

# Achievements

## 1. Megaseed

### Seed production under ICAR Seed Project

Particulars	Seed produce during last five year (In quintals)				
	2013-14	2014-15	2015-16	2016-17	2017-18
Breeder Seed	283	475	170	133	156
Foundation Seed	396	601	528	541	402
Certified Seed	2850	2791	2893	2815	2129
TFL Seed	1297	2048	1274	2140	1813
<b>Total</b>	<b>4825</b>	<b>5915</b>	<b>4864</b>	<b>5629</b>	<b>4500</b>
Planting Material (Sugarcane)	4040	5440	5,440	3467	1433.96
Sugarcane tissue culture plantlets + Single Eye Bud (Nos.)	441100	561000	275000	178344	95786
Banana tissue culture plantlets (Nos.)	22000	28000	26840	541	10858
Fruit crops (Nos.)	828500	405882	888342	335870	499744
Farmer Participatory Seed Production	13274	6757	-	-	-
Farmer Training	6	8	8	4	6
Bij Mela	-	-	-	1	-
Workshop	-	-	-	-	1

### Seed production Under MIDH

Sr. No.	Details of measures	2013-14	2014-15	2015-16	2016-17	2017-18
<b>1. Production of quality planting materials.</b>						
(I)	Turmeric rhizomes (Qty. in tones)	24	21	19	24	25
(II)	Garlic seed (Qty. in tones)	0.9	2	2	2.0	2
(III)	Black pepper cuttings (Nos.)	1000	1000	2000	0.300	2500
(IV)	Ginger (Qty. in tones)	-	1	-	-	-
<b>2. Technology Dissemination Through FLD Organic Farming</b>						
(I)	Turmeric	2	4	1	2.0	1
<b>3. Transfer of Technology Programmer (Nos.)</b>						
(I)	Farmers Training Programme	1	2	3	2	3
<b>4. Status of Skill Development Trailing programme</b>						
(I)	Skill development training (Florist)	-	-	-	-	1
(II)	Skill development training (Protected cultivation)	-	-	-	-	1

## 2. Pulses

Sr. No.	Crop	Variety	Year of release	Yield kg/ha	Characteristics
<b>Varieties Developed</b>					
1	Pigeon pea	GT-1	1992	4000 - 5000 kg/ha (green pod)	Non determinate green poded variety having 5-6 peas per pod. Plant height: 170-190 cms. Plant type: bushy, Non Determinate type. Peas and pod color: green, pods are lengthy with out streaks contains 5-6 peas. (Developed at NARP, NAU, Bharuch)
2		GT-102	2005	1500	Medium duration variety, White bold seeded, Moderately resistant to SMD, Suitable for <i>rabi</i> cultivation
3		GNP-2	2016	3400 (green pod) and 1200 (grain)	First dual purpose (grain/ vegetable) variety in the State, Semi spread plant type with dark green foliage. Green pod with prominent constriction, Seed shape is globular which is more preferred by milling industry, consumers and farmers. (Developed at NARP, NAU, Bharuch)
4		GT-104	2018	1800-2000	Variety matures within 160-170 days (medium group) with semi spreading in nature, having red flower colour, long pod, 5-7 seeds per pod and cream seed colour. It has high yield potential and resistant against SMD. Recommended for <i>kharif</i> season in Gujarat.
5	Mung bean	GBM-1	2008	930	Medium tall, spreading, large leaves, Hairy pods, black seeds, moderately resistant to MYMV, Suitable for wet land and rice fallows cultivation.
6		GM-6	2017	900-1000	Bold seeded, long pod, determinate growth habit with synchronize maturity and good quality for marketable as well as cooking traits. It is resistance against MYMV disease. It is recommended for cultivation in <i>kharif</i> and <i>summer</i> seasons of Gujarat.
7		GM-7	2018	1000-1100	Variety matures within 70-75 days (medium group), having indeterminate in growth habit with medium seed size and shiny green seed colour. It has high yield potential and resistant against MYMV disease. Recommended for <i>kharif</i> as well as summer seasons of Gujarat.
8	Indian bean	G.Wal-1	1997	1200-1300	Moderately tolerant to YMV, purple flower, bold seeded with high protein content (23.04%), better cooking quality suitable for <i>rabi</i> sowing in irrigated and rainfed conditions. Higher dal recovery (92%).
9		G.Wal-2	2007	1200-1500	Erect growth habit, Early maturity, Dark foliage, White flower, Determinate type and bold seeds, Higher <i>dhal</i> recovery
10		GNIB-21	2014	3000-3500 (green pod)	Extra early flowering, Determinate type suited to intercrop, Good market and cooking quality Higher yield, Inflorescence shoots regeneration habit,
11		GNIB-22	2017	4500-5000 (green pod)	Light green and curved pod with higher sugar and test weight, Preferred in south Gujarat market. Less vine type, suited to intercrop. Having inflorescence shoot regeneration habit. The variety is recommended for late <i>kharif</i> & late <i>rabi</i> seasons in South Gujarat.
<b>Varieties Endorsed</b>					
1	Pigeon pea	Vaishali	2007	1500-2000	Medium plant height with profuse branching, Semi spreading and indeterminate growth, Black streaks on upper side of pods, Red flower colour, white bold

