JUNAGADH AGRICULTURAL UNIVERSITY, JUNAGADH

F. Vegetable crops

Sr. No.	Variety/ Hybrid	
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	14.2 Gujarat Tomato 6 (GT 6)	
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	16.4 Gujarat Junagadh Okra Hybrid 3* (GJOH 3)	
	16.5 Gujarat Junagadh Okra Hybrid 4* (GJOH 4)	
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	19.1 Gujarat Sponge Gourd 1* (GSG 1)	
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	20.1 Gujarat Junagadh Ridge Gourd Hybrid 1(GJRGH 1)	
21.	Indian Bean	
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* D 1	21.2 Gujarat Junagadh Indian Bean 2 (GJIB 2)	

^{*} Released at state and national level.

14. Tomato

14.1 Junagadh Tomato 3 (JT 3)

1	Name of crop	Tomato
2	Botanical name	Lycopercicum esculentum L.
3	Name of variety	Junagadh Tomato 3 (JT 3)
4	Parentage with details of its	The genotype was selection from the local collection
	pedigree	made from surrounding area of Kuwadava village of
		Rajkot district.
5	Breeding method	Pure line selection.
6	Year of release	2007-08
7	Gazette notification	Awaited
8	Acknowledge particulars about	JT 3 (JTL 02-7) IC: 565031
	the submission of germplasm	
	samples with NBPGR	
9	Potential yield (q/ha)	415.5
10	Average yield (q/ha)	384.6

1.1	Decembered to sions/areas of	The tempte veniety is suitable for cultivation under
11	Recommended regions/areas of adoption	The tomato variety is suitable for cultivation under open field condition in late <i>kharif</i> and <i>rabi</i> season
	adoption	for Saurashtra region.
12	Characteristics/Distinguishing mor	
•	Plant height (cm)	69.5
•	Plant spread (cm)	36.9
•	Days to flower	47
•	Days to first picking	80
•	Number of branches	5.64
•	Number of locules	4.29
•	Fruit length (cm)	7.45
•	Fruit girth (cm)	16.08
•	Fruit weight (g)	54.9
•	No. of fruit/plant	31.52
•	Fruit yield/plant (kg)	1.731
•	Fruit colour	Red
•	Fruit shape	Flat round
•	Plant habit	Determinate
13	Agronomical Practices	Time of T. P.: August-September
		• Spacing: 75 x 60 cm.
		• Seed rate: 300 to 350 g/ha.
		• Fertilizer: N:P:K 75 : 37.5 : 62.5 kg/ha.
14	Specific attributes/Describe at	The plant is bushy type and heavy fruit bearer, the
	least two identifiable	plant fruit has thick skin, 4-5 locules high T. S. S.
	characteristics of the variety	content. The fruit is medium in size, flat round in
15	Quality / Nutritional / Other	shape with attractive red colour.
13	features	T. S. S. (%): 7.33Total soluble sugar (%): 1.85
	Teatures	Total soluble sugar (%): 1.85Ascorbic Acid (mg/100g): 25.87
		 Ascorbic Acid (liig/100g): 23.87 Carotenoids (mg/100g): 12.40
		 Lycopine (mg/100g): 4.93
		• Acidity (%): 1.70
		• Dry matter (%): 7.50
		• Peel colour (od/g) : 1.39
16	Diseases and pests resistance	The leaf curl virus, leaf blight, and tomato spotted
	(give details of any resistance to	wilt virus are less in the variety. The fruit borer
	pest or diseases including races)	damage is less.
17	Days to last picking/ Maturity	155/ Medium maturity group.
	group	
18	Originating source/ Institute	Vegetable Research Station, Junagadh Agricultural
		University, Junagadh-362 001 (Gujarat)







14.2 Guiarat Tomato 6 (GT 6)

14.2 (Gujarat Tomato 6 (GT 6)	
1	Name of crop	Tomato
2	Botanical name	Lycopercicum esculentum L.
3	Name of variety	Gujarat Tomato 6 (GT 6)
4	Parentage with details of its	Junagadh Ruby x JT 3
	pedigree	(R-05-6-B-8-6-B-B)
5	Breeding method	Hybridization followed by pedigree method of
		selection
6	Year of release	2017-18
7	Gazette notification	Awaited
8	Acknowledge particulars about	GT 6 (JTL-12-07) IC : 625670
	the submission of germplasm	
	samples with NBPGR	
9	Potential yield (q/ha)	356.70
10	Average yield (q/ha)	316.05
11	Recommended regions/areas of	Tomato growing area of Gujarat state during late
	adoption	kharif-rabi season
12	Characteristics/Distinguishing morp	
•	Plant height (cm)	64.42
•	Plant spread (cm)	47.59
•	Days to first picking	99
•	Days to last picking	143
•	No. of pickings	10
•	Number of branches	3.20
•	Number of locules	4.08 (3-4)
•	Fruit length (cm)	4.42
•	Fruit girth (cm)	16.15
•	Fruit weight (g)	61.76
•	No. of fruit/plant	52
•	Fruit colour	Red
•	Fruit shape	Flat round
•	Plant habit	Determinate
13	Agronomical Practices	• Time of T. P. : July/August: for late <i>kharif</i>
13	1 Igronomical Fractices	Sep./October: for <i>Rabi</i>
		• Spacing: 75 x 60 cm.
		 Seed rate: 300 to 350 g/ha.
		 Seed rate: 300 to 350 g/ha. Fertilizer: N:P:K 75: 37.5: 62.5 kg/ha.
14	Specific attributes/ Describe at	• Fruits are medium in size, flat round in shape
17	least two identifiable	with groove and attractive red colour.
	characteristics of the variety	 Leaves are slightly broad and slightly green in
		colour.
		 Branches are profuse in nature.
		Flowers are pale yellow in colour.
15	Quality / Nutritional / Other	 Trowers are pare yellow in colour. T. S. S. (%): 6.50
13	features	T (1 1 1 1 (0/) 4 0 C
		 Total soluble sugar (%): 4.06 Ascorbic Acid (mg/100g): 21.59
		1 (100) 170
		• Acidity (%): 0.27
16	Disasses and nosts resistance	• Protein: 0.39 The reaction against leaf curl was found less and the
16	Diseases and pests resistance	The reaction against leaf curl was found less and the
	(give details of any resistance to	damage due to fruit borer and leaf miner was found

	pest or diseases including races)	superior to check varieties.
17	Days to last picking/Maturity	143 (140-154)/Early maturity group.
	group	
18	Originating source/ Institute	Vegetable Research Station, Junagadh Agricultural
		University, Junagadh-362 001 (Gujarat)







15. Brinjal 15.1 Junagadh Brinjal Green Round 1 (JBGR 1)

1	Name of crop	Brinjal
2	Botanical name	Solanum melongena L.
3	Name of variety	Junagadh Brinjal Green Round 1 (JBGR 1)
4	Parentage with details of its	The genotype was collection from Ajab village of
	pedigree	Junagadh district and was maintained in germplasm
		as line No. 16 in the year 1999.
5	Breeding method	Pure line selection.
6	Year of release	2005-06
7	Gazette notification	S. O. 2978 (E) & Date: 26.12.2008
8	Acknowledge particulars about	JBGR 1 (JBGR-99-5) IC: 565030
	the submission of germplasm	
	samples with NBPGR	400.71
9	Potential yield (q/ha)	480.71
10	Average yield (q/ha)	401.07
11	Recommended regions/areas of	The brinjal variety is suitable for cultivation during
	adoption	late <i>kharif</i> and <i>rabi</i> season for Saurashtra and Middle Gujarat.
12	Characteristics/Distinguishing mor	
12	Plant height (cm)	63.0
•	Plant spread (cm)	54.98
•	Days to first picking after T.P.	66
	Number of branches/plant	4.27
•	-	14.26
•	Fruit length (cm)	26.67
•	Fruit girth (cm)	
•	Fruit weight (g)	193.0
•	No. of fruit/plant	18.06
•	Fruit yield/plant (kg)	3.383
•	Fruit colour	Green
•	Fruit shape	Round
•	Fruit size	Medium to long
•	Plant habit	Semi spreading
13	Agronomical Practices	Time of T. P.: August-September
		• Spacing: 90 x 60 cm.
		• Seed rate: 350 g/ha.
		• Fertilizer: N:P:K 100 : 37.5 : 37.5 kg/ha.
14	Specific attributes/Describe at	Fruit are medium to big in size with round shape,
	least two identifiable	attractive green colour and good shining. Calyx and

	characteristics of the variety	pedicle are green and medium in size. Moderate grooves are present on fruits.
15	Quality / Nutritional / Other features	 T. S. S. (%): 5.88 Total soluble sugar (%): 3.82 Acidity (%): 1.64 Protein (%): 1.54 Glycoalkaloid (od/g.): 0.28 Peel colour (od/g.): 2.22 Poly phenol oxidase (od/min/g.): 1.83 Total phenol (mg/100g.): 50.70
16	Diseases and pests resistance (give details of any resistance to pest or diseases including races)	The variety showed lower incidence of little leaf, jassids, whitefly, fruit borer.
17	Days to last picking/Maturity group	169/ Medium maturity group.
18	Originating source/ Institute	Vegetable Research Station, Junagadh Agricultural University, Junagadh-362 001 (Gujarat)





15.2 Gujarat Junagadh Brinjal 2 (GJB 2)

13.2	zujarat Junagaun Brinjai 2 (GJB 2	/
1	Name of crop	Brinjal
2	Botanical name	Solanum melongena L.
3	Name of variety	Gujarat Junagadh Brinjal 2 (GJB 2)
4	Parentage with details of its	JNDB-67 x Line No. JNDB-N-6
	pedigree	
5	Breeding method	Hybridization followed by pedigree method of
		selection.
6	Year of release	2009-10
7	Gazette notification	S. O. 2277 (E) & Date: 17.08.2015
8	Acknowledge particulars about	GJB 2 (JBR 02-11) IC: 573507
	the submission of germplasm	
	samples with NBPGR	
9	Potential yield (q/ha)	423.13
10	Average yield (q/ha)	342.94
11	Recommended regions/areas of	The brinjal variety is suitable for cultivation during
	adoption	late <i>kharif</i> for Gujarat state.
12	Characteristics/Distinguishing mor	phological in brief:
•	Plant height (cm)	53.96
•	Plant spread (cm)	60.58
•	Days to first picking after T.P.	60.6
•	Number of branches/plant	4.11
•	Fruit length (cm)	11.88
•	Fruit girth (cm)	14.91
•	Fruit weight (g)	68.4
•	No. of fruit/plant	26.17

