

## **SEED, PLANTING MATERIAL & PARENTAL LINES**

IIHR is a repository of germplasm for over 40 horticultural crops collected over the years. The scientific interventions in screening and selecting these have resulted in development of a number of elite germplasm, improved varieties, hybrids besides special traits like Male sterile lines in crops like chilli, onion and okra. Use of these lines is of significance in reducing the breeding time for the seed industry.

IIHR's contribution is in increasing the yields of horticultural crop varieties by developing high yielding varieties, enhancing special traits and imbuing multiple disease resistance in fruits, vegetables, ornamentals, medicinal and aromatic plants and also in developing advanced production technologies to increase the productivity of horticultural crops. . The production technologies developed by ICAR-IIHR will minimize the cost and maximize vegetable production and profitability

ICAR-IIHR's varieties, hybrids and advanced breeding lines have widely been sourced by a number of private seed companies. IIHR supplied lines and standard checks have resulted in a number of viable business opportunities by multiplying and selling the same.

### Tomato : Arka Rakshak

- High yielding F<sub>1</sub> hybrid with triple disease resistance to ToLCV+BW+EB
- Fruits high round, firm and deep red
- Fruit weight : 90-100g
- Suitable for both fresh market & processing
- Yields 75-80 t/ha in 140 days



### Tomato : Arka Samrat

- High yielding F<sub>1</sub> hybrid with triple disease resistance to Tomato Leaf Curl Virus (ToLCV) +Bacterial Wilt (BW) +Early Blight (EB)
- Fruits high round, firm and deep red
- Fruit weight : 100-110g
- Suitable for fresh market
- Yields 80-85 t/ha in 140 days



### Onion: Arka Kirthiman

- High yielding F<sub>1</sub> hybrid
- Medium size bulbs with globe shape and firm texture
- Bulbs red to light red in colour
- Bulb weight : 120 -125 g
- Long storage life (4-5 months)
- Suitable for *Kharif* and *Rabi* season
- Duration : 125-130 days
- Bulb Yield: 45t/ha





### Onion: Arka Lalima

- High yielding F<sub>1</sub> hybrid
- Medium to big sized bulbs with globe shape and firm texture
- Bulbs red to dark red in colour
- Bulb weight: 120-130 g
- Long storage life (4-5 months)
- Suitable for Kharif and Rabi seasons
- Duration :130-140 days
- Bulb yield: 47t/ha

### Onion Male Sterile Line: MS 48

- Plant height :60-65 cm
- Bulb colour:light Red
- Medium sized &oval globe shape bulbs
- Bulb weight 90 -100 g
- Days to 50% flowering : 65 days
- Bulb maturity :140 days
- Good keeping quality, firm bulbs
- Bulb Yield: 30 t/ha



### Onion: Maintainer B line for MS 48

- Plant height :40-50 cm
- Bulb colour: Light red to red
- Medium sized bulbs
- Oval globe to globe shape bulbs
- Days to 50% flowering: 65-70 days
- Bulb maturity :130-135 days

### Onion: Maintainer B line for MS 65

- Plant height: 50-58 cm
- Bulb colour: Deep red
- Medium to big size bulbs
- Flattish globe shape bulbs
- Days to 50% flowering: 60 days
- Bulb maturity :135-140 days
- Moderate keeping quality



### Onion Male Sterile Line: MS 65

- Plant height :50-60 cm
- Bulb colour: Red to dark red
- Medium to big sized bulbs
- Flattish globe to globe shape bulbs
- Days to 50% flowering: 65-70 days
- Bulb maturity: 130-135 days
- Yield: 35 t/ha

### Synthetic Onion : Arka Bheem

- It is a tri-parental synthetic variety
- Bulb colour: Red to pinkish red
- Bulb shape: Elongated globe
- Average bulb weight: 120 g
- Crop duration: 130 days
- Average yield: 47 t/ha



### Synthetic Onion : Arka Akshay

- It is a tri-parental synthetic variety
- Bulb colour : Dark Red
- Bulb shape: Globe
- Average bulb weight: 115 g
- Crop duration : 130 days
- Average yield : 45 t/ha



### Onion : Arka Yojith

- white onion variety developed for dehydration
- High TSS of 18-20%
- The product quality and storage quality is superior to other colour onion
- Yield: 33.4 t/ha



### Onion : Arka Vishwas

- Rose onion developed for export market (Asia) developed through selection.
- Bulb yield: 30t/ha.



