

JUNAGADH AGRICULTURAL UNIVERSITY, JUNAGADH

E. Plantation and Fruit crops

Sr. No.	Variety/ Hybrid
11.	Coconut
	11.1 Hybrid T x D (Mahuva)
12.	Custard Apple
	12.1 Gujarat Junagadh Custard Apple 1 (GJCA 1)
13.	Papaya
	13.1 Gujarat Junagadh Papaya 1 (GJP 1)

11. Coconut

11.1 Coconut Hybrid T x D (Mahuva)

1	Name of crop	Coconut
2	Botanical name	<i>Cocos nucifera</i> L.
3	Name of variety	Hybrid T x D (Mahuva)
4	Parentage with details of its pedigree	West Cost Tall x Dwarf Green
5	Breeding method	Hybridization followed by method of selection.
6	Year of release	2005-06
7	Gazette notification	S. O. 2978 (E) & Date: 26.12.2008
8	Acknowledge particulars about the submission of germplasm samples with NBPGR	NA
9	Potential yield (nuts/palm/year)	66
10	Average yield (nuts/palm/year)	43
11	Recommended regions/areas of adoption	Coastal area of the Gujarat State.
12	Characteristics/Distinguishing morphological in brief:	
	• Plant height (m)	5.66 (Semi tall)
	• First flowering	3 year and 4 month
	• Number of leaves/palm	23
	• Trunk diameter (cm)	94
	• Number of inflorescence/palm/year	10
	• Number of female buttons/palm/year	180
	• Weight of nut (g)	1086
	• Weight of kernel (g)	111
	• Length of nut (cm)	20
	• Width of nut (cm)	13
13	Agronomical Practices	<ul style="list-style-type: none"> • Planting time: June-July • Spacing: 7.5 x 7.5 m. • Fertilizer: N:P:K 7.5 : 4.7 : 2.5 kg/palm/year.
14	Specific attributes/Describe at least two identifiable characteristics of the variety	Semi tall, early bearing, buckling habit and nuts are larger with round in shape. The hybrid is alternative/ replacement for existing hybrid D x T (Mahuva) problems for seed production.
15	Quality / Nutritional / Other features	-
16	Diseases and pests resistance (give details of any resistance to)	Moderately tolerant to salt, drought, bud rot and <i>eriophyid</i> mite.

	pest or diseases including races)	
17	Days to maturity/Maturity group	Early maturity group.
18	Originating source/ Institute	Agricultural Research Station (Fruit crops), Junagadh Agricultural University, Mahuva-364 290 (Gujarat)



12. Custard Apple:

12.1 Gujarat Junagadh Custard Apple 1 (GJCA 1)

1	Name of crop	Custard Apple
2	Botanical name	<i>Annona squamosa</i> L.
3	Name of variety	Gujarat Junagadh Custard Apple 1 (GJCA 1)
4	Parentage with details of its pedigree	Selection 18
5	Breeding method	Clonal selection
6	Year of release	2008-09
7	Gazette notification	Awaited
8	Acknowledge particulars about the submission of germplasm samples with NBPGR	NA
9	Potential fruit yield (kg/tree)	37.03
10	Average fruit yield (kg/tree)	26.81
11	Recommended regions/areas of adoption	Saurashtra region of the Gujarat State.
12	Characteristics/Distinguishing morphological in brief:	
	• Plant height (m)	4.61
	• Plant spread (N-S) (m)	5.11
	• Plant spread (E-W) (m)	5.22
	• Days to 1 st Reproductive flush	46.67
	• Days to 2 nd Reproductive flush	98.67
	• Days to 3 rd Reproductive flush	134.17
	• Days to fruit setting	24.75
	• Days to maturity	62.92
	• Fruit weight (g)	139.89
	• Fruit length (cm)	6.80
	• Fruit girth (cm)	7.06
	• Number of fruits per tree	214.92
	• Pulp weight per fruit (g)	42.55
	• Skin weight per fruit (g)	66.13
	• No. of seeds per fruit	22.10