•	Fruit yield/plant (kg)	1.790
•	Fruit colour	Pink purple
•	Fruit shape	Medium long
•	Fruit size	Medium
•	Plant habit	Semi spreading
13	Agronomical Practices	• Time of T. P.: August for late <i>kharif</i> and October
		for <i>rabi</i> season.
		• Spacing: 90 x 60 cm
		• Seed rate: 300 to 350 g/ha.
		• Fertilizer: N:P:K 100 : 37.5 : 37.5 kg/ha.
14	Specific attributes/Describe at	Fruit are medium long in shape and size with pink
	least two identifiable	purple colour and good shining. Calyx and pedicle
	characteristics of the variety	are green and medium in size. White dots are present
		on fruit tip surface and fruit pulp is white with less
		seeds.
15	Quality / Nutritional / Other	• T. S. S. (%): 7.00
	features	• Total soluble sugar (%): 3.95
		• Acidity (%): 1.85
		• Protein (%): 1.67
		• Glycoalkaloid (od/g.): 0.36
		• Peel colour (od/g.): 2.43
		• Poly phenol oxidase (od/min/g.) : 1.42
		• Total phenol (mg/100g.) : 50.51
16	Diseases and pests resistance	The variety has good tolerance against little leaf
	(give details of any resistance to	diseases and fruit borer, jassids, whitefly damage is
	pest or diseases including races)	also less.
17	Days to last picking/Maturity	146/ Medium maturity group.
10	group	
18	Originating source/ Institute	Vegetable Research Station, Junagadh Agricultural
		University, Junagadh-362 001 (Gujarat)







15.3 Gujarat Junagadh Brinjal 3 (GJB 3)

1	Name of over	
1	Name of crop	Brinjal
2	Botanical name	Solanum melongena L.
3	Name of variety	Gujarat Junagadh Brinjal 3 (GJB 3)
4	Parentage with details of its	JNDB-37 x JNDB-92
	pedigree	(1999-97-69-25-23-20-19)
5	Breeding method	Hybridization followed by pedigree method of
		selection.
6	Year of release	2011-12
7	Gazette notification	Awaited
8	Acknowledge particulars about	GJB 3 (JBGR 06-7) IC: 589770
	the submission of germplasm	
	samples with NBPGR	
9	Potential yield (q/ha)	421.70

10	Average yield (a/ha)	393.88
11	Average yield (q/ha) Recommended regions/areas of	The brinjal variety is suitable for cultivation during
11	adoption	late <i>kharif</i> season for Gujarat state.
12	Characteristics/Distinguishing mor	
12	Plant height (cm)	45.55
•	Plant spread (cm)	61.51
_	Days to first picking after T.P.	75.80
•		3.64
•	Number of branches/plant	
•	Fruit length (cm)	13.43
•	Fruit girth (cm)	22.02
•	Fruit weight (g)	124.8
•	No. of fruit/plant	16.04
•	Fruit yield/plant (kg)	1.903
•	Fruit colour	Green
•	Fruit shape	Oval
•	Fruit size	Medium
•	Fruit cross section	Few groove
•	Fruit position	Pendant
•	Plant growth habit	Semi spreading
13	Agronomical Practices	• Time of T. P.: 15 th August to 15 th September for
	-	late <i>kharif</i> season.
		• Spacing: 90 x 60 cm.
		• Seed rate: 300 to 350 g/ha.
		• Fertilizer: N:P:K 100 : 37.5 : 37.5 kg/ha.
14	Specific attributes/Describe at	Fruit are medium to big in size with oval shape.
	least two identifiable	Fruit are green in colour and good shining. Fruit
	characteristics of the variety	pulp is creamy white with less seeds and fruit
		surface is smooth.
15	Quality / Nutritional / Other	• T. S. S. (%): 9.00
	features	• Total soluble sugar (%): 3.07
		• Acidity (%): 1.41
		• Protein (%): 1.48
		• Glycoalkaloid (od/g.): 0.4
		• Peel colour (od/g.): 1.48
		• Poly phenol oxidase (od/min/g.) : 1.36
		• Total phenol (mg/100g.) : 42.84
16	Diseases and pests resistance	The variety is good tolerance against little leaf
	(give details of any resistance to	diseases and fruit borer, jassids, whitefly damage is
	pest or diseases including races)	also less.
17	Days to last picking/Maturity	160/ Medium maturity group.
1,	group	200, Modern Manarity Broup.
18	Originating source/ Institute	Vegetable Research Station, Junagadh Agricultural
_		University, Junagadh-362 001 (Gujarat)
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15.4 Gujarat Junagadh Long Brinjal 4 (GJLB 4)

15.4 (Gujarat Junagadh Long Brinjal 4 (
1	Name of crop	Brinjal
2	Botanical name	Solanum melongena L.
3	Name of variety	Gujarat Junagadh Long Brinjal 4 (GJLB 4)
4	Parentage with details of its	GBL-1 x Junagadh Oblong
	pedigree	
5	Breeding method	Hybridization followed by pedigree method of
		selection.
6	Year of release	2014-15
7	Gazette notification	S. O. 3666 (E) & Date: 06.12.2016
8	Acknowledge particulars about	GJLB 4 (JBL-08-8) IC: 612167
	the submission of germplasm	
	samples with NBPGR	
9	Potential yield (q/ha)	448.42
10	Average yield (q/ha)	396.03
11	Recommended regions/areas of	The brinjal variety is suitable for cultivation during
	adoption	late kharif season for Zone VI (Arid western plains
		of Rajasthan, Gujarat, Haryana and Delhi).
12	Characteristics/Distinguishing mor	
•	Plant height (cm)	62.22
•	Plant spread (cm)	73.15
•	Days to first picking after T.P.	67
•	Number of branches/plant	3.31
•	Fruit length (cm)	13.81
•	Fruit girth (cm)	16.75
•	Fruit weight (g)	102.10
•	No. of fruit/plant	21
•	Fruit yield/plant (kg)	2.140
•	Fruit colour	Light purple
•	Fruit shape of apex	Round
•	Fruit shape of general	Long
•	Fruit size	Small
•	Fruit glossiness at harvest	Strong
	maturity	
•	Fruit stripes and patches	Absent
•	Plant growth habit	Semi spreading
13	Agronomical Practices	• Time of T. P.: 1 st to 15 th October
		• Spacing: 90 x 60 cm or 90 x 45 cm.
		• Seed rate: 400 to 500 g/ha.
		• Fertilizer: N:P:K 100 : 37.5 : 37.5 kg/ha.
14	Specific attributes/Describe at	Fruit are medium in size with long shape. Fruit are
	least two identifiable	light purple in colour with good shining. Fruit pulp
	characteristics of the variety	is white with less seeds and fruit surface is smooth.
15	Quality / Nutritional / Other	• T. S. S. (%): 8.50
	features	• Total soluble sugar (%): 3.36
		• Acidity (%): 1.19
		• Protein (%): 1.51
		• Glycoalkaloid (od/g.): 0.34
		• Peel colour (od/g.) : 3.35
		• Poly phenol oxidase (od/min/g.): 1.30
		• Total phenol (mg/100g.): 38.85
	1	r (

16	Diseases and pests resistance	The reaction as against little leaf diseases and fruit
	(give details of any resistance to	borer, jassids, whitefly damage is also less.
	pest or diseases including races)	
17	Days to last picking/Maturity	159/ Medium maturity group.
	group	
18	Originating source/ Institute	Vegetable Research Station, Junagadh Agricultural
		University, Junagadh-362 001 (Gujarat)







15.5 Gujarat Junagadh Brinjal Hybrid 4 (GJBH 4)

	Nome of oren			
2	Name of crop Botanical name	Brinjal Solanum melongena	T	
3	Name of variety	Gujarat Junagadh Bı		рц 4)
4	Parentage with details of its	Line No. JBR-2-11		
+	pedigree	Line No. JDK-2-11	Line No. JDR-03-	10
5	Breeding method	Heterosis breeding		
6	Year of release	2014-15		
7	Gazette notification	S. O. 3666 (E) & Da	te: 06.12.2016	
8	Acknowledge particulars about	Accession		IC No.
	the submission of germplasm	1) GJBH 4 (JBI	H-07-1)	612170
	samples with NBPGR	2) JBR-2-11 (Fe	emale)	612171
	_	3) JBR-3-16 (m	alel)	612172
9	Potential yield (q/ha)	547.88		
10	Average yield (q/ha)	428.01		
11	Recommended regions/areas of	The brinjal hybrid is		
	adoption	kharif season for Sa	urashtra and Middle	e Gujarat.
12	Characteristics/Distinguishing m			
	Description of hybrid parents	(GJBH 4)	JBR-2-11	JBR-03-16
		JBH-07-1		
	Plant height (cm)	54.74	47.19	62.39
	Plant spread (cm)	69.28	54.94	53.38
	Days to first picking after T.P.	64	61	51
•	Days to last picking after T.P.	153	146	145
•	Number of branches/plant	3.53	3.87	3.14
•	Fruit length (cm)	14.09	11.25	12.30
•	8 \ /	16.24	14.28	17.38
•	Fruit weight (g)	79.30	63.00	85.20
•	No. of fruit/plant	28	26	24
•	Fruit yield/plant (kg)	2.23	1.79	2.04
•	Leaf length (cm)	12.5	19.5	15.0
•	Leaf width (cm)	9.0	7.0	8.0
•	Flower colour	Light purple	Light purple	Dark purple
•	Leaf margin	Pointed	Sinuate	Pointed
•	Leaf colour of vein	Light purple	Purple	Dark purple
•	Fruit colour	Deep yellow	Purple yellow	Yellow
•	Fruit colour of flesh	Greenish	Whitish	Greenish
	1	1		

•	Fruit shape of apex	Flattented	Flattented	Flattented
•	Fruit shape of general	Oblong	Oblong	Oblong
•	Fruit size	Medium	Medium	Medium
•	Fruit glossiness at harvest maturity	Strong	Strong	Medium
•	Fruit stripes and patches	Absent	Absent	Absent
•	Plant growth habit	Erect	Semi-spreading	Erect
13	Agronomical Practices	• Seed rate: 400 to	cm or 90 x 45 cm.	t∕ha.
15	Specific attributes/Describe at least two identifiable characteristics of the variety Quality / Nutritional / Other features	Fruit are medium in pink purple in color white with less seed. T. S. S. (%): 9.3 Total soluble sug	ur with good shining and fruit surface is	ng. Fruit pulp is
		Total phenol (mg	8 d/g.): 0.35 g.): 2.71 ase (od/min/g.): 1.3 g/100g.): 38.18	
16	Diseases and pests resistance (give details of any resistance to pest or diseases including races)	The reaction as ag borer, jassids, white		
17	Days to last picking/Maturity group	153/ Medium matur	ity group.	
18	Originating source/ Institute	Vegetable Research University, Junagad	_	_







15.6 Gujarat Round Brinjal 5 (GRB 5)

15.0	Gujarat Koung Drinjar 3 (GKD 3)		
1	Name of crop	Brinjal	
2	Botanical name	Solanum melongena L.	
3	Name of variety	Gujarat Round Brinjal 5 (GRB 5)	
4	Parentage with details of its	JBR-03-16 x JBGR-06-07	
	pedigree	(R-06-7-B-3-2-B-B)	
5	Breeding method	Hybridization followed by pedigree method of	
		selection.	
6	Year of release	2017-18	
7	Gazette notification		
8	Acknowledge particulars about	GRB 5 (JB-12-06) IC: 625671	
	the submission of germplasm		
	samples with NBPGR		

