangala Pear)**

**District - Nuwara Eliya**

Operation	Crop Establishment				Crop Maintenance - Total Cost (Rs/ha)							
	Input	Power	Labour		1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup> - 10 <sup>th</sup>	11 <sup>th</sup> - 25 <sup>th</sup>	
	Qty/ha	Cost Rs/ha	Cost Rs/ha	Mds/ha	Cost Rs/ha	year	year	year	year	year	year	
Fencing				100	70000	70000						
Poles	140	63000				63000						
Barbed wire (kg)	250	48000				48000						
Nails (kg)	10	3250				3250						
Land preparation				45	31500	31500						
Planting (No.of plants)	625	93750		10	7000	100750						
Lime(kg)	312	1684		5	3500	5184	5185	5185	5185	25925	77775	
Fertilizer application												
NPK (kg)*	250	4818		10	7000	11818	15418	19562	23331	21625	108125	324375
Compost (kg)	6250	18750		10	7000	25750	25750	25750	25750	25750	128750	386250
Manual weeding				10	7000	7000	7000	7000	7000	7000	35000	105000
Irrigation			8000	8	5600	13600	13600	13600	13600			
Pest & disease control									10000	500000	150000	
Pruning and other operation									7000	35000	105000	
Watching									7000	35000	105000	
Harvesting									14000	210000	854000	
Land rent		10000				10000	10000	10000	10000	10000	50000	150000
Total labour (Mds)				198			46	46	50	109	640	3285
<b>Total cost (Rs)</b>		<b>243253</b>	<b>8000</b>		<b>138600</b>	<b>389852</b>	<b>76953</b>	<b>81097</b>	<b>88366</b>	<b>107560</b>	<b>1127800</b>	<b>2257400</b>
Yield (kg/ha)										4500	90000	618750
Gross income (Rs/ha)										270000	5400000	37125000
Present value of cost (Rs)		1470869										
Present value of benefit (Rs)		8797002										
Net Present Value (Rs)		7326133										
Benefit Cost Ratio		5.98										
<b>Related Information</b>												
Discount rate		0.11										
Wage rate (Rs/day)		700										
Average yield (kg/ha)		37500										
Average price (Rs/kg)		60										



# FLORICULTURAL CROPS

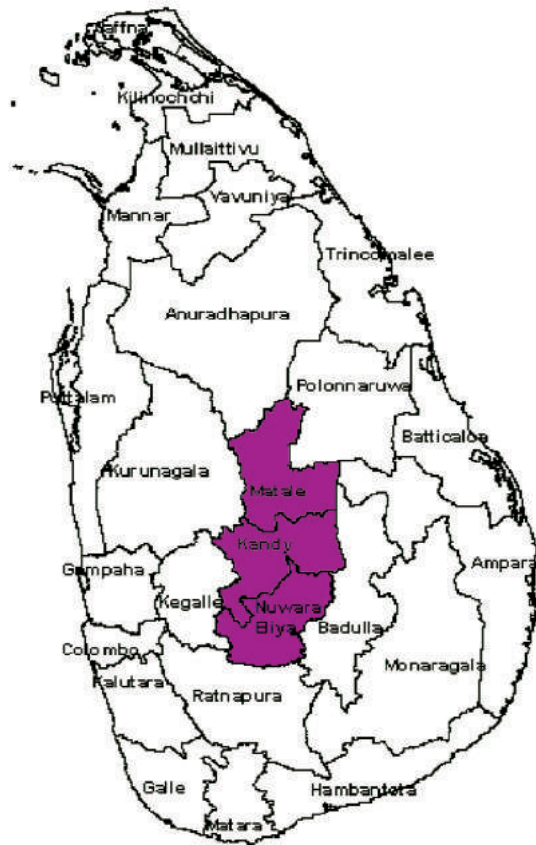




# ANTHURIUM

(*Clarinervum*)