### Onion : Arka Ujjwal

- True seed multiplier onion developed for export market developed through pedigree breeding with TSS 18<sup>0</sup>brix.
- Bulb yield: 30 t/ha



### Onion : Arka Sona

- Arka Sona is a yellow onion developed for export market for Asian countries. Developed by pedigree method.
- Bulb yield: 45t/ha in 120 days



### Chilli Male Sterile Line: MS 1

- CGMS (A&B) line
- Fruits 8-10 cm length and 0.8-1.0cm thick, green, turns red on maturity
- Fruit orientation pendent



### Chilli Male Sterile Line: MS 2

- CGMS (A&B) line
- Fruits 4-5cm length and 1.5cm thick, smooth, green, turns red on maturity
- Fruit orientation pendent



### Chilli Male Sterile Line: MS 4

- CGMS (A&B) line
- Fruits 10-12cm length and 0.6-0.8cm thick, wrinkled, green, turns red on maturity
- Fruit orientation pendent





### Chilli Male Sterile Line: MS 3

- CGMS (A&B) line
- Good foliage cover with tolerance to powdery mildew and chilli veinal mottle virus
- Fruits 6-8 cm length and 0.8-1.0cm thick, green, turns red on maturity
- Fruit orientation pendent



### Chilli F<sub>1</sub>Hybrid: Arka Meghana (A, B & R lines)

- CGMS based high yielding F<sub>1</sub>hybrid for dual (green & dry) purpose market
- Suitable for *kharif*&*rabiseasons* under irrigated conditions
- Fruit length 8-10cm, width 1.0-1.1cm, dark green and turn deep red on maturity
- Tolerant to chilli veinal mottle virus (ChVMV)
- Yield: 30-35 t/ ha (green) & 4.5-5 t/ha (dry) in 160 days

### Chilli F<sub>1</sub>Hybrid: Arka Sweta (A, B & R lines)

- CGMS based high yielding hybrid for fresh green chilli market
- Suitable for *kharif*&*rabiseasons* under irrigated conditions
- Fruit length 10-12cm, width 2-2.5cm
- Fruits smooth, less pungent and light green
- Tolerant to CMV
- Yield: 30-35 t/ ha (fresh green) in 160days







### Chilli F<sub>1</sub>Hybrid: Arka Harita(A, B & R lines)

- CGMS based high yielding hybrid for dual (green & dry) purpose market
- Suitable for *kharif* & *rabiseasons* under irrigated conditions,
- Fruit length 6-8cm, width 1cm
- Fruits smooth, highly pungent, green & turn red on maturity
- Tolerant to powdery mildew & ChVMV
- Yield: 35-38 t/ ha (Green) & 5-5.5 t/ha (dry) in 180 days

### Chilli F<sub>1</sub>Hybrid: Arka Khyati (A, B & R lines)

- CGMS based high yielding hybrid for fresh green chilli market
- Suitable for *kharif* & *rabiseasons* under irrigated conditions
- Fruits 10-12 X 1.0-1.2cm in size
- Smooth, medium pungent, light green and turn red on maturity
- Tolerant to CMV
- Yield: 40-45t/ ha (fresh green) in 180 days



### Coriander : Arka Isha

- High-yielding, multi-cut type of coriander
  - Yield 3.7 t/ha by pulling at 40 days after sowing and 12.17 t/ha by cutting (3 cuts)
  - Leaf essential oil yield 0.083%, with good aroma
- Keeping quality at Room Temperature 3 days, and at Low Temperature 3 weeks



**Amaranthus: Arka Arunima**

- It is a multicut variety and about 3 cuttings can be taken without the stem being fibrous
- Broad, succulent and purple leaves and purple stem
- Late bolting variety, flowers 45-50 DAS
- First cutting: 30 DAS
- Yield: 26-28t/ha in 3 cuttings in 60 days
- It has low oxalate and nitrates
- Resistant to white rust under epiphytotic conditions



**Bell Pepper: Advanced Breeding Line (Ch 73)**

- Advanced breeding line with powdery mildew resistance
- Blocky fruits
- Fruit weight: 50-60g