9	Potential yield (q/ha)	471.93
10	Average yield (q/ha)	395.04
11	Recommended regions/areas of	Brinjal growing area of the Gujarat state during late
	adoption	kharif-rabi season
12	Characteristics/Distinguishing morp	
•	Plant height (cm)	70.33
•	Plant spread (cm)	80.88
•	Days to first picking after T.P.	64
•	Days to last picking after T.P.	163
•	Number of branches/plant	3.40
•	Fruit length (cm)	10.13
•	Fruit girth (cm)	17.95
•	Fruit weight (g)	87.68
•	No. of pickings	15
•	No. of fruit/plant	32
•	Fruit colour	Light purple
•	Fruit shape of apex	Round
•	Fruit shape of general	Round
•	Fruit size	Medium
•	Fruit glossiness at harvest	Medium
	maturity	
•	Fruit stripes and patches	Present
•	Plant growth habit	Erect
•	Time of physiological ripeness	Early
13	Agronomical Practices	• Time of T. P.: 15 th August to 15 th September
		• Spacing: 90 x 60 cm
		• Seed rate: 300 to 350 g/ha.
		• Fertilizer: N:P:K 100 : 37.5 : 37.5 kg/ha.
14	Specific attributes/Describe at	Fruits are medium in size with round shape.
	least two identifiable	Fruit pulp is white with less seed.
	characteristics of the variety	• Fruits are green in colour with purple shadow
		strips and good shining
		Plants are medium in size and erect type.
15	Quality / Nutritional / Other	• T. S. S. (%): 9.00
	features	• Total soluble sugar (%): 4.12
		• Acidity (%): 0.12
		• Protein (%): 0.89
		• Glycoalkaloid (od/g.): 0.47
		• Peel colour (od/g.) : 2.92
		• Poly phenol oxidase (od/min/g.): 1.40
1.0	D: 1	• Total phenol (mg/100g.) : 28.12
16	Diseases and pests resistance	With respect to the damage due to jassids, whitefly
	(give details of any resistance to	and % fruit borer damage, the proposed entry was
17	pest or diseases including races) Days to last picking/Maturity	found superior than check varieties. 163/ Medium maturity group.
1 /	group	105/ McGrain maturity group.
18	Originating source/ Institute	Vegetable Research Station, Junagadh Agricultural
		University, Junagadh-362 001 (Gujarat)
L		







16. Okra

16.1 Gujarat Okra 3 (GO 3)

	NI C	01
1	Name of crop	Okra
2	Botanical name	Abelmoschus esculentus (L.) Moench
3	Name of variety	Gujarat Okra 3 (GO 3)
4	Parentage with details of its	HRB 55 x Arka Anamika
	pedigree	
5	Breeding method	Hybridization followed by pedigree method of
		selection.
6	Year of release	2006-07
7	Gazette notification	Awaited
8	Acknowledge particulars about	GO 3 (JNDOL-03-1) IC: 553031
	the submission of germplasm	
	samples with NBPGR	
9	Potential yield (q/ha)	110.50 (Zone VII) and (162.76) Zone VIII
10	Average yield (q/ha)	86.68 (Zone VII) and (127.25 Zone) VIII
11	Recommended regions/areas of	The okra variety is suitable for cultivation during
	adoption	kharif season for semi-arid lava plateau and central
		high lands (Zone VII) comprising of Madhya
		Pradesh (Excluding Eastern Part) and Maharashtra
		stares and humid to semi-arid western Ghats and
		Karnataka plateau (Zone VIII) comprising of
		Karnataka, Kerala and Tamil Nadu states.
		Kamataka, Keraia and Tamii Nadu States.
12	Characteristics/Distinguishing mor	
12	Characteristics/Distinguishing mor	
-		phological in brief:
•	Plant height (cm)	phological in brief: 133
•	Plant height (cm) Days to 50 % flowering	rphological in brief: 133 47
•	Plant height (cm) Days to 50 % flowering Number of branches/plant Fruit length (cm)	rphological in brief: 133 47 2.17
•	Plant height (cm) Days to 50 % flowering Number of branches/plant Fruit length (cm) Fruit girth (cm)	rphological in brief: 133 47 2.17 13.43
•	Plant height (cm) Days to 50 % flowering Number of branches/plant Fruit length (cm) Fruit girth (cm) 10 fruit weight (g)	rphological in brief: 133 47 2.17 13.43 5.40 156
•	Plant height (cm) Days to 50 % flowering Number of branches/plant Fruit length (cm) Fruit girth (cm) 10 fruit weight (g) No. of fruit/plant	phological in brief: 133 47 2.17 13.43 5.40 156 18.99
•	Plant height (cm) Days to 50 % flowering Number of branches/plant Fruit length (cm) Fruit girth (cm) 10 fruit weight (g) No. of fruit/plant Intermodal length (cm)	rphological in brief: 133 47 2.17 13.43 5.40 156 18.99 1.56
•	Plant height (cm) Days to 50 % flowering Number of branches/plant Fruit length (cm) Fruit girth (cm) 10 fruit weight (g) No. of fruit/plant Intermodal length (cm) Fruit colour	rphological in brief: 133 47 2.17 13.43 5.40 156 18.99 1.56 Green
•	Plant height (cm) Days to 50 % flowering Number of branches/plant Fruit length (cm) Fruit girth (cm) 10 fruit weight (g) No. of fruit/plant Intermodal length (cm)	phological in brief: 133 47 2.17 13.43 5.40 156 18.99 1.56 Green • Sowing season: <i>Kharif</i>
•	Plant height (cm) Days to 50 % flowering Number of branches/plant Fruit length (cm) Fruit girth (cm) 10 fruit weight (g) No. of fruit/plant Intermodal length (cm) Fruit colour	phological in brief: 133 47 2.17 13.43 5.40 156 18.99 1.56 Green • Sowing season: <i>Kharif</i> • Spacing: 60 x 30 cm
•	Plant height (cm) Days to 50 % flowering Number of branches/plant Fruit length (cm) Fruit girth (cm) 10 fruit weight (g) No. of fruit/plant Intermodal length (cm) Fruit colour	phological in brief: 133 47 2.17 13.43 5.40 156 18.99 1.56 Green • Sowing season: <i>Kharif</i> • Spacing: 60 x 30 cm • Seed rate: 8 to 10 kg/ha.
•	Plant height (cm) Days to 50 % flowering Number of branches/plant Fruit length (cm) Fruit girth (cm) 10 fruit weight (g) No. of fruit/plant Intermodal length (cm) Fruit colour Agronomical Practices	phological in brief: 133 47 2.17 13.43 5.40 156 18.99 1.56 Green • Sowing season: <i>Kharif</i> • Spacing: 60 x 30 cm • Seed rate: 8 to 10 kg/ha. • Fertilizer: N:P:K 100 : 50 : 50 kg/ha.
•	Plant height (cm) Days to 50 % flowering Number of branches/plant Fruit length (cm) Fruit girth (cm) 10 fruit weight (g) No. of fruit/plant Intermodal length (cm) Fruit colour Agronomical Practices Specific attributes/Describe at	phological in brief: 133 47 2.17 13.43 5.40 156 18.99 1.56 Green • Sowing season: <i>Kharif</i> • Spacing: 60 x 30 cm • Seed rate: 8 to 10 kg/ha. • Fertilizer: N:P:K 100 : 50 : 50 kg/ha. The plant has deeply lobed (serrated) leaves, which
•	Plant height (cm) Days to 50 % flowering Number of branches/plant Fruit length (cm) Fruit girth (cm) 10 fruit weight (g) No. of fruit/plant Intermodal length (cm) Fruit colour Agronomical Practices Specific attributes/Describe at least two identifiable	phological in brief: 133 47 2.17 13.43 5.40 156 18.99 1.56 Green • Sowing season: <i>Kharif</i> • Spacing: 60 x 30 cm • Seed rate: 8 to 10 kg/ha. • Fertilizer: N:P:K 100 : 50 : 50 kg/ha.
13	Plant height (cm) Days to 50 % flowering Number of branches/plant Fruit length (cm) Fruit girth (cm) 10 fruit weight (g) No. of fruit/plant Intermodal length (cm) Fruit colour Agronomical Practices Specific attributes/Describe at least two identifiable characteristics of the variety	phological in brief: 133 47 2.17 13.43 5.40 156 18.99 1.56 Green • Sowing season: <i>Kharif</i> • Spacing: 60 x 30 cm • Seed rate: 8 to 10 kg/ha. • Fertilizer: N:P:K 100 : 50 : 50 kg/ha. The plant has deeply lobed (serrated) leaves, which is the special mark for identification of variety.
•	Plant height (cm) Days to 50 % flowering Number of branches/plant Fruit length (cm) Fruit girth (cm) 10 fruit weight (g) No. of fruit/plant Intermodal length (cm) Fruit colour Agronomical Practices Specific attributes/Describe at least two identifiable characteristics of the variety Quality / Nutritional / Other	phological in brief: 133 47 2.17 13.43 5.40 156 18.99 1.56 Green • Sowing season: <i>Kharif</i> • Spacing: 60 x 30 cm • Seed rate: 8 to 10 kg/ha. • Fertilizer: N:P:K 100 : 50 : 50 kg/ha. The plant has deeply lobed (serrated) leaves, which
13	Plant height (cm) Days to 50 % flowering Number of branches/plant Fruit length (cm) Fruit girth (cm) 10 fruit weight (g) No. of fruit/plant Intermodal length (cm) Fruit colour Agronomical Practices Specific attributes/Describe at least two identifiable characteristics of the variety	phological in brief: 133 47 2.17 13.43 5.40 156 18.99 1.56 Green • Sowing season: <i>Kharif</i> • Spacing: 60 x 30 cm • Seed rate: 8 to 10 kg/ha. • Fertilizer: N:P:K 100 : 50 : 50 kg/ha. The plant has deeply lobed (serrated) leaves, which is the special mark for identification of variety.