## Cultivated Areas of Anthurium



**Uses :** Anthurium flowers are widely used in the cut flower industry.



### Ecological requirements :

Temperature : 21-30 C°

pH range : 5.5 – 6.0

**Suitable districts :** Kandy, Matala, Nuwara Eliya

**Recommended varieties :** Tropical, Midori, Ctystanin, Jungle bush, Bambinor

**Potential yield :** 250000 flowers/ha/6 month

**Spacing :** 30 cm x 30 cm

**Planting season :** January, February

**Availability :** Year round

**Crop - Anthurium**  
**District - Nuwara Eliya**

Operation	Cultivation in beds									
	Input		Crop Establishment			Crop Maintenance - Total cost (Rs/ha)				
	Qty/ha	Cost Rs/ha	Power Cost Rs/ha	Labour Mds/ha	Cost Rs/ha	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year	5 <sup>th</sup> year
Fencing				100	70,000	70,000				
Poles	140	63,000				63,000				
Barbed wire (kg)	250	48,000				48,000				
Nails (kg)	10	3250				3250				
Land preparation				450	315,000	315,000				
Levelling				200	140,000	140,000				
Planting (No of plants)	50,000	5,000,000		200	140,000	5,140,000				
Fertilizer application				280	196,000	196,000	126,000	126,000	126,000	12,6000
NPK (kg)**	5600	134,400				134,400	134,400	134,400	134,400	134,400
Cow dung (cube)	197	984,375				984,375				
Sand (cube)	98	492188				492,188				
Pieces of coconut husks (cube)	98									
Compost (kg)	10,000	120,000				120,000				
Irrigation		11,430		60	42,000	53,430	53,430	53,430	53,430	53,430
Crop maintenance				60	42,000	42,000	42,000	42,000	42,000	42,000
Harvesting							70,000	61,600	61,600	61,600
Land rent		25,000				25,000	25,000	25,000	25,000	25,000
Total labour (Mds)				1350			400	388	388	388
Total cost (Rs)		6,881,643			945,000	7,826,643	324,830	316,430	316,430	316,430
Yield (flowers/ha)							350,000	300,000	300,000	300,000
(plant/ha)							3,000	3,000	3,000	3,000
Gross income from flowers (Rs/ha)							8,050,000	6,900,000	6,900,000	6,900,000
Gross income from plants (Rs/ha.)							225,000	225,000	225,000	225,000
Present value of cost (Rs)	7,942,268									
Present value of benefit(Rs)	20,847,713									
Net Present Value (Rs)	12,905,446									
Benefit Cost Ratio	2.62									
<b>Related Information</b>										
Discount rate	0.11									
Wage rate (Rs/day)	700									
Average yield (flowers./ha)	1,025,000									
Average yield (plants./ha)	731,250									
Price - (Rs./flower)	23									
(Rs/plant )	75									

\*Area considered is Ginigathhena

\*\*NPK

Amonium sulphate - 1680 kg

TSP - 3080 kg

MOP - 840 kg

**Growing media**

Green manure - 2

Dried cow dung - 1

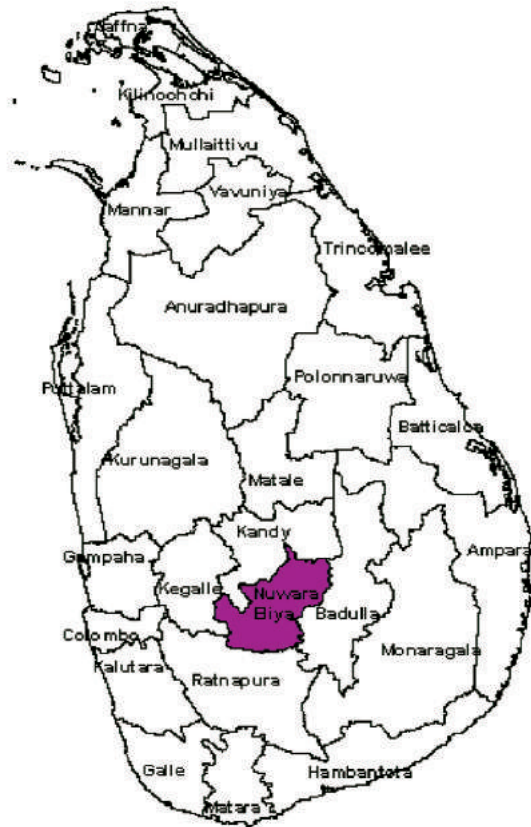
Sand - 1/2

Coconut husks - 1/2

# GERBERA

(*Gerbera jamesoni*)