**Brinjal: Advanced Breeding Line IIHR Sel-2**

- Advanced breeding line having resistance to bacterial wilt.
- Average fruit weight: 80-100 g.
- Yield: 30-35t/ha in 130-140 days
- Excellent cooking quality

**Brinjal: Arka Harshitha**

- This line has been derived from cross between IIHR-108 and IIHR-3
- Plants tall and spreading growth habit with dark green stem and dark green leaves and foliage
- Flower are purple in colour and fruits are green long fruits
- Good keeping and cooking quality
- Yield: 38-40 t/ha in 95-120 days
- Resistant to bacterial wilt



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- Flower are purple in colour and fruits are green long fruits
- Good keeping and cooking quality
- Yield: 38-40 t/ha in 95-120 days
- Resistant to bacterial wilt



### Okra GMS line

- Plants medium tall, robust with 2 branches
- Fruit dark green & Fruit length (7-12 cm)
- It is in 3 different genetic back ground (Arka Anamika, Arka Abhay& multiple ribs types)
- Fruit has 5-6 ribs, thin, smooth, and tender
- Suitable for fresh market.
- Harvesting 45-50 days after sowing.



### Okra F1 hybrid – Arka Nikita

- It is a hybrid between GMS-4 X IIIHR-299-14-11-585
- It is developed through geneic male sterile line Early flowering
- It takes 39 days for the first flower appearance and 43 days for first picking of fruits
- It is rich in minerals like potassium (3.7 %), calcium 997 mg /100 g)and magnesium
- Crop duration: 125 -130 days
- Yields 21-24 t/ha





### French Bean: Arka Sharath

- It is a high yielding, string less with smooth, round pods (ring bean type)
- Plants bushy and photo insensitive
- Pods are round on cross section suitable for steamed and processing beans. Pods crisp with no parchment
- Pod yield: 20 t/ha in 70 days

### French Bean: IIHR 55-1

- It is an advance breeding line tolerant to Mung Bean Yellow Vein Mosaic Virus (MYMV)
- Pods are dark green, round smooth, straight and stringless, crisp with no parchment
- Plants bushy and photo insensitive
- Pod yield: 12 t/ha in 70 days.



### Garden Pea IIHR 1-2

- Heat tolerant
- It is a mid season variety tolerant to high temperature (33-35<sup>0</sup>C) with 5.0 t/ha
- Pods are 7-8 cm with green seeds
- Duration: 90 days
- Pod Yield 10 t/ha

### **Dolichos: Arka Sambhram**

- Pods are flat, light green, medium long (13-15 cm), medium width (1.5 cm)
- Plants are medium height, 50 % flowering in 40 days and pods are ready for harvest in 55 days
- Pod yield: 20 t/ha in 90 days



### **Dolichos: Arka Amogh**

- Plants are medium tall, 50 % flowering in 40 days and pods are ready for harvest in 55 days
- Photo insensitive
- Pods are long, light Green, slightly curved without parchment
- Number of Pods: 45-50/plant
- Pod yield: 20 t/ha in 90 days

### **Dolichos: Arka Soumya**

- Pods are slender (1.0 cm width), medium long (13-15 cm)
- Plants are medium tall, 50 % flowering in 45 days and pods are ready for harvest in 55 days
- Pod yield: 20 t/ha in 90 day





### Cauliflower variety: Arka Spoorthi

- Suitable for tropical conditions
- Suitable for Kharif & Rabi seasons
- Leaf orientation Horizontal, elliptic, dark green, glossy leaves
- optimum temp range of 20- 25<sup>0</sup>C
- Moderately resistant to Alternaria leaf spot, downy mildew
- Average curd weight is 332g
- Curd yield is 166 q/ha in 65-75 days duration

### Cauliflower variety: Arka Vimal

- Suitable for tropical conditions
- Leaf orientation Semi-erect, narrow elliptic, dark green, glossy leaves
- Suitable for Kharif & Rabi seasons
- Optimum temp range of 20-25<sup>0</sup>C.
- Moderately resistant to Alternaria leaf spot, downy mildew
- Average curd weight is 374g
- Curd yield is 187 q/ha in 75-80 days





### Ridge gourd Variety:

#### Arka Prasan:

- Early flowering variety
- First female flower appears at 9<sup>th</sup> node
- Takes 42-45 days for first picking
- Green, long, tender fruits
- Excellent cooking quality
- Nutritionally rich in antioxidant activity and minerals like phosphorus, Calcium and zinc
- Yields 26.0 t/ha in 120-135 days duration