	(give details of any resistance to pest or diseases including races)	is less.
17	Days to last picking/Maturity	105/Medium maturity group.
	group	
18	Originating source/ Institute	Vegetable Research Station, Junagadh Agricultural
		University, Junagadh-362 001 (Gujarat)





16.2 Gujarat Okra Hybrid 2 (GOH 2)

	Gujarat Okta Hybrid 2 (GOH 2)			
1	Name of crop	Okra		
2	Botanical name		ulentus (L.) Moench	
3	Name of variety	Gujarat Okra Hyl	` /	
4	Parentage with details of its	KS-404 x HRB-1	.08-2	
	pedigree			
5	Breeding method	Heterosis breedin	ng	
6	Year of release	2008-09		
7	Gazette notification	` '	Date: 26.12.2008	
8	Acknowledge particulars about	Accession		
	the submission of germplasm	1) GOH 2 (J	· ·	
	samples with NBPGR	2) KS-404 (1	<i>'</i>	
		3) HRB-108	-2 (male) 560 ²	193
9	Potential yield (q/ha)	152.19		
10	Average yield (q/ha)	148.36		
11	Recommended regions/areas of		is suitable for cultiva	v i
	adoption		shtra and Middle & S	3
			ease in Zone II (V	
		/ /	njab, Tarai & Plain o	
			Rajasthan, Gujarat, H	
			(Excluding Eastern I	
		· · · · · · · · · · · · · · · · · · ·	III (Karnataka Kerala	and Tamii Nadu)
12	Characteristics/Distinguishing mo	at state and nation		
12	Descriptions of hybrid parents	GOH 2	KS-404	HRB-108-2
	Descriptions of flyorid parents	(JOH-02-2)	(Female)	(Male)
	Plant height (cm)	158.8	141.4	152.1
	• • • • • • • • • • • • • • • • • • • •	43.4	43.8	42.2
•	Days to 50 % flowering	24.5	18.4	22.3
•	No. of fruit/plant			
•	Fruit length (cm)	11.8	11.8	11.2
•	Fruit girth (cm)	5.8	6.1	5.5
•	10 fruit weight (g)	139	142	135
•	Intermodal length (cm)	6.7	6.5	6.8
•	Fruit colour	Green	Green	Green
•	Fruit size	Medium	Thick	Medium
•	Stem colour initial stage	Green	Green	Green
•	Stem colour at flowering &	Reddish	Reddish	Reddish
-	-	•		

	fruiting stage			
•	Leaf shape	Deeply lobbed serrated	Deeply lobbed serrated	Deeply lobbed serrated
•	Base of petals colour	Pinkish red in both the sides	Pinkish red only in the inner sides	Pinkish red in both the sides
13	Agronomical Practices	Sowing seasonSpacing: 60 xSeed rate: 8 toFertilizer: N:F	30 cm.	a.
14	Specific attributes/Describe at least two identifiable characteristics of the variety	at initial stage ir The fruit are g	eeply lobbed and serr n green and maturity reen, tender and at pinkish red on both si	stage in reddish. tractive. Base of
15	Quality / Nutritional / Other features	 Dry weight (% Moisture (%) Fiber (%): 0. Protein (%): 0. Acidity (%): Total Soluble 	6): 8.06 : 91.94 65 0.96	
16	Diseases and pests resistance (give details of any resistance to pest or diseases including races)		ases and jessids & po	od borer incidence
17	Days to last picking/Maturity group	110/Medium mat	urity group.	
18	Originating source/ Institute	_	rch Station, Junagadh gadh-362 001 (Gujara	•







16.3 Gujarat Junagadh Okra 3 (GJO 3)

1010	3.5 Gujarat bunagaun Okta 5 (GbO 5)		
1	Name of crop	Okra	
2	Botanical name	Abelmoschus esculentus (L.) Moench	
3	Name of variety	Gujarat Junagadh Okra 3 (GJO 3)	
4	Parentage with details of its	Arka Abhay x VRO-4	
	pedigree	(K-96-6-1-2-1-3-1-B)	
5	Breeding method	Hybridization followed by pedigree method of	
		selection.	
6	Year of release	2009-10	
7	Gazette notification	Awaited	
8	Acknowledge particulars about	GJO 3 (JOL-2K-19) IC: 565033	
	the submission of germplasm		
	samples with NBPGR		
9	Potential yield (q/ha)	184.47	
10	Average yield (q/ha)	150.52	

11	Recommended regions/areas of	The <i>kharif</i> okra growing areas of Gujarat state.
	adoption	
12	Characteristics/Distinguishing morp	
•	Plant height (cm)	151.1
•	Days to 50 % flowering	44.2
•	Number of branches/plant	2.37
•	Fruit length (cm)	11.70
•	Fruit girth (cm)	5.57
•	10 fruit weight (g)	128
•	No. of fruit/plant	19.0
•	Intermodal length (cm)	7.52
•	Fruit colour	Green
•	Stem colour at initial stage	Green
•	Stem colour at flowering &	Reddish
	fruiting stage	
•	Leaf shape	Deeply lobbed and serrated
13	Agronomical Practices	• Sowing season: <i>Kharif</i>
		• Spacing: 60 x 30 cm
		• Seed rate: 8 to 10 kg/ha.
		• Fertilizer: N:P:K 100 : 50 : 50 kg/ha.
14	Specific attributes/Describe at	The leaves are deeply lobbed and serrated. Stem
	least two identifiable	colour at initial stage in green and maturity stage is
	characteristics of the variety	reddish. The variety registered superior green fruit
1.7	0 11 (N : 11 01	yield, tender and attractive.
15	Quality / Nutritional / Other	• Dry weight (%): 8.70
	features	• Moisture (%): 91.30
		• Fiber (%): 0.69
		• Protein (%): 0.99
		• TSS (%): 7.50
		• Total Phenols (mg/100g) : 0.698
		• Total Soluble Sugar (%): 1.39
1.5		Ascorbic Acid (mg/100g): 0.29
16	Diseases and pests resistance	The YVMV disease incidence is less. The reaction
	(give details of any resistance to	to major pests like jessids, thrips, whiteflies & pod
17	pest or diseases including races)	borer damage is also less.
17	Days to last picking/Maturity	115/Medium maturity group.
10	Originating course/Institute	Vagatable Passagrah Station Junegadh Agricultural
18	Originating source/ Institute	Vegetable Research Station, Junagadh Agricultural University, Junagadh-362 001 (Gujarat)
		Omversity, Junagaun-302 001 (Gujarat)







16.4 Gujarat Junagadh Okra Hybrid 3 (GJOH 3)

_		= 0 · 1 · 0 · 0 · 1 · 1 · 1 · 1 · 1 · 1 ·	
	1	Name of crop	Okra
	2	Botanical name	Abelmoschus esculentus (L.) Moench
	3	Name of variety	Gujarat Junagadh Okra Hybrid 3 (GJOH 3)

4	Parentage with details of its	JF-108-2 x JM-03-1		
	pedigree	**		
5	Breeding method	Heterosis breeding		
6	Year of release	2010-11		
7	Gazette notification	S. O. 2277 (E) & Date: 1'		
8	Acknowledge particulars about	Accession	IC No.	
	the submission of germplasm	1) GJOH 3 (JOH-05-		
	samples with NBPGR	2) JF-108-2 (female)		
		3) JM-03-1 (male)	585610	
9	Potential yield (q/ha)	153.65		
10	Average yield (q/ha)	137.44		
11	Recommended regions/areas of	The <i>kharif</i> okra growing		
	adoption	Orissa, Andhra Prade		attisgarh), VI
		(Rajasthan, Gujarat, Har		
		(MP (Excluding Eastern)	part), Maharash	tra and Goa) at
		national level.		
12	Characteristics/Distinguishing me			
	Descriptions of hybrid parents	GJOH 3	JF-108-2	JM-03-1
		(JOH-05-9	(Female)	(Male)
•	Plant height (cm)	122.3	141.4	128.2
•	Days to 50 % flowering	40.5	41.8	42.2
•	Number of fruits per plant	18.6	16.4	15.3
•	Fruit length (cm)	11.5	11.8	10.6
•	Fruit girth (cm)	4.99	4.95	5.56
•	10 fruit weight (g)	1392	135	132
•	Intermodal length (cm)	5.41	6.52	5.68
	Fruit colour		Green	
12		Dark green		Dark green
13	Agronomical Practices	• Sowing season: <i>Khari</i>	<i>f</i>	
		• Spacing: 60 x 30 cm		
		• Seed rate: 8 to 10 kg/h		
		• Fertilizer: N:P:K 100		
14	Specific attributes/Describe at	The leaves are deeply lob		
	least two identifiable	at initial stage in green		_
	characteristics of the variety	The pods are smooth, da	rk green, tendei	and attractive
		in colour.		
15	Quality / Nutritional / Other	• Dry weight (%): 11.3	9	
	features	• Moisture (%): 88.61		
		• Fiber (%): 1.15		
		• Protein (%): 1.46		
		• TSS (%): 9.00		
		• Total Phenols (mg/100	0g): 0.593	
		• Total Soluble Sugar (9	•	
		• Ascorbic Acid (mg/10		
16	Diseases and pests resistance	The YVMV disease incid	•	The reaction to
	(give details of any resistance	major pests like jessids,		
	to pest or diseases including	damage is also less.		z zz pod ooror
	races)			
17	Days to last picking/Maturity	105/Medium maturity gro	oun.	
1/	group	105/1410diain matarity gre	,ωp.	
18	Originating source/ Institute	Vegetable Research Station	on. Junagadh A	ericultural
10	originating source, montate	University, Junagadh-362		51100110101
		Similar Sibility, Sumagadin 302	. Jor (Jujurui)	





16.5 Gujarat Junagadh Okra Hybrid 4 (GJOH 4)

	oujurut bunuguun omia myöria	1 (00011 1)		
1	Name of crop	Okra		
2	Botanical name	Abelmoschus esculent	tus (L.) Moench	
3	Name of variety	Gujarat Junagadh Oki	ra Hybrid 4 (GJC	OH 4)
4	Parentage with details of its	JF-55 x JOL-2K-19		
	pedigree			
5	Breeding method	Heterosis breeding		
6	Year of release	2014-15		
7	Gazette notification	Awaited		
8	Acknowledge particulars about	Accession	IC No.	
	the submission of germplasm	GJOH 4 (JOH-08-19)		
	samples with NBPGR	JF-55 (female)	611698	
		JOL-2K-19 (male)	611699	
9	Potential yield (q/ha)	143.36		
10	Average yield (q/ha)	140.00	11 0	
11	Recommended regions/areas of	The okra hybrid suit		
	adoption	season for Zone VI (
		Gujarat, Haryana and		
		Pradesh and Maharas	intra) release at	state and national
12	Characteristics/Distinguishing m	levels.		
12	Characteristics/Distinguishing medical Descriptions of hybrid parents	GJOH 4	JF-55	JOM-2K-19
	Descriptions of hybrid parents	(JOH-08-19	(Female)	(Male)
_	Plant height (cm)	109.50	90.10	95.50
•	Days to 50 % flowering	45.35	48.50	45.00
•	Days to first picking	53	55	52
•	Number of fruits per plant	20.51	15.16	18.30
•	Fruit length (cm)	11.89	10.68	10.38
•	Fruit girth (cm)	5.31	5.32	5.14
-	_	123	119	109
•	10 fruit weight (g) Fruit colour			
•	Truit coloui	Medium dark green, tender, long and	Dark green, tender, short	Light green, tender, medium
		attractive	tender, short	long
•	Leaf shape	Deeply lobbed and	Deeply	Deeply lobbed
	Lear snape	serrated	lobbed and	and serrated
		Bollatoa	serrated	una sonuca
13	Agronomical Practices	Sowing season: Ki		
		• Spacing: 60 x 30 c	•	
		• Seed rate: 8 to 10		
		• Fertilizer: N:P:K 1	•	ıa
14	Specific attributes/Describe at	The leaves are deeply		
1	least two identifiable	at seedling stage col		
	characteristics of the variety	fruiting stage colour	_	_
		medium dark green,		
L	I .		,	

		colour. Flower colour on base of the flower petal light
		red in colour.
15	Quality / Nutritional / Other	NA
	features	
16	Diseases and pests resistance	The YVMV disease incidence was less. The reaction to
	(give details of any resistance	major pests like jessids, thrips, whiteflies & pod borer
	to pest or diseases including	damage was also less.
	races)	
17	Days to last picking/Maturity	102/Medium maturity group.
	group	
18	Originating source/ Institute	Vegetable Research Station, Junagadh Agricultural
		University, Junagadh-362 001 (Gujarat)