## Cultivated Areas of Gerbera



**Uses :** Gerbera flowers are widely used in the cut flower industry.



## Ecological requirements :

Temperature : 16 - 27 C°  
pH : 5.5 – 6.0

**Suitable districts :** Nuwara Eliya

**Recommended varieties :** winter queen, pink sparklet, adora, little ruby

**Potential yield :** 20000 flowers/1000sq. ft./yr

**Spacing :** 30 cm x 40 cm

**Planting season :** January, February

**Availability :** Year round

**Crop - Gerbera**  
**District - Nuwara Eliya**

(Extent - 1000 sq ft.)

Operation	Crop Establishment - (1000 sq.ft.)				Crop Maintenance - Total cost (Rs./1000 sq.ft.)			
	Input	Power	Labour		1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	
	Qty/1000 sq.ft.	Cost Rs/1000 sq.ft.	Cost Rs/1000 sq.ft.	Mds Rs/1000 sq.ft.	Cost Rs/1000 sq.ft.	year	year	year
Construction of net house		200000		20	16000	216000		
Land preparation				7	5600	5600		
Tiles	500	10000				10000		
Fumigation	2	6000				6000		
Planting (No.of plants)	700	122500		3	2400	124900		
Fertilizer application				3	2400	2400		
TSP (kg)	2	46				46		
MgSO <sub>4</sub> (kg)	0.38	61				61	61	61
NPK (kg)	46.20	25746				25746	29120	29120
Ca(NO <sub>3</sub> ) <sub>2</sub> (kg)	1	110				110	138	138
Cowdung (cube)	2.5	12800				12800		
Paddy husk (cube)	0.80	1500				1500	28363	4750
Drip irrigation		65000	6000	45	36000	107000	42000	42000
Weed control				6	4800	4800	4800	4800
Pest & disease cotrol		20340		8	6400	26740	26740	26740
Harvesting and packing	14000	14000		30	24000	38000	59200	59200
Land rent		5000				5000	5000	5000
Total labour (Mds)				122			258	246
<b>Total cost (Rs)</b>		<b>483103</b>	<b>6000</b>		<b>97600</b>	<b>586703</b>	<b>195422</b>	<b>171809</b>
No. of flowers						14000	24500	24500
No. of plants							2000	1750
Gross income (Rs.)						280000	840000	796250
Present value of cost (Rs)		812795						
Present value of benefit (Rs)		1516226						
Net Present Value (Rs)		703431						
Benefit Cost Ratio		1.87						
<b>Related Information</b>			<b>Life span</b>					
Discount rate	0.11		Structure	-	5 years			
Wage rate (Rs/day)	800		Net	-	10 years			
Average price (Rs./flower)	20		irrigation system	-	10 years			
(Rs./plant)	175		<b>Growing media</b>					
Net house size (Sq. ft.)	1000		Top soil	-	60%			
			Decomposed dried cow dung	-	30%			
			Paddy husk	-	10%			



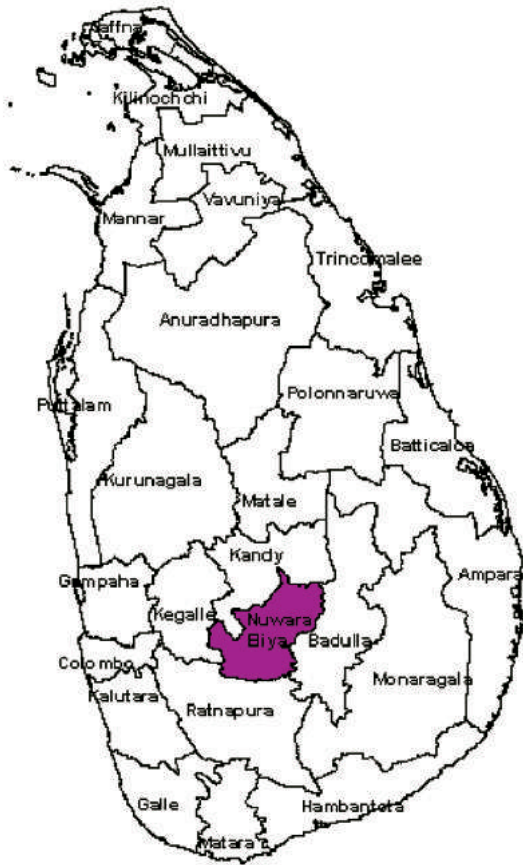
**Crop - Carnation**  
**District - Nuwara Eliya**