<p><b>Ridge gourd Hybrid:</b> <b>Arka Vikram:</b></p> <ul style="list-style-type: none"> <li>• Early flowering hybrid,</li> <li>• First female flower appears at 9<sup>th</sup> node,</li> <li>• Takes 46 days for first picking,</li> <li>• Green, long, tender fruits</li> <li>• Excellent cooking quality,</li> <li>• Nutritionally rich in antioxidant activity and minerals like potassium, calcium, iron, zinc and manganese.</li> <li>• Yields 34.0 t/ha in 120-135 days duration</li> </ul>	
<p><b>Powdery mildew resistant Bitter gourd advanced breeding line:</b> <b>IIHRBTG-144-2-1 (Momodica charantia var. muricata):</b></p> <ul style="list-style-type: none"> <li>• Dark green, deeply lobed leaves</li> <li>• Fruit is small, dark green, discontinuous ridges</li> <li>• Resistant to powdery mildew (PDI=1.67)</li> <li>• Yield is 8.8t/ha</li> </ul>	 <p><b>Powdery mildew resistant line, BTG-144-2-1</b></p>

**Other lines and varieties available for Licensing:**

**Tomato Lines:**

- 1 Advanced breeding line No. IIHR-2892 (BC1 F1-26-9-6-33-4-4-3) with resistance to ToLCV in PKM1 fruit type
- 2 Advanced breeding line No. IIHR-2611 (TV-55) with resistance to ToLCV in oblate fruit type
- 3 Advanced breeding line No. IIHR-2919 (TOLCVR4-F3-206-2-1) with resistance to ToLCV in oblate fruit type
- 4 Advanced breeding line No. IIHR-2920 (TOLCVR4-F3-38-1-1) with resistance to ToLCV in oblate fruit type
- 5 Advanced breeding lines for combined resistance to Bacterial wilt (BW) and Tomato Leaf Curl Virus (ToLCV)- TLBR-3
- 6 Advanced breeding lines for combined resistance to Bacterial wilt (BW) and Tomato Leaf Curl Virus (ToLCV) TLBR-4
- 7 Advanced breeding lines for combined resistance to Bacterial wilt (BW) and Tomato Leaf Curl Virus (ToLCV)- TLBR-5

- 8 Advanced breeding lines for combined resistance to Bacterial wilt (BW) and Tomato Leaf Curl Virus (ToLCV)- TLBR-6
- 9 Processing lines (PR-3 & PR-4) with high yield >1.5kg/pt.
- 10 High TSS line KTS-1 & 2
- 11 Advanced breeding line No IIHR-2917 (ToLCVR4-F3-188-1-1) with resistance to ToLCV in oblong fruit type
- 12 Advanced breeding line No IIHR-2907 (TS-1-28-21-5-0) or TMB 488 SB with resistance to ToLCV in oblate fruit type
- 13 Advanced breeding line No. IIHR-2892(BC1F1-26-9-6-33-4-4-3) with resistance to ToLCV in PKM1 fruit type
- 14 Advanced breeding line No. IIHR-2890(BC1F1-26-9-2-35-5-3-7) with combined resistance to ToLCV + BW in Arka Vikas fruit type
- 15 Advanced breeding line No. IIHR-2867 (38-10) developed by crossing TLBR-3 x IIHR-837. It is resistance to BW in oblate fruit type
- 16 Advanced breeding line No. IIHR-2296(CLN-1463) with resistance to BW in oblate-round fruit type
- 17 Advanced breeding line No. IIHR-2852(CLN-3125P) with resistance to ToLCV + BW in oblong fruit type
- 18 Advanced breeding line No. IIHR-2852(CLN-3125A) with resistance to ToLCV + BW in oblong fruit type
- 19 Advanced breeding line No. IIHR-2885 (TLBER-7-4-11-34) with resistance to ToLCV+BW+EB in oblate-round fruit type
- 20 Advanced breeding line No. IIHR-2888 (TLBER-39-7-41-43) with resistance to ToLCV+BW+EB in oblate-round fruit type
- 21 Advanced breeding line No. IIHR-2919 (ToLCVR4-F3-206-2-1) with resistance to ToLCV in oblong fruit type
- 22 Advanced breeding line No. IIHR-2918 (ToLCVR4-F3-21-9-1) with resistance to ToLCV in oblong fruit type
- 23 Advanced breeding line No. IIHR-2920 (ToLCVR4-F3-106-2-1) with resistance to ToLCV in oblong fruit type
- 24 Advanced breeding line No. IIHR-2852(CLN-3241 H-27) with resistance to ToLCV(Ty2+Ty3) in oblong fruit type