16.6 Gujarat Okra 6 (GO 6)

10.0 (Jujarat Okra 6 (GO 6)	
1	Name of crop	Okra
2	Botanical name	Abelmoschus esculentus (L.) Moench
3	Name of variety	Gujarat Okra 6 (GO 6)
4	Parentage with details of its	AOL-03-1 x JOL-2K-19
	pedigree	(K-2007-5-B-6-4-B-B)
5	Breeding method	Hybridization followed by pedigree method of
		selection.
6	Year of release	2017-18
7	Gazette notification	Awaited
8	Acknowledge particulars about	GO 6 (JOL-11-12) IC: 625723
	the submission of germplasm	
	samples with NBPGR	
9	Potential yield (q/ha)	154.68
10	Average yield (q/ha)	125.44
11	Recommended regions/areas of	The <i>kharif</i> okra growing areas of Gujarat state.
	adoption	
12	Characteristics/Distinguishing morphism	
•	Plant height (cm)	111.83
•	Days to 50 % flowering	45
•	Fruit length (cm)	12.94
•	Fruit girth (cm)	5.84
•	10 fruit weight (g)	146.4
•	No. of pickings	14
•	No. of fruit/plant	14.79
•	Intermodal length (cm)	7.53
•	Fruit colour	Dark green
•	Stem colour at initial stage	Green
13	Agronomical Practices	• Sowing season: 15 th June to 15 th July
		• Spacing: 60 x 30 cm
		• Seed rate: 8 to 10 kg/ha.
		• Fertilizer: N:P:K 150 : 50 : 50 kg/ha.
L	<u> </u>	1 11 11 11 11 10 1 0 1 10 1 10 1 10 1

14	Specific attributes/Describe at least two identifiable characteristics of the variety	 Fruits are smooth, tender, dark green in colour and attractive. Leaf petiole length is short. Flower petal colour is cream. Calyx is green in colour. Shape of fruit is apex is narrow acute. Hairiness on seed is present.
15	Quality / Nutritional / Other features	 Dry weight (%): 8.70 Moisture (%): 91.30 Protein (%): 1.05 TSS (%): 8.50 Total Phenols (mg/100g): 0.30 Total Soluble Sugar (%): 1.31 Ascorbic Acid (mg/100g): 6.49
16	Diseases and pests resistance (give details of any resistance to pest or diseases including races)	The fruit borer, jassids, white fly and YVMV incidence was found less as compared to all check varieties.
17	Days to last picking/Maturity group	99/Medium maturity group.
18	Originating source/ Institute	Vegetable Research Station, Junagadh Agricultural University, Junagadh-362 001 (Gujarat)







17. Garlic

17.1 Gujarat Garlic 4 (GG 4)

	Jujarat Garne 4 (GG 4)	
1	Name of crop	Garlic
2	Botanical name	Allium sativum L.
3	Name of variety	Gujarat Garlic 4 (GG 4)
4	Parentage with details of its	The genotype was selection from the local collection
	pedigree	made from surrounding area of Choki village of
		Junagadh district and maintained in germplasm as
		line No. 213.
5	Breeding method	Clonal selection.
6	Year of release	2006-07
7	Gazette notification	S. O. 2978 (E) & Date: 26.12.2008
8	Acknowledge particulars about	GG 4 (JG-99-213) IC: 573470
	the submission of germplasm	
	samples with NBPGR	
9	Potential yield (q/ha)	93.24
10	Average yield (q/ha)	89.33
11	Recommended regions/areas of	The garlic variety is suitable for cultivation under
	adoption	rabi season for Saurashtra and Middle Gujarat and
		Zone IV (Gujarat & Rajasthan).
12	Characteristics/Distinguishing morphisms	phological in brief:
•	Plant height (cm)	55
•	No. of leaves/Plant	11.5

•	No. of cloves/Bulb	21.0
•	Bulb polar diameter (cm)	2.72
•	Bulb equator diameter (cm)	3.82
•	Clove length (cm)	2.17
•	Clove girth (cm)	0.89
•	Bulb weight (g)	19.1
•	Bulb colour	White
•	Leaf colour	Medium green
•	Leaf width	Narrow
•	Bulb size	Medium
13	Agronomical Practices	 Sowing season: Second fortnight of October Spacing: 15 x 10 cm Seed rate: 500 to 700 kg cloves/ha. Fertilizer: N:P:K 50: 50: 50 kg/ha.
14	Specific attributes/Describe at least two identifiable characteristics of the variety	The bulbs are medium in size, compact and white in colour, the leaf width is narrow with medium green colour.
15	Quality / Nutritional / Other features	 T. S. S. (*Brix): 36.12 Soluble sugar (%): 22.59 Reducing sugar (%): 2.31 Non reducing sugar (%): 20.28 Ascorbic Acid (mg/100g): 6.44 Carotenoids (mg/100g): 0.45 Pyruvic acid (mg/g.): 2.86 Protein (%): 1.14 Dry matter (%): 38.45 Drying ratio: 2.60
16	Diseases and pests resistance (give details of any resistance to pest or diseases including races)	The stem phylum leaf blight and powdery mildew disease and thrips are less in the variety.
17	Maturity group	134/Medium maturity group.
18	Originating source/ Institute	Vegetable Research Station, Junagadh Agricultural University, Junagadh-362 001 (Gujarat)







17.2 Gujarat Junagadh Garlic 5 (GJG 5)

	sujurur samagaan sarne e (333 e	
1	Name of crop	Garlic
2	Botanical name	Allium sativum L.
3	Name of variety	Gujarat Junagadh Garlic 5 (GJG 5)
4	Parentage with details of its pedigree	The genotype was collection from local market of Visavadar of Junagadh district and maintained in germplasm as line No. 260.
5	Breeding method	Clonal selection.
6	Year of release	2013-14
7	Gazette notification	Awaited
8	Acknowledge particulars about	GJG 5 (JG-07-13) IC: 611307

the submission of germplasm	
samples with NBPGR	
9 Potential yield (q/ha) 81.32	
10 Average yield (q/ha) 79.42	
11 Recommended regions/areas of The garlic variety is suitable for	
adoption rabi season for Saurashtra and M	liddle Gujarat.
12 Characteristics/Distinguishing morphological in brief:	
• Plant height (cm) 44.88	
• No. of leaves/Plant 12.23	
No. of cloves/Bulb 17.85	
• Bulb polar diameter (cm) 2.87	
• Bulb equator diameter (cm) 3.18	
Clove size (diameter) Medium	
Clove colour and colour flesh White	
• 10 Bulb weight (g) 130.92	
Bulb colour White	
Leaf colour Light green	
Leaf width Narrow	
Leaf waxiness Weak	
Leaf shape Strongly concave	
Bulb size Compact and Medium	
13 Agronomical Practices • Sowing season : Second fortn	ght of October
• Spacing: 15 x 10 cm	
Seed rate: 500 to 700 kg clov	es/ha
• Fertilizer: N:P:K 50 : 50 : 50	
14 Specific attributes/Describe at The bulbs are medium in	
least two identifiable attractive white in colour, the le	
characteristics of the variety with light green colour.	
15 Quality / Nutritional / Other • T. S. S. (*Brix): 37.50	
features • Total carbohydrate (%): 26.7	1
• Total protein (%): 3.72	
• Reducing sugar (%): 2.34	
• Ascorbic Acid (mg/100g): 6.	87
• Carotenoids (mg/100g): 0.44	
• Pyruvic acid (mg/g.): 2.93	
• Dry matter (%): 38.89	
• Drying ratio : 2.57	
16 Diseases and pests resistance The stem phylum leaf blight and	powdery mildew
(give details of any resistance to disease and thrips are less in the	-
pest or diseases including races)	•
17 Maturity group Early maturity group.	
18 Originating source/ Institute Vegetable Research Station, Ju	nagadh Agricultural
University, Junagadh-362 001 (C	_







18. Onion

18.1 Gujarat Junagadh Red Onion 11 (GJRO 11)

	Gujarat Junagadh Red Onion 11 (
1	Name of crop	Onion
2	Botanical name	Allium cepa L.
3	Name of variety	Gujarat Junagadh Red Onion 11 (GJRO 11)
4	Parentage with details of its	The sample of red onion was local collection from
	pedigree	Mahuva taluka of Bhavnagar district and maintained
	- ·	in germplasm No. 117 (Mahuva-7).
5	Breeding method	Mass selection.
6	Year of release	2014-15
7	Gazette notification	Awaited
8	Acknowledge particulars about	GJRO 11 (JDRO-07-13) IC: 612169
	the submission of germplasm	
0	samples with NBPGR	271.62
9	Potential yield (q/ha)	371.63
10	Average yield (q/ha)	336.29
11	Recommended regions/areas of	The onion variety is suitable for cultivation in <i>rabi</i>
10	adoption Characteristics/Distinguishing mor	season under irrigated condition of Gujarat state.
12	Characteristics/Distinguishing mor	10.02
•	Number of leaves/ pseudo stem	
•	Foliage length (cm)	49.54
•	Bulb length (cm)	3.96
•	Bulb girth (cm)	5.36
•	Bulb weight (g)	59.61
•	Bolting (%)	2.34
•	Jointed bulbs (%)	1.74
•	Bulb colour	Red
•	Bulb shape	Flat globe
•	Thickness of rings	Medium
•	Firmness of flesh	Medium
•	Colour of epidermis of fleshy	Purple
	scale Predominant number of axes	Three
•	Cross section	Asymmetrical
•	Degree of spitting into bulb lets	Absent
	Foliage attitude	Erect
•		Present
13	Foliage waxiness	
13	Agronomical Practices	• Time of T. P.: November-December
		• Spacing: 15 x 10 cm
		• Seed rate: 8 to 10 kg/ha.
1.4	Constitution (D)	• Fertilizer: N:P:K 75 : 60 : 50 kg/ha.
14	Specific attributes/Describe at	The bulbs are medium in size, flat globe in shape
	least two identifiable	and red in colour and recorded less jointed bulb per
15	Characteristics of the variety	cent (1.74 %).
13	Quality / Nutritional / Other features	• Moisture (%): 89.44
	Toutures	• T. S. S. (*Brix): 13.14
		• Soluble sugar (%): 1.22
		• Reducing sugar (%): 0.36
		• Non reducing sugar (%): 0.86
		• Ascorbic Acid (mg/100g) : 3.89
		• Pyruvic acid (mg/100g.): 11.35

		Total Duotain (0/) . 1 16
		• Total Protein (%): 1.16
		• Total phenol mg/100g : 13.66
		• Acidity (%): 0.34
16	Diseases and pests resistance	Purple blotch disease and thrips is less in the variety.
	(give details of any resistance to	
	pest or diseases including races)	
17	Days to maturity/Maturity group	124/ Medium maturity group.
18	Originating source/ Institute	Vegetable Research Station, Junagadh Agricultural
		University, Junagadh-362 001 (Gujarat)