Operation	Crop Establishment - (1000 sq. ft)			Labour	Crop Maintenance - Total cost (Rs/1000 sq.ft.)	
	Input	Power			1 <sup>st</sup> year	2 <sup>nd</sup> year
	Qty/1000 sq.ft.	Cost Rs/1000 sq.ft.	Cost Rs/1000 sq.ft.	Mds Rs/1000 sq.ft.	Cost Rs/1000 sq.ft.	
Construction of net house		200000		20	16000	216000
Land preparation				20	16000	16000
Tiles	700	12600				12600
Fumigation		6000				6000
Planting (No of Plants)	3000	150000		6	4800	154800
Fertilizer application				25	20000	20000
NPK (kg)	27	648				648
Hydro (kg)	300	39000				39000
Borone (kg)	7.2	612				612
Ca (No <sub>3</sub> ) <sub>2</sub> (kg)	7.2	792				792
Choir (cube)	1.25	10000				10000
Cow dung (cube)	1.25	6250				6250
Sand (cube)	1.25	6250				6250
Fixing support (90m <sup>2</sup> )	(90 m <sup>2</sup> )	4000		12	9600	13600
Drip irrigation		65000	7800	45	36000	108800
Pest disease & weed control		21890		15	12000	33890
Harvesting				40	32000	32000
Land rent		5000				5000
Total labour (Mds)				183		125
Total cost (Rs)		528042	7800		146400	682242
No of flowers						21000
Gross income (Rs)						525000
Present value of cost (Rs)	770157			<b>Life span</b>		
Present value of benefit (Rs)	1203433			Structure	-	5 years
Net Present Value (Rs)	433276			Net	-	10 years
Benefit Cost Ratio	1.56			Irrigation system	-	10 years
<b>Related Information</b>				<b>Growing media</b>		
Discount rate	0.11			Top soil	-	1
Wage rate (Rs/day)	800			Dried cow dung	-	1
Average price (Rs./flower)	25			Sand	-	1
(Rs/plant)	175			Coir dust	-	1

# PERUVIANLILY

(*Alstromeria*)

Cultivated Areas of Peruvianlily



**Uses :** Alstromeria flowers are widely used in the cut flower industry.



## Ecological requirements :

Temperature : 20 - 25 C°

pH : 5.5 - 6.0

**Suitable districts :** Nuwara Eliya

## Recommended varieties :

Virginia (white)

Diamond (white)

Salmon bay (coral)