**Okra Advance lines:** IIHR- 386-7-2

- Plants are medium tall , 2 narrow angle branches ,dark green smooth fruits, and 5 ribs.
- Resistant to YVMV and ELCV under natural field condition.
- Purple colour petal base both side. Fruit yield 15 t/ha
- Dark green , thin and smooth short fruit

**Okra Advance lines:** IIHR-386-5-1

- Plant are medium tall , 3 narrow angle branches ,dark green smooth fruits, 5 ribs,
- Resistant to YVMV and ELCV under natural field condition.
- Purple colour petal base both side. Fruit yield 16 t/ha
- Dark green , thin and smooth fruit



### **Cauliflower variety: Arka Spoorthi**

- Suitable for tropical conditions
- Suitable for Kharif & Rabi seasons
- Leaf orientation Horizontal, elliptic, dark green, glossy leaves
- optimum temp range of 20- 25<sup>0</sup>C
- Moderately resistant to Alternaria leaf spot, downy mildew
- Average curd weight is 332g
- Curd yield is 166 q/ha in 65-75 days duration

### **Cauliflower variety: Arka Vimal**

- Suitable for tropical conditions
- Leaf orientation Semi-erect, narrow elliptic, dark green, glossy leaves
- Suitable for Kharif & Rabi seasons
- Optimum temp range of 20-25<sup>0</sup>C.
- Moderately resistant to Alternaria leaf spot, downy mildew
- Average curd weight is 374g
- Curd yield is 187 q/ha in 75-80 days



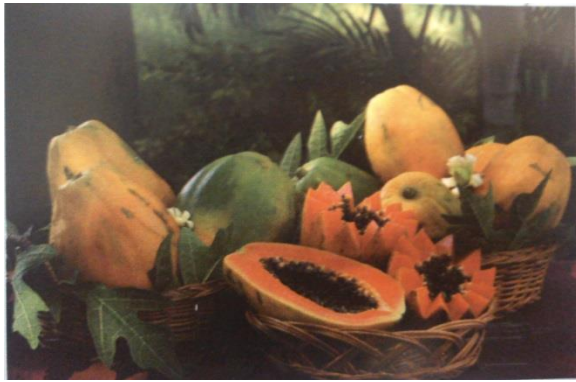
### **Watermelon: Arka Madhura**

- It is a triploid seedless watermelon with
- T.S.S. is 14 %
- Fruits are dark green, red flesh, crispy granular texture and sweet taste.
- Suitable for protected cultivation
- Duration: 110 days
- Yield potential of 60 t/ha



### Watermelon: Arka Muthu

- High yielding variety with unique character of dwarf vine of 1.2 mt, vine length,
- Shorter internodal length and early maturing type (75-80 days)
- It has round to oval fruits with dark green stripes and deep red flesh
- Average fruit weight is 2.5-3 kg with T.S.S ranging from 12 to 14 %.
- Fruit yield: 55 to 60 t/ha.



### Papaya: Arka Prabhath

(Surya x Tainung-1)x Local Dwarf

- Advanced generation gynodioecious variety
- Pulp: Firm (5.9 kg/c m<sup>2</sup>)
- Colour: Orange red
- Fruit wt: 900-1200g
- TSS: 12-13° Brix
- Yield: 90-100 kg / plant
- Keeping quality: Good

### Papaya: Arka Surya

- It is the offspring of Sunrise Solo x Pink Flesh Sweet
- Advanced generation gynodioecious variety
- Fruits medium (~ 700 g), small fruit cavity
- Pulp : Thick ( 3 – 3.5 cm), deep red and sweet
- TSS : 13-14<sup>0</sup> B
- Potential Yield: 60 – 70 kg /plant.