18.2 Gujarat Junagadh White Onion 3 (GJWO 3)

2 B 3 N 4 Pa	Tame of crop Totanical name Tame of variety Tarentage with details of its Tedigree	Onion Allium cepa L. Gujarat Junagadh white Onion 3 (GJWO 3) The sample of white onion was local collection from
3 N 4 Pa	Tame of variety arentage with details of its	Gujarat Junagadh white Onion 3 (GJWO 3) The sample of white onion was local collection from
4 Pa	arentage with details of its	The sample of white onion was local collection from
	· ·	±
	O .	Talaja taluka of Bhavnagar district and maintained
		in germplasm No. 120 (Borda village).
5 B	reeding method	Mass selection.
6 Y	ear of release	2015-16
7 G	Sazette notification	Awaited
8 A	cknowledge particulars about	GJWO 3 (JWO-05-7) IC: 612168
	ne submission of germplasm	
	amples with NBPGR	
	otential yield (q/ha)	519.33
	verage yield (q/ha)	398.06
	ecommended regions/areas of	The onion variety is suitable for cultivation in <i>rabi</i>
	doption	season under irrigated condition of Gujarat state.
	haracteristics/Distinguishing morp	
	Tumber of leaves/ pseudo stem	10.7
	oliage length (cm)	49.7
	ulb length (cm)	4.23
	sulb girth (cm)	5.16
• B	ulb weight (g)	65.73
• B	olting (%)	1.02
• Jo	ointed bulbs (%)	1.70
• B	ulb colour	White
• B	ulb shape	Flat globe
• T	hickness of rings	Medium
	hickness of neck	Thick
• Fi	irmness of flesh	Medium
• C	colour of epidermis of fleshy	White
	cale	
• P1	redominant number of axes	Three
• C	cross section	Asymmetrical

•	Degree of spitting into bulb lets	Absent
•	Foliage attitude	Erect
•	Foliage waxiness	Present
•	Anthocyanin pigmentation	Dark green
13	Agronomical Practices	Time of T. P.: November-December
		• Spacing: 15 x 10 cm
		• Seed rate: 8 to 10 kg/ha.
		• Fertilizer: N:P:K 75 : 60 : 50 kg/ha.
14	Specific attributes/Describe at	The bulbs are medium in size, flat globe in shape
	least two identifiable	and white in colour and foliage is dark green. Four
	characteristics of the variety	months storage study, the weight loss per cent (18.06
		%) has also observed lower. The variety is suitable
		for dehydration purpose.
15	Quality / Nutritional / Other	• Moisture (%): 90.73
	features	• T. S. S. (*Brix): 13.15
		• Soluble sugar (%): 1.04
		• Reducing sugar (%): 0.24
		• Non reducing sugar (%): 0.79
		• Ascorbic Acid (mg/100g): 3.19
		• Pyruvic acid (mg/100g.): 11.35
		• Total Protein (%): 1.19
		• Total phenol mg/100g : 18.23
		• Acidity (%): 0.37
16	Diseases and pests resistance	Purple blotch disease and thrips are less in the
	(give details of any resistance to	variety.
	pest or diseases including races)	
17	Days to maturity/Maturity group	123/ Medium maturity group.
18	Originating source/ Institute	Vegetable Research Station, Junagadh Agricultural
		University, Junagadh-362 001 (Gujarat)







19. Sponge Gourd 19.1 Gujarat Sponge Gourd 1 (GSG 1)

1	Name of crop	Sponge Gourd
2	Botanical name	Luffa cylindrica Roem.
3	Name of variety	Gujarat Sponge Gourd 1 (GSG 1)
4	Parentage with details of its	The genotype was collection from Ajab, village
	pedigree	Junagadh district and maintained in germplasm lion
		No. 55.
5	Breeding method	Mass selection.
6	Year of release	2004-05
7	Gazette notification	S. O. 597 (E) & Date: 25.04.2006
8	Acknowledge particulars about	GSG 1 (JSGL-55) IC: NA
	the submission of germplasm	
	samples with NBPGR	

9	Potential yield (q/ha)	213.20
10	Average yield (q/ha)	131.29
11	Recommended regions/areas of	The sponge gourd variety is suitable for cultivation
	adoption	during <i>kharif</i> season for the Gujarat state and Zone
	_	VII (MP (Excluding Eastern Part), Maharashtra and
		Goa).
12	Characteristics/Distinguishing morphisms	phological in brief:
•	Daye to male flowering	44.00
•	Days to female flowering	44.63
•	Days to first picking	59.91
•	Days to last picking	109.12
•	Vine length (m)	5.5
•	Fruit length (cm)	23.22
•	Fruit girth (cm)	12.64
•	Fruit weight (g)	147.36
•	No. of fruit / plant	11.98
•	Fruit yield / plant (kg)	1.765
•	No. of pickings	16.77
•	Fruit colour	Light green
•	Fruit size	Medium
•	Seed colour	Black
13	Agronomical Practices	• Time of sowing : June-July
		• Spacing: 150 cm x 100 cm
		• Seed rate: 2 kg/ha.
		• Fertilizer: N:P:K 50 : 25 : 25 kg/ha.
14	Specific attributes/Describe at	The fruit of this variety are medium size, good shape
	least two identifiable	with attractive light green colour and contain higher
1.7	characteristics of the variety	Soluble Sugar (1.99 %).
15	Quality / Nutritional / Other	• Moisture (%): 92.17
	features	• Soluble sugar (%): 1.99
		• Reducing sugar (%): 0.948
		• Non reducing sugar (%): 1.042
		• Chlorophyll 'a' (mg/g): 0.093
		• Chlorophyll 'b' (mg/g): 0.071
16	Diseases and pests resistance	• Soluble protein (%): 0.345
10	(give details of any resistance to	Downy mildew disease and leaf miner are less in the variety.
	pest or diseases including races)	variety.
17	Days to last picking/Maturity	109 days/Medium maturity group.
-	group	2-22 mily distribution in the state of the s
18	Originating source/ Institute	Vegetable Research Station, Junagadh Agricultural
		University, Junagadh-362 001 (Gujarat)







19.2 Gujarat Junagadh Sponge Gourd 2 (GJSG 2)

19.2 (Gujarat Junagadh Sponge Gourd 2	
1	Name of crop	Sponge Gourd
2	Botanical name	Luffa cylindrica (L.) Roem
3	Name of variety	Gujarat Junagadh Sponge Gourd 2 (GJSG 2)
4	Parentage with details of its	Pusa Chikni x NSG 28
	pedigree	
5	Breeding method	Hybridization followed by pedigree method of
		selection.
6	Year of release	2014-15
7	Gazette notification	Awaited
8	Acknowledge particulars about	GJSG 2 (JSG-05-04) IC: 616390
	the submission of germplasm	
	samples with NBPGR	120.72
9	Potential yield (q/ha)	139.73
10	Average yield (q/ha)	114.04
11	Recommended regions/areas of	The sponge gourd variety is suitable for the
	adoption	cultivation during <i>kharif</i> season for the Saurashtra
12	Characteristics/Distinguishing mor	and Middle Gujarat region.
12	Daye to male flowering	39
•	Days to female flowering	43
•	Days to first picking	55
•	Days to last picking	98
•	Vine length (m)	7.78
	Fruit length (cm)	27.29
•	_	12.37
•	Fruit girth (cm)	162.02
•	Fruit weight (g) No. of fruit / plant	13.36
•	-	2.16
•	Fruit yield / plant (kg) No. of primary branches/vine	3
•	Fruit skin colour	Green
•	Fruit size	Long
•		Cylindrical
•	Fruit shape Seed colour	Black
•		Smooth
•	Flash texture	
•	Flower size	Medium big
•	Early plant vigor	Very good
•	Plant growth habit	Long vine Smooth
•	Stem pubescence	
13	Stem shape Agranomical Practices	Angular
13	Agronomical Practices	• Time of sowing: 15 th June to 15 th July
		• Spacing: 200 cm x 100 cm
		• Seed rate: 3 kg/ha.
14	Specific attributes/Describe at	• Fertilizer: N:P:K 50 : 25 : 25 kg/ha. The fruit of this variety are long size, green colour,
14	Specific attributes/Describe at least two identifiable	shining. Leaf size is large and multifold leaf margin
	characteristics of the variety	and more tendrils branching (1+4).
15	Quality / Nutritional / Other	 Moisture (%): 93.06
15	features	• Dry Wt. (%): 6.94
		• TSS (%): 6.25
		• Soluble sugar (%): 1.671
	<u> </u>	- Bolubic sugai (70). 1.0/1

		• Reducing sugar (%): 0.781
		• Non reducing sugar (%): 0.890
		• Chlorophyll 'A' (mg/g) : 0.62
		• Chlorophyll 'B' (mg/g): 0.91
		• Soluble protein (%): 0.218
16	Diseases and pests resistance	Mosaic, Downy mildew disease and fruit fly, leaf
	(give details of any resistance to	miner are less in the variety.
	pest or diseases including races)	
17	Days to last picking/Maturity	98 days/Early maturity group.
	group	
18	Originating source/ Institute	Vegetable Research Station, Junagadh Agricultural
		University, Junagadh-362 001 (Gujarat)