					seeds, high yield potential and resistance against SMD and wilt.
2		<b>C-11</b>	1997	1300-1400	Suitable for <i>rabi</i> season or after <i>kharif</i> paddy harvest in South Gujarat. Red seeded medium maturity and high yielding variety.
3	<b>Mung bean</b>	<b>Co-4</b>	1999	1250-1300	Suitable for <i>rabi</i> season, grown in South Gujarat region. Resistant to MYMV and BLB.
<b>Varieties for Contributed</b>					
1	<b>Pigeon pea</b>	GT-101	2001	1200-1300	White, bold seed with high protein content and higher dal recovery (78%) Suitable for inter cropping.
2		GTH-1	2004	1800-2000	Early in maturity, first cytoplasmic-genetic sterility (CMS) based hybrid, semi erect, NDT, white bold seeds.
3		GJP-1	2014	2000-2100 (Ir)	Moderately Resistant to wilt & SMD, green seed colour with ovul seed shape is white and 177 maturity days
4	<b>Mung bean</b>	K-851	1986	1400	Early, suitable for summer cultivation, moderately tolerant to YMV. 19 % higher over GM-1.
5		GM-3	1993	1100-1150	Suitable for summer season, Medium seed size with better dal recovery.
6		GM-4	2004	1250-1300	Suitable for kharif, gave 35% higher yield over K-851. Early in maturity, High protein content (22.7%), Bold seed (4.27 g/100 seeds)
7	<b>Urd bean</b>	T-9	1979	1000	27% higher over G-75 and 13% over Zandewal, early maturity (70-75 days) and suitable for intercropping as well as summer cultivation.
8		GU-1	2004	1100-1200	Bold seeded (4.27g/100 seeds), high yielding, moderately resistant to Cercospora Leaf Spot (CLS).
9	<b>Cowpea</b>	GC-3	1993	1200-1400	Suitable for arid and semi- arid regions as well as heavy rainfall zone of S. Gujarat, White seeded, Early in maturity.
10		GC-4	1997	900-1000	67.8% higher grain yield over Pusa phalguni and 128% higher over GC-1. Tolerant YMV, white bold seeded (14.12 gm) with better cooking quality
11		GC-5	2004	1200-1400	46% higher grain yield over GC-3, Red seeded
12	<b>Chick pea</b>	GG-1	1997	1200(R) 2000(Ir)	Wilt tolerant, suitable for rainfed and irrigated condition, semi spreading growth habit, medium late, medium sized, round reddish brown seed colour with smooth surface.
13		GG-2	1998	1300-(R) 1900-2000(Ir)	Suitable for rainfed and irrigated condition. Smooth and round bold seeded with reddish colour also suitable for "Jinjara" and dalia (roasted seeds). It is good variety for interculture with sugarcane.
14		GG-4	1999	1200 (R) 1900(Ir)	Wilt resistant with smooth, brown colored and round shaped seeds, suitable for irrigated as well as rainfed conditions.
15		GJG-3	2008	1720 (R)	Moderately Resistant to wilt and stunt, Yellow seed colour, Seed shape Owl's head and 98 maturity days
16		GG-5	2014	2500-2700 (Ir)	Moderately Resistant to wilt and resistant to stunt, Brown seed colour, Seed shape Angular and 103 maturity days
17		GJG-6	2015	1800-2000 (R)	Resistant to wilt and stunt, Brown seed colour, Seed shape Angular and 112 maturity days

### 3. Castor

Sr. No.	Hybrid	Year of release	Yield Kg/ha	Characteristics
1.	GNCH-1	2016	2450	Suitable for late <i>kharif/rabi</i> season, grown in South and Middle Gujarat region, resistant to wilt and root rot, leaf hopper

## Transfer of technologies activities

- Conducting Bij Mela, Workshop and off & on campus training programme on quality seed production, cultivation practices and IPM-IDM of regional crops.
- Staff delivered the lectures at different places *viz.* Sardar Smruti Kendra, Farmers Training centre and ATIC etc.
- Farmers are being advised during krishi mahotsava and krishi mela.
- Conducting demonstration plot and organizing field days on farmers field
- On farm demonstration are arranged for farmers visit to research station
- Farmers obtain the information by visit and interacting with scientists, staff and through telephone.
- Providing the literatures of cultivation practices and improved varieties to the farmer's this has created the awareness among the farming community.
- Conducting frontline demonstrations of castor as whole package and organizing field days on farmer's field.

### Training Programme :-

Year	Number of training
2013-14	6
2014-15	8
2015-16	8
2016-17	4
2017-18	6

### Front Line Demonstration :-

Sr. No.	Year	Crop	Technology	Area (ha.)	No. of demonstrations /farmers
1.	2013-14	Castor	Scientific package of practices	6	15
2	2014-15	Castor	Scientific package of practices	8	20
		Greengram	Scientific package of practices	4	40
		Urdbean	Scientific package of practices	2	5
3	2015-16	Castor	Scientific package of practices	30.8	77
		Greengram	Scientific package of practices	2	5
4	2016-17	Urdbean	Scientific package of practices	2	5
		Castor	Scientific package of practices	24	60
5	2017-18	Greengram	Scientific package of practices	6	15
		Castor	Scientific package of practices	12	30
		Greengram	Scientific package of practices	1.4	6