•	Seed weight per fruit (g)	9.35
•	Pulp-seed ratio	4.62
•	Pulp-skin ratio	0.66
13	Agronomical Practices	<ul style="list-style-type: none"> • Transplanting time: June-July • Spacing: 6 x 6 m. • No. of plants per hectare: 277 • Fertilizer: N:P:K 200 : 100 : 50 g/plant.
14	Specific attributes/Describe at least two identifiable characteristics of the variety	Tree is more vigorous. The fruits are medium in size, more number of fruits and fruit yield/tree with less number of seeds per fruit and higher pulp.
15	Quality / Nutritional / Other features	<ul style="list-style-type: none"> • Reducing sugar (%) : 12.38 • Total sugar (%) : 16.55 • TSS (B⁰) : 23.49
16	Diseases and pests resistance (give details of any resistance to pest or diseases including races)	Low black spot infection.
17	Days to maturity/Maturity group	63 days/medium maturity group.
18	Originating source/ Institute	Department of Horticulture, Junagadh Agricultural University, Junagadh-362 001 (Gujarat).



13. Papaya

13.1 Gujarat Junagadh Papaya 1 (GJP 1)

1	Name of crop	Papaya
2	Botanical name	<i>Carica papaya</i> L.
3	Name of variety	Gujarat Junagadh Papaya 1 (GJP 1)
4	Parentage with details of its pedigree	Selection from local culture No. 4
5	Breeding method	Mass selection
6	Year of release	2016-17
7	Gazette notification	-
8	Acknowledge particulars about the submission of germplasm samples with NBPGR	IC: 623504
9	Potential fruit yield (kg/tree)	37.08 (92.69 t/ha.)
10	Average fruit yield (kg/tree)	33.81 (84.52 t/ha.)
11	Recommended regions/areas of adoption	Saurashtra region of the Gujarat State.
12	Characteristics/Distinguishing morphological in brief:	
•	Plant height (m)	172.28
•	No. of leaves per plant	36.38
•	Bearing height (cm)	66.17
•	Stem girth (cm)	31.56
•	No. of nodes to first flower	18.44
•	Length of inter node (cm)	4.48
•	Days to flowering (days)	93.12

•	No. of flower bud/node (female)	5.73
•	Length of pistillate flower bud (cm)	4.18
•	Length of main flower bud peduncle (cm)	1.98
•	Length of main flower stalk in male plant (cm)	31.46
•	Length of staminate flower peduncle (cm)	2.06
•	Length of staminate flower bud (cm)	1.92
•	Fruit length (cm)	22.97
•	Fruit girth (cm)	44.65
•	Number of fruits per tree	36.38
•	Fruit weight (kg)	1.65
•	Pulp weight per fruit (g)	1327.93
•	Peel weight per fruit (g)	238.38
•	Seed weight per fruit (g)	97.37
•	Pulp-seed ratio	1230.56
•	Pulp-peel ratio	5.58
•	Shelf life (Days)	2.99
•	RSPV (%) at harvest	15.49
13	Agronomical Practices	<ul style="list-style-type: none"> • Time of transplanting: March-April. • Spacing: 1.8 x 1.8 m. • No. of plants per hectare : 3000 • Fertilizer: N:P:K 200 : 200 : 250 g/plant.
14	Specific attributes/Describe at least two identifiable characteristics of the variety	Medium size fruit with oblong shape and green colour. The pulp is with soft palatable texture. It has also good pulp colour i.e. orange yellow with sweet taste.
15	Quality / Nutritional / Other features	<ul style="list-style-type: none"> • Reducing sugar (%) : 5.54 • Non reducing sugar (%) : 2.41 • Total sugar (%) : 7.95 • TSS (B⁰) : 11.92
16	Diseases and pests resistance (give details of any resistance to pest or diseases including races)	The papaya Ring Spot Virus is less.
17	Days to maturity/Maturity group	232 days/early maturity group
18	Originating source/ Institute	Department of Horticulture, Junagadh Agricultural University, Junagadh-362 001 (Gujarat)