20. Ridge Gourd 20.1 Gujarat Junagadh Ridge Gourd Hybrid 1 (GJRGH 1)

4 Parentage with details of its pedigree JRGL 11 x JRGL 32 5 Breeding method Heterosis breeding. 6 Year of release 2011-12 7 Gazette notification Awaited 8 Acknowledge particulars about the submission of germplasm samples with NBPGR 1) GJRGH 1 (JRGH-28) 587780 9 Potential yield (q/ha) 146.22 9 Potential yield (q/ha) 113.30 11 Recommended regions/areas of adoption The hybrid is suitable for the cultivation during beason for the Saurashtra and Middle Gujarat region season for the Saurashtra and Middle Gujara	20.1	Gujarat Junagaun Kiuge Gourd Hydrid 1 (GJKGH 1)			
3 Name of variety	1		Ridge Gourd		
4 Parentage with details of its pedigree 5 Breeding method Heterosis breeding. 6 Year of release 2011-12 7 Gazette notification Awaited 8 Acknowledge particulars about the submission of germplasm samples with NBPGR 3) JRGL-32 (Male) 587781 9 Potential yield (q/ha) 1146.22 10 Average yield (q/ha) 113.30 11 Recommended regions/areas of adoption season for the Saurashtra and Middle Gujarat region season for the Saurashtra and Middle Gujarat region (JRGH-28) (Female) • Daye to male flowering 46.30 47.90 44.45 • Days to female flowering 52.14 53.43 49.25 • First male appearing node 6.30 8.90 7.83 • First female appearing node 7.80 12.50 10.26 • Male and female flower ratio 11.10 9.35 10.25 • Days to last picking 59 60 65 • Days to last picking 110 109 102 • Vine length (m) 5.10 4.80 5.73 • No. of primary branches/vine 8.50 7.60 6.60		Botanical name			
Description of the parents Days to female flowering Days to first picking Days to fprimary branches/vine Days to first picking Days to fprimary branches/vine Days to first picking Days to fprimary branches/vine Days to first picking Days to fprimary branches/vine Days to fprimary branches/vine Days to first picking Days to fprimary branches/vine Days to f	3	•	Gujarat Junagadh Ridge Gourd Hybrid 1 (GJRGH 1)		
5 Breeding method Heterosis breeding. 6 Year of release 2011-12 7 Gazette notification Awaited 8 Acknowledge particulars about the submission of germplasm samples with NBPGR 1) GJRGH 1 (JRGH-28) 587780 9 Potential yield (q/ha) 146.22 10 Average yield (q/ha) 113.30 11 Recommended regions/areas of adoption The hybrid is suitable for the cultivation during season for the Saurashtra and Middle Gujarat region 12 Characteristics/Distinguishing morphological in brief: Description of the parents GJRGH 1 (JRGL-11 (JRGL-32 (Male)) 6 Days to male flowering 46.30 (Female) 9 Days to female flowering 52.14 (Female) 9 Pirst male appearing node 6.30 (Female) 9 First female appearing node 7.80 (Female) 9 Poays to first picking 59 (Female) 9 Days to first picking 59 (Female) 9 Poays to first picking 59 (Female) 9 Poays to first picking 59 (Female) 10 48.80	4		JRGL 11 x JRGL	32	
6 Year of release 2011-12 7 Gazette notification Awaited 8 Acknowledge particulars about the submission of germplasm samples with NBPGR 1) GJRGH 1 (JRGH-28) 587780 9 Potential yield (q/ha) 146.22 10 Average yield (q/ha) 113.30 11 Recommended regions/areas of adoption The hybrid is suitable for the cultivation during season for the Saurashtra and Middle Gujarat region 12 Characteristics/Distinguishing morphological in brief: Description of the parents GJRGH 1 (JRGH-28) (Female) • Daye to male flowering 46.30 47.90 44.45 • Days to female flowering 52.14 53.43 49.25 • First male appearing node 6.30 8.90 7.83 • First female appearing node 7.80 12.50 10.26 • Male and female flower ratio 11.10 9.35 10.25 • Days to first picking 59 60 65 • Days to last picking 110 109 102 • Vine length (m) 5.10 4.80 5.73		1 &			
7 Gazette notification Awaited 8 Acknowledge particulars about the submission of germplasm samples with NBPGR 1) GJRGH 1 (JRGH-28) 587780 587781 587781 587782 9 Potential yield (q/ha) 146.22 10 Average yield (q/ha) 113.30 11 Recommended regions/areas of adoption The hybrid is suitable for the cultivation during season for the Saurashtra and Middle Gujarat region 12 Characteristics/Distinguishing morphological in brief: Description of the parents GJRGH 1 (JRGH-28) (Female) • Days to male flowering 46.30 (Female) • Days to female flowering 52.14 (Female) • First male appearing node 6.30 (Female) • First female appearing node 7.80 (Female) • Male and female flower ratio 11.10 (Female) • Days to first picking 59 (Female) • Days to last picking 110 (Female) • Vine length (m) 5.10 (Female) • No. of primary branches/vine 8.50 (Female)				<u>5</u> .	
8 Acknowledge particulars about the submission of germplasm samples with NBPGR 1) GJRGH 1 (JRGH-28) 587780 587781 587781 587782 9 Potential yield (q/ha) 146.22 10 Average yield (q/ha) 113.30 11 Recommended regions/areas of adoption season for the Saurashtra and Middle Gujarat region The hybrid is suitable for the cultivation during season for the Saurashtra and Middle Gujarat region 12 Characteristics/Distinguishing morphological in brief: Description of the parents GJRGH 1 (JRGH-28) (Female) • Days to male flowering 46.30 47.90 44.45 • Days to female flowering 52.14 53.43 49.25 • First male appearing node 6.30 8.90 7.83 • First female appearing node 7.80 12.50 10.26 • Male and female flower ratio 11.10 9.35 10.25 • Days to first picking 59 60 65 • Days to last picking 110 109 102 • Vine length (m) 5.10 4.80 5.73 • No. of primary branches/vine 8.50 7.60 6.60	6				
about the submission of germplasm samples with NBPGR 2) JRGL-32 (Male) 587781 NBPGR 3) JRGL-11 (Female) 587782 9 Potential yield (q/ha) 146.22 10 Average yield (q/ha) 113.30 11 Recommended regions/areas of adoption The hybrid is suitable for the cultivation during the season for the Saurashtra and Middle Gujarat region 12 Characteristics/Distinguishing morphological in brief: Description of the parents GJRGH 1 JRGL-11 JRGL-32 (Male) (JRGH-28) (Female) 46.30 47.90 44.45	7	Gazette notification	Awaited		
germplasm samples with NBPGR 3) JRGL-32 (Male) 587781 NBPGR 3) JRGL-11 (Female) 587782 9 Potential yield (q/ha) 146.22 10 Average yield (q/ha) 113.30 11 Recommended regions/areas of adoption Season for the Saurashtra and Middle Gujarat region 12 Characteristics/Distinguishing morphological in brief: Description of the parents GJRGH 1 JRGL-11 JRGL-32 (Male) (JRGH-28) (Female) (JRGH-28) (Female) (Female) (Female) (Female) (First male appearing node 6.30 8.90 7.83 (First female appearing node 7.80 12.50 10.26 (First female appearing node 11.10 9.35 10.25 (First female appearing node 11.10 9.35 10.25 (First female appearing node 11.10 (First female appearing node (First female appearing node (F	8				
NBPGR 3) JRGL-11 (Female) 587782			· · · · · · · · · · · · · · · · · · ·	* *	
9 Potential yield (q/ha) 146.22 10 Average yield (q/ha) 113.30 11 Recommended regions/areas of adoption season for the Saurashtra and Middle Gujarat region season for the Saurashtra and Middle Gujarat region 12 Characteristics/Distinguishing morphological in brief: Description of the parents GJRGH 1 (JRGL-11 (JRGH-28) (Female) • Daye to male flowering 46.30 47.90 44.45 • Days to female flowering 52.14 53.43 49.25 • First male appearing node 6.30 8.90 7.83 • First female appearing node 7.80 12.50 10.26 • Male and female flower ratio 11.10 9.35 10.25 • Days to first picking 59 60 65 • Days to last picking 110 109 102 • Vine length (m) 5.10 4.80 5.73 • No. of primary branches/vine 8.50 7.60 6.60			,		
10 Average yield (q/ha) 11 Recommended regions/areas of adoption 12 Characteristics/Distinguishing morphological in brief: Description of the parents Daye to male flowering Days to female flowering First male appearing node First female appearing node Male and female flower ratio Days to last picking Days to last picking Days to last picking Vine length (m) 113.30 The hybrid is suitable for the cultivation during is season for the Saurashtra and Middle Gujarat region The hybrid is suitable for the cultivation during is season for the Saurashtra and Middle Gujarat region The hybrid is suitable for the cultivation during is season for the Saurashtra and Middle Gujarat region The hybrid is suitable for the cultivation during is season for the Saurashtra and Middle Gujarat region The hybrid is suitable for the cultivation during is season for the Saurashtra and Middle Gujarat region The hybrid is suitable for the cultivation during is season for the Saurashtra and Middle Gujarat region The hybrid is suitable for the cultivation during is season for the Saurashtra and Middle Gujarat region The hybrid is suitable for the cultivation during is season for the Saurashtra and Middle Gujarat region It is suitable for the cultivation during is season for the Saurashtra and Middle Gujarat region It is suitable for the cultivation during is suitable for the cultivation during is season for the Saurashtra and Middle Gujarat region It is suitable for the cultivation during is season for the Saurashtra and Middle Gujarat region It is suitable for the cultivation during is season for the Saurashtra and Middle Gujarat region FIGHT A SURE HANGLE A SU			,	Female) 587	782
The hybrid is suitable for the cultivation during to season for the Saurashtra and Middle Gujarat region 12 Characteristics/Distinguishing morphological in brief: Description of the parents Olyright of GJRGH 1 (JRGL-11 (JRGL-32 (Magh-28) (Female)) Days to male flowering Days to female flowering First male appearing node First female appearing node Male and female flower ratio Days to last picking Days to last picking The hybrid is suitable for the cultivation during to season for the Saurashtra and Middle Gujarat region JRGL-32 (Magh-28) (Female) JRGL-32 (Magh-28) (Female) 44.45 Days to female flowering 52.14 53.43 49.25 First female appearing node 7.80 12.50 10.26 Male and female flower ratio 11.10 9.35 10.25 Days to last picking 59 60 65 Days to last picking 110 109 102 Vine length (m) 5.10 4.80 5.73 No. of primary branches/vine					
of adoption season for the Saurashtra and Middle Gujarat region 12 Characteristics/Distinguishing morphological in brief: Description of the parents GJRGH 1 (JRGL-11 (Female)) • Daye to male flowering 46.30 47.90 44.45 • Days to female flowering 52.14 53.43 49.25 • First male appearing node 6.30 8.90 7.83 • First female appearing node 7.80 12.50 10.26 • Male and female flower ratio 11.10 9.35 10.25 • Days to first picking 59 60 65 • Days to last picking 110 109 102 • Vine length (m) 5.10 4.80 5.73 • No. of primary branches/vine 8.50 7.60 6.60					
12 Characteristics/Distinguishing morphological in brief: Description of the parents GJRGH 1 (JRGL-11 (Female)) JRGL-32 (More Memole) • Daye to male flowering 46.30 47.90 44.45 • Days to female flowering 52.14 53.43 49.25 • First male appearing node 6.30 8.90 7.83 • First female appearing node 7.80 12.50 10.26 • Male and female flower ratio 11.10 9.35 10.25 • Days to first picking 59 60 65 • Days to last picking 110 109 102 • Vine length (m) 5.10 4.80 5.73 • No. of primary branches/vine 8.50 7.60 6.60	11		The hybrid is suitable for the cultivation during kharif		
Description of the parents GJRGH 1		-	· ·		
Jaye to male flowering (JRGH-28) (Female) ◆ Days to female flowering 46.30 47.90 44.45 ◆ Days to female flowering 52.14 53.43 49.25 ◆ First male appearing node 6.30 8.90 7.83 ◆ First female appearing node 7.80 12.50 10.26 ◆ Male and female flower ratio 11.10 9.35 10.25 ◆ Days to first picking 59 60 65 ◆ Days to last picking 110 109 102 ◆ Vine length (m) 5.10 4.80 5.73 ◆ No. of primary branches/vine 8.50 7.60 6.60	12				_
 Daye to male flowering Days to female flowering First male appearing node First female appearing node Male and female flower ratio Days to first picking Days to last picking Vine length (m) No. of primary branches/vine Days to male flowering 46.30 47.90 49.25 53.43 49.25 10.26 12.50 10.26 10.25 10.26 10.26<td></td><td>Description of the parents</td><td></td><td></td><td>JRGL-32 (Male)</td>		Description of the parents			JRGL-32 (Male)
 Days to female flowering First male appearing node First female appearing node Male and female flower ratio Days to first picking Days to last picking Vine length (m) No. of primary branches/vine 52.14 53.43 49.25 8.90 7.83 12.50 10.26 10.25 60 65 4.80 5.73 6.60 			,	` ′	
 First male appearing node First female appearing node First female appearing node Male and female flower ratio Days to first picking Days to last picking Vine length (m) No. of primary branches/vine 6.30 8.90 7.83 9.35 10.25 60 65 4.80 5.73 6.60 					
 First female appearing node Male and female flower ratio Days to first picking Days to last picking Vine length (m) No. of primary branches/vine Table 12.50 10.26 9.35 10.25 60 65 109 102 4.80 5.73 6.60 			52.14	53.43	
 Male and female flower ratio Days to first picking Days to last picking Vine length (m) No. of primary branches/vine Male and female flower ratio 11.10 9.35 60 65 109 102 4.80 5.73 6.60 	•	First male appearing node	6.30	8.90	7.83
• Days to first picking 59 60 65 • Days to last picking 110 109 102 • Vine length (m) 5.10 4.80 5.73 • No. of primary branches/vine 8.50 7.60 6.60	•	First female appearing node	7.80	12.50	10.26
• Days to last picking 110 109 102 • Vine length (m) 5.10 4.80 5.73 • No. of primary branches/vine 8.50 7.60 6.60	•	Male and female flower ratio	11.10	9.35	10.25
• Vine length (m) 5.10 4.80 5.73 • No. of primary branches/vine 8.50 7.60 6.60	•	Days to first picking	59	60	65
• No. of primary branches/vine 8.50 7.60 6.60	•	Days to last picking	110	109	102
			5.10	4.80	5.73
Emit langth (cm) 24.62 21.19 22.22	•	No. of primary branches/vine	8.50	7.60	6.60
• Fruit length (cm) 34.03 31.18 32.23	•	Fruit length (cm)	34.63	31.18	32.23