### Guava: Arka Kiran

(Kamsari x Purple Local)

- It is from the cross Kamsari x Purple Local
- Semi-vigorous and amenable for high density planting and early bearer than its parents
- Pulp: Deep pink in colour with good flavour
- Fruit wt: 180-200g
- Seed softness: 9.0 to 10.0 kg/cm<sup>2</sup>
- TSS: 11-12.5° Brix
- Lycopene content: 7.45mg/100g
- Ascorbic acid ; 190-200 mg/ 100 mg

### Guava : Arka Rashmi

- It is from the cross Kamsari x Purple Local
- This variety is prolific and early bearer than its parents
- The plants are semi-vigorous and amenable for high density planting
- It is a dual purpose variety , suitable both as table purpose and for processing
- Medium sized ( 180-200 g) round fruits with deep pink pulp and good flavour, medium soft seeds ((9.0 to 10.0 kg/cm<sup>2</sup>), with good TSS (11.0-12.0° Brix ), high ascorbic acid (220-235mg/100g) with medium lycopene content(4.5 to 6.10 mg/100g)



### Anona: Arka Sahan

- It is a progeny of Island gem (Annona atemoya Hort.) X Mammoth (A. squamosa L.)
- Waxy bloom skin, light green in colour, moderately thick (0.5 cm), large, flat eyes
- Resistant to drought
- Fruits ripen in 6-7 days
- Fruit size: 210 g
- Extended keep quality for 3-4 days as compared to other varieties.
- Yield: 12 t/ ha

### Rose: Arka Swadesh

- Arka Swadesh is ideal for cut flower production under protected cultivation.
- It has shining foliage and flowers of attractive red color. Flower production starts 6 months onwards from planting.
- Yielding capacity of 145 fl stalks/sq.mt/year. It produces long stalk flowers with an average stalk length of 65-70cm.
- Medium sized flowers with good keeping quality (6 days).



### Rose: IIHR 9-1

- High yielding
- Identified for cut flower production under protected cultivation
- Medium sized flowers with good keeping quality (6 days)
- Flowers: 145 flowers/stalk/sq.mt/year
- Stalk length : 65-70cm
- Shining foliage & attractive red coloured flowers

### Rose: Arka Parimala

- It has field tolerance to thrips and It black spot.
- is a fragrant variety suitable for open field cultivation with multiple utility as loose flower and for cut flowers
- Yield potential is 10lakh fls/acre/year







### Rose: Arka Ivory

- Ideal for cut flower production under protected cultivation.
- Flowers are creamish white in colour (RHS colour chart, White Group 155-A)
- Potential yield of 110 flowers / m<sup>2</sup>.
- Moderately resistant to mites.

### Rose: Arka Savi

- Commercial cultivation in open field for loose flower production
- It is a spray category of rose belonging to floribunda group.
- Gametophytic Selection
- Purple pink flower (RHS colour chart Red purple group 66-A)
- Flowers are produced in bunches
- Yield: 30 t/acre/year
- Long shelf life of 5-6 days



### Rose: Arka Sukanya

- It is a fragrant rose variety with 0.22% of concrete yield in fresh flowers.
- Highly Floriferous and ideal choice for garden display.
- Potential variety for aroma extraction and aroma therapy.



### **Rose: Arka Pride**

- Cut flower variety suitable for open field and protected cultivation
- Flowers are orange in colour ( RHS colour chart Orange Red Group 33-A)
- Potential yield of 120flowers / m<sup>2</sup>

### **Marigold: Arka Bangara**

- Flowers are of yellow gold colour (RHS colour chart No. 12-A in Yellow Group)
- The variety comes to flowering by 40-45 days.
- Yield potential of the variety is 6-6.5 tons/acre



### **Marigold: Arka Bangara – 2**

- Flowers are gold yellow in colour (Yellow group 9A in RHS colour chart).
- Flowering starts 40-45 days after planting and continues to flower for 60 days.
- Flowers are compact and large in size (7-7.5cm)
- Yield potential is 8-10 tons/acre.



### Marigold: Arka Agni

- Flowers are orange in colour ( RHS colour chart Orange Group N25C).
- Flowering starts 40-45 days after planting and continues to flower for 60 days.
- Flowers are compact and large in size (7.5-8 cm).
- Yield potential is 8-10 tons/acre.