**Potential yield :** 150000 flowers/2yr/  
0.25ac

**Spacing :** 1.5 x 1.5m

**Planting season :** June, July

**Availability :** Year round

**Crop - Peruvianlily/Alstromeria**  
**District - Nuwara Eliya**

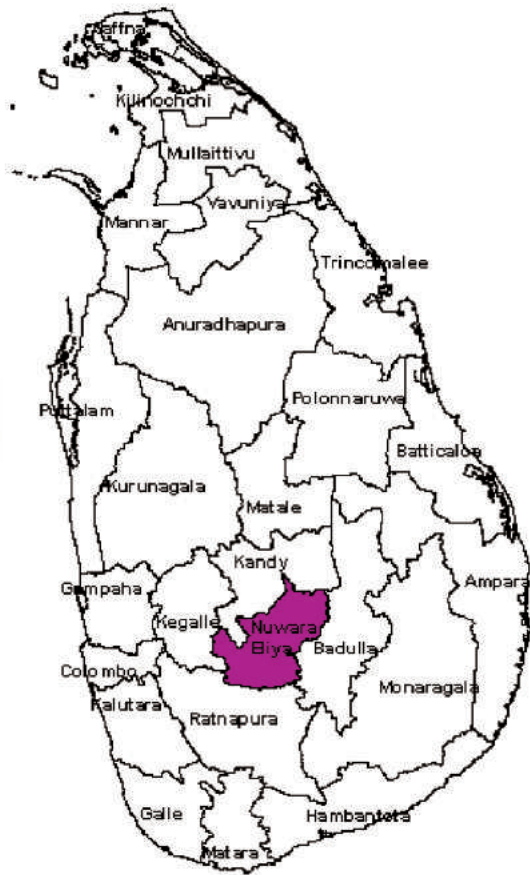
**Extent = 0.25ac**

<b>Operation</b>	<b>Qty/0.25ac</b>	<b>Input Cost Rs/0.25ac</b>	<b>Power Cost Rs/0.25ac</b>	<b>Mds 0.25ac</b>	<b>Labour Cost Rs/0.25ac</b>	<b>Total Cost (Rs.)</b>
Land preparation				15	12000	12000
Planting (No of suckers)	2000	400000		15	12000	412000
Fertilizer application				20	16000	16000
Cow dung (kg)	5000	15000				15000
Dolomite (kg)	400	2160				2160
TDM (kg)	800	19200				19200
Irrigation			4000	24	19200	23200
Weed control		12000		50	40000	52000
Harvesting				30	24000	24000
Total labour (Mds)				154		
<b>Total cost (Rs)</b>		<b>448360</b>	<b>4000</b>		<b>123200</b>	<b>575560</b>
Gross income from flowers (Rs)		960000				
Gross income from plants (Rs)		400000				
Total gross income (Rs)		1360000				
Net income (Rs)		784440				
<b>Related Information</b>						
<b>Yield -</b>						
No of flowers/2 years		192000				
No of plants/2 years		2000				
<b>Price -</b>						
Rs/flower		5				
Rs/plant		200				
Wage rate (Rs/day)		800				

# MADONNA LILY

(*Lilium candidum*)

Cultivated Areas of Madonna Lily



**Uses :** Madonna lily flowers are widely used in the cut flower industry.



**Ecological requirements :**

Temperature : 23 - 27 C°  
pH : 5.7 - 6.2

**Suitable Districts :** Nuwara Eliya

**Potential yield :** 4 flowers /plant/3month

**Spacing :** 30 cm x 45 cm

**Planting season :** September

**Availability :** Year round

**Crop - Madonna Lily**  
**District - Nuwara Eliya**

**Extent = 1000 sq.ft.**

Operation	Input		Power Cost Rs/1000 sq.ft.	Mds	Labour Cost Rs/1000 sq.ft.	Total Cost Rs/1000 sq.ft.
	Qty/1000 sq.ft.	Cost/ 1000 sq.ft.				
Construction of net house		200000		20	16000	216000
Land preparation				27	21600	21600
Tiles	650	9750				9750
Planting (Bulbs kg)	50	75000		2	1000	76000
Fertilizer application						
Hydro (kg)	20	2600		3	2400	5000
Cow dung (kg)	5000	15000				15000
Dolomite (kg)	200	1080		4	3200	4280
Pest control		13000		4	3200	16200
Manual weeding				24	19200	19200
Irrigation		75000	8000	36	28800	111800
Fixing supports		5000		6	4800	9800
Harvesting				20	16000	16000
Land rent		5000				5000
Total labour (Mds)				146		
<b>Total Cost (Rs)</b>		<b>401430</b>	<b>8000</b>		<b>116200</b>	<b>525630</b>
Gross income from flowers (Rs)		625000				
Gross income from bulbs (Rs)		300000				
Total gross income (Rs)		925000				
Net income (Rs)		399370				
<b>Related Information</b>						
<b>Yield</b>						
No of flowers in 18 month	25000					
Bulb kg in 18 month	200					
			<b>Price –</b>			
			Rs/flower		25	
			Rs/bulb		1500	
			Wage rate (Rs/day)		800	
			Net house size (sq. ft)		1000	
			Total cost of construction the net house (Rs.)		216000	
			Total cost of Irrigation		75000	
			Life span – Structure		5 years	
			- Net		10 years	
			- Irrigation system		10 years	