•	Fruit girth (cm)	11.87	11.40	10.81
•	Fruit weight (g)	119.43	112.82	108.10
•	No. of fruit / plant	17.08	13.36	14.10
•	Fruit yield / plant (kg)	2.016	1.523	1.750
	Petiole length (cm)	11.6	10.80	11.30
•	Pedicle length (cm)	9.20	8.10	10.0
•	Number of ridges on fruit	10	10	10
•	100 seed weight	15.50	11.50	12.10
•	Fruit skin colour	Green	Green	Green
•	Fruit size	Long	Medium	Large
•	Fruit shape	Elliptical	Elliptical	Curve
•	Seed colour	Black	Black	Black
•	Flash texture	Smooth	Smooth	Smooth
•	Flower size	Big	Medium	Medium
•	Ridge expression	Highly	Prominent	Medium prominent
		prominent		
	Early plant vigor	Very good	Good	Good
•	Plant growth habit	Medium vine	Medium vine	Long vine
•	Stem pubescence	Smooth	Smooth	Smooth
•	Stem shape	Angular	Angular	Angular
•	Tendril	Present	Present	Present
•	Tendril type	Coiled	Coiled	Coiled
•	Tendril branching	Branched (1+3)	Branched (1+3)	Branched (1+4)
•	Leaf margin	Multifold	Multifold	Serrate
	Leaf size	Large	Medium	Large
	Leaf pubescence nature	Intermediate	Soft	Soft
	Leaf pubescence density	Dense	Sparse	Dense
12	Sex type	Monocious	Monocious	Monocious
13	Agronomical Practices	 Time of sowing: 15th June to 15th July Spacing: 200 cm x 100 cm 		
		• Seed rate: 3 kg/ha.		
		• Fertilizer: N:P:	K 50: 25: 25 kg/h	na.
14	Specific attributes/Describe at		•	e with green colour.
	least two identifiable	_	_	nore and the ride
	characteristics of the variety	_		ominent. Dorsal side
15	Quality / Nutritional / Other		prominent nerves-n	naie Howers.
13	features	• Moisture (%):		
	reatures	• Dry Wt. (%): 6		
		TSS (%): 5.83Total sugar (%)		
		Reducing sugar		
		0 0	sugar (%): 0.538	
		 Pulp/Skin ratio 	_	
		• Chlorophyll 'B' (mg/g): 1.240		
		• Protein (%): 0.230		
		• Fiber content (
16	Diseases and pests resistance		•	ainst downy mildew
	(give details of any resistance		_	leaf are less in the
	to pest or diseases including	hybrid.		
1	races)	100 1 7 7 7		
17	Days to last picking/Maturity	109 days/Medium	maturity group.	

	group					
18	Originating source/ Institute	Vegetable	Research	Station,	Junagadh	Agricultural
		University, Junagadh-362 001 (Gujarat)				





21. Indian Bean

21.1 Gujarat Junagadh Indian bean 11 (GJIB 11)

	Sujarat Junagadh Indian bean 11 (
1	Name of crop	Indian bean
2	Botanical name	Dolichos lablab L.
3	Name of variety	Gujarat Junagadh Indian bean 11 (GJIB 11)
4	Parentage with details of its	The genotype was collection from the local
	pedigree	collection was maintained in germplasm as lion No.
		16.
5	Breeding method	Pure line selection.
6	Year of release	2010-11
7	Gazette notification	Awaited
8	Acknowledge particulars about	GJIB 11 (JIB (V) 16 IC: 587779
	the submission of germplasm	
	samples with NBPGR	111.21
9	Potential pod yield (q/ha)	111.31
10	Average pod yield (q/ha)	95.39
11	Recommended regions/areas of	The Indian bean variety is suitable for cultivation
	adoption	during late <i>kharif</i> season in Saurashtra and Middle
12	Characteristics/Distinguishing mor	Gujarat.
	· · · · · · · · · · · · · · · · · · ·	57.25
•	Plant height (cm)	49.31
•	Plant spread (cm)	
•	No. of branches/plant	4.91
•	Pod length (cm)	13.22
•	Pod width (cm)	1.09
•	Ten pod weight (g)	53.44
•	No. of seeds per pod	5.11
•	Days to first picking	98
•	Days to last picking	149
•	Pod colour	Green
•	Pod shape	Medium long
•	Pod size	Medium
•	Plant habit	Semi spreading
13	Agronomical Practices	• Time of sowing : 15 th to 30 th September
		• Spacing: 150 cm x 75 cm
		• Seed rate: 8 to 10 kg/ha.
		• Fertilizer: N:P:K 20 : 40 : 00 kg/ha.
14	Specific attributes/Describe at	The pod of this variety is medium long in size with
	least two identifiable	green colour. Plant is semi spreading and flower is
	characteristics of the variety	violate in colour.
15	Quality / Nutritional / Other	• Moisture (%): 86.3
		1.10136610 (70) 1 00.0

	features	 Dry matter (%): 13.7 Poly phenol oxidase (od/min/g.): 0.14 Glycoalkaloid (od/gm.): 0.32 TSS (%): 11.6
		 Peel colour (od/g.): 1.36 Protein (%): 2.12
		• Acidity (%): 3.56
		Total phenol (mg/100g.): 27.23Total soluble sugar (%): 1.93
16	Diseases and pests resistance (give details of any resistance to pest or diseases including races)	The variety possessed tolerance leaf spot and leaf blight disease. Mosaic virus incidence is also recorded less (1.22 %) in the variety. The reaction of pod borer, leaf miner and aphids damage are also recorded lower.
17	Days to last picking/Maturity group	149 days/Medium maturity group.
18	Originating source/ Institute	Vegetable Research Station, Junagadh Agricultural University, Junagadh-362 001 (Gujarat)





21.2 Gujarat Junagadh Indian bean 2 (GJIB 2)

	rujarat Junagaun mulan bean 2 (C	
1	Name of crop	Indian bean (<i>Papdi</i>)
2	Botanical name	Dolichos lablab L.
3	Name of variety	Gujarat Junagadh Indian bean 2 (GJIB 2)
4	Parentage with details of its	JNDIB 88 x JNDIB 23
	pedigree	(1998-7-7-18-14-13)
5	Breeding method	Hybridization followed by pedigree method of
		selection.
6	Year of release	2011-12
7	Gazette notification	S. O. 3666 (E) & Date: 06.12.2016
8	Acknowledge particulars about	GJIB 2 (JIB (P)-04-14 IC: 589768
	the submission of germplasm	
	samples with NBPGR	
9	Potential pod yield (q/ha)	143.11
10	Average pod yield (q/ha)	112.46
11	Recommended regions/areas of	The Indian bean (papdi) variety is suitable for
	adoption	cultivation during late kharif season in Saurashtra
		and Middle Gujarat.
12	Characteristics/Distinguishing morphism	phological in brief:
•	Plant height (cm)	77.86
•	Plant spread (cm)	65.24
•	No. of branches/plant	5.55
•	Pod length (cm)	8.00
•	Pod width (cm)	1.997
•	Ten pod weight (g)	50.25
•	No. of seeds per pod	4.28

•	Days to first picking	91.0
•	Days to last picking	155.86
•	Pod colour	Green
•	Pod shape	Flat and medium long
•	Pod size	Big
•	Pod tip	Acute
•	Pod edge	Green
•	Pod curvature	Curved
•	Plant habit	Semi erect
•	Stem colour	Green
•	Petiole length	Short
•	Petiole colour	Green
•	Leaf blade tip angle	Very acute
•	Leaf blade colour	Green
•	Corolla colour	White
•	Inflorence spike length	Long
•	Pedicle length and thickness	Intermediate
•	Grain colour	Light green
13	Agronomical Practices	• Time of sowing: 15 th August to 15 th September
		• Spacing: 120 cm x 60 cm
		• Seed rate: 15 to 20 kg/ha.
		• Fertilizer: N:P:K 20 : 40 : 00 kg/ha.
14	Specific attributes/Describe at	The pod of this variety is flat and medium long in
	least two identifiable	shape with green colour. Plant is semi spreading and
	characteristics of the variety	flower is white in colour. Grain colour is light green
1.5	O 1' /N / '' 1 / O/1	and inflorescence length is more.
15	Quality / Nutritional / Other features	• Moisture (%): 82.53
	leatures	• Dry matter (%): 17.47
		• Poly phenol Oxidase (od/min/gm.): 0.133
		• Glycoalkaloid (od/gm.): 0.26
		TSS (%): 15.5Peel colour (od/gm.): 1.17
		• Protein (%): 4.69
		• Acidity (%): 2.26
		• Total phenol (mg/100g.): 32.64
		• Total soluble sugar (%): 2.23
16	Diseases and pests resistance	The variety possessed leaf spot and leaf blight
	(give details of any resistance to	disease intensity is also less. The reaction of pod
	pest or diseases including races)	borer, leaf miner and aphids damage are also
		recorded lower.
17	Days to last picking/Maturity	156 days/Medium maturity group.
	group	
18	Originating source/ Institute	Vegetable Research Station, Junagadh Agricultural
		University, Junagadh-362 001 (Gujarat)