### Crossandra: Arka Kanaka

- The F1 hybrid selection is a cross between 'Local Yellow' X 'Delhicrossandra'
- Bigger size flowers, which is 67% higher than the local cultivar.
- Novel flower colour: Orange.
- The weight / 100 flowers: 11.9 g.
- Yield: 5.01 t /acre/year



### Crossandra: Arka Ambara

- F1 hybrid, cross between Local X Lakshmi
- Bigger size flowers (4.16 cm diameter)
- Weight of 100 flowers: 13 g
- Suitable for loose flower & garland
- Yield almost double than local varieties
- Flower Colour: reddish orange
- Yield: 5.9 t/acre/year



### **Tuberose Varieties: Arka Nirantara**

- Days to flower : 90 days
- Spike length : 100 cm
- Flowers per spike : 59
- Yield : 22t/ha/yr
- Vase life : 7 days



### **Tuberose Varieties: Arka Suvasini**

- Days to flower : 115 days
- Spike length : 95 cm
- Flowers per spike : 59
- Yield : 1.5 lakh spikes/ha/yr
- Vase life : 8 days



### **Tuberose : Arka Prajwal**

- Days to flower : 95 days
- Spike length : 95.6 cm
- Flowers per spike : 52.5
- Yield : 18t/ha/yr
- Vase life : 8 days

### **Tuberose: Arka Shringar**

- Loose flowers of this hybrid can be used for garlands and for extraction of tuberose concrete.
- Days to flower : 100 days
- Spike length : 72 cm
- Flowers per spike : 45
- Yield : 15t/ha/yr
- Vase life : 8 days
- Tolerant to root knot nematodes





### Tuberose: Arka Vaibhav

- Days to flower : 120 days
- This new hybrid bears double flowers on medium spikes
- Spike length : 89 cm
- Flowers per spike : 40
- Yield : 2 lakh spikes/ha/yr
- Vase life : 7 days

### Gladiolus: Arka Amar

- It is a pedigree selection of Watermelon Pink x Aarti.
- It is selected for its flower quality and *Fusarium* wilt resistance.
- Florets are red (46.D) with red (45.B) margin & white (155.B) on tepals with yellow blotch (2.C).
- Florets wavy and arranged in double rows.
- Yields 1-2 marketable spikes / corm



### Gladiolus: Arka Naveen

- It is a pedigree selection of the cross 74-39-1 x Tropic Seas
- Novel flower colour and quality
- Florets are purple violet (82.C) having red purple (72.B) margin with yellow green (154.D) blotch, florets are wavy
- Yields 1-2 marketable spikes/corm.

### Gladiolus: Arka Gold

- Developed by hybridization followed by selection of Green bay x Gold medal 412
- It is selected for its flower quality
- Florets are red (4.C) having yellow (6.C) lower lip with red (39.A) blotch.
- Florets slightly ruffled and are wavy.
- Yield: 1-1.5 marketable spikes/corm.



### Carnation: Arka Tejas

- It is an interspecific hybrid between *D. caryophyllus* and *D. chinensis*.
- Dark red flowers with contrasting white anthers and lush green foliage
- Suitable for pot plant, for landscaping and interior arrangements
- Yield: 20-25 flowers/stalk

### Carnation: Arka Flame

- First Indian variety in carnation
- Standard Carnation
- Tolerant to nematodes
- Colour: Red with smooth petal edges
- Straight and long flower stalk
- Yields 300 to 360 flowers/Sqm./year







### Chrysanthemum: Arka Pink Star

- Early (flowers at about 58 days after planting)
- Days to flower – 63 days
- Suitable for pot culture
- No. of flowers per plant – 318
- Flower type: Semi double

### Mucuna: Arka Dhanwantari

- Seed yield ( 4-4.5 t/ha\*)
- L dopacontent (4.0-4.5%)
- Non irritanttrichomes (smooth pods)
- Long duration (185-190 days)
- Purple flowers on long rachis
- No fruiting in basal nodes
- Shiny black seed coat; Medium size seeds



### Mucuna: Arka Aswini

- Seed yield (2.5-3.0 t/ha)
- L-dopa content (3.5-4.0%)
- Non irritant trichomes
- Short duration (120-130 days)
- Purple flowers on short rachis
- Fruiting in basal nodes
- Immature fruits black in colour
- Mottled black seed coat , bold seeds



### Black Pepper: Arka Coorg Excel (IC599082)

- This variety suits for foggy climate and less rainfall area
- Regular bearer variety
- Green yield:7.69 (kg/vine)
- Dry yield:3.05 (kg/vine)