



## ICAR- IIHR Varieties and Technologies for Commercialization



### Seed, Planting material and Parental lines

Crop	Variety/Hybrid	License Fee (without royalty)
<b>Vegetable crops</b>		
Tomato	Arka Samrat	4,00,000
	ArkaRakshak	4,00,000
	Hybrid 162 F1 Hybrid	3,00,000
	Advanced breeding line No. IIHR-2892 (BC1 F1-26-9-6-33-4-4-3) with resistance to-ToLCV in PKM1 fruit type	3,00,000
	Advanced breeding line No.IIHR-2611 (TV-55) with resistance to TOLCV in oblate fruit type	3,00,000
	Advanced breeding line No. IIHR-2919 (ToLCVR4-F3-206-2-1) with resistance to ToLCV in oblong fruit type	3,00,000
	Advanced breeding line No.IIHR-2920 (TOLCVR4-F3-38-1-1) with resistance to TOLCV in oblate fruit type	3,00,000
	TLBER 12-21-43-1 (ABL)	2,00,000
	TLBER 38-7-4-2 (ABL)	2,00,000
	TLBER-11-38-7 & 12-21	2,00,000
Onion	ArkaKeerthiman	5,00,000
	ArkaLalima	5,00,000
	ArkaBheem	5,00,000
	MS 48	4,00,000
	MS 65	4,00,000
	ArkaSwadista (White Onion)	3,00,000
	Arka Sona (Yellow Onion)	3,00,000
Chilli	ArkaHarita	5,00,000
	Arka Meghana	5,00,000
	ArkaKhyathi	5,00,000
	ArkaSweta	5,00,000
	High yielding F1 hybrids MSH-11	5,00,000
	Powdery mildew resistant Male sterile line with maintainer-MS-3	3,50,000
	Male sterile line with maintainer-MS-1	3,00,000
	Male sterile line with maintainer-MS-2	3,00,000
	Male sterile line with maintainer-MS-4	3,00,000
	Powdery mildew resistant lines(With >50g DY / pt)PMR line 1	1,00,000

	Powdery mildew resistant lines(With >50g DY / pt)PMR line 2	1,00,000
Brinjal	Arka Anand (BWBH-3)	3,00,000
	Bacterial wilt resistant lines in green long &manjarigota type-IIHR-3	1,00,000
	Bacterial wilt resistant lines in green long &manjarigota type-IIHR-7	1,00,000
	Bacterial wilt resistant lines in green long &manjarigota type 2-BMG-1	1,00,000
	Bacterial wilt resistant lines in green long &manjarigota type-Sel-2	1,00,000
French bean	Arka Arjun	3,00,000
	Arka Sharath	2,00,000
	Arka Anoop	2,00,000
Dolichos	Arka Soumya	2,00,000
	ArkaSambhram	2,00,000
	ArkaAmogh	2,00,000
	ArkaSwagath	2,00,000
Okra	ArkaNikitha	4,00,000
	Okra GMS-1	3,00,000
	Okra GMS-2	3,00,000
	Okra GMS-3	3,00,000
	Okra GMS-4	3,00,000
	Advanced Breeding line IIHR-385-5-1	50,000
	Advanced Breeding line IIHR-386-7-2	50,000
Peas	Arka Priya	2,00,000
	Arka Pramod	2,00,000
	Arka Apoorva	2,00,000
Yard long bean	Arka Mangala	2,00,000
Amaranth	ArkaSamraksha	2,00,000
	Arka Varna	1,00,000
Coriander	ArkaIsha	1,00,000
Palak	Arka Anupama	1,00,000
Bell pepper	Bell pepper CPMR line	1,00,000
Black Pepper	Arka Coorg Excel	50,000
Musk Melon	Arka Siri	6,00,000
Watermelon	Arka Akash	2,00,000
	Arka Aishwarya	2,00,000
<b>Fruit crops</b>		
Guava	Arka Kiran	1,00,000
	Arka Rashmi	1,00,000
	Arka Poorna	75,000
Papaya	ArkaPrabhath	1,50,000
Mango	ArkaSuprabhath	1,00,000

<b>Medicinal &amp; Ornamental crops</b>		
Crossandra	ArkaAmbara	40000
	ArkaShravya	25000
Marigold	Arka Agni	25000
	Arka Bangara-1	25000
	Arka Bangara-2	25000
Rose	ArkaSavi	50000
Gerbera	ArkaAsawa	50000
	ArkaNesara	50000
Mucuna	Arka Shubra	10000
	Arka Shukla	10000
Ashwagandha	Arka Ashwagandha	50000

**Vegetable crop varieties/hybrids available for seed production programme and procurement rate under Seed village Concept**

<b>Sl.No.</b>	<b>Crop</b>	<b>Variety/hybrid</b>	<b>Procurement Rate (Rs. Per kg)</b>
1	Tomato Hybrid	Arka Rakshak (F1)	8500
2	Tomato Hybrid	Arka Samrat (F1)	8000
3	Tomato Hybrid	Arka Abedh (F1)	8000
4	Tomato Hybrid	Arka Apeksha (F1)	8000
5	Tomato Hybrid	Arka Vishesh (F1)	8000
6	Chilli Hybrid	Arka Kyati (F1)	6000
7	Chilli Hybrid	Arka Meghana (F1)	5500
8	Chilli Hybrid	Arka Haritha (F1)	5500
9	Chilli Hybrid	Arka Swetha (F1)	5500
10	Capsicum	Arka Mohini	7000
11	Capsicum	Arka Gaurav	7000
12	Capsicum	Arka Basant	7000
13	Capsicum	ArkaAtulya(F1)	16000
14	Brinjal Hybrid	Arka Anand (F1)	2000
15	Brinjal	ArkaHarshitha	400
16	Brinjal	Arka Keshav	400
17	Brinjal	Arka Neelkant	400
18	Brinjal	Arka Nidhi	400
19	Water Melon	Arka Muthu	1000
20	Pumpkin	ArkaSuryamukhi	450
21	Ridge Gourd	ArkaPrasan	700
22	Ridge Gourd	Arka Vikram (F1)	1200
23	Okra	Arka Anamika	160
24	Okra	Arka Nikita (F1)	400
25	Onion	Arka Kalyan	800

26	Onion	Arka Niketan	800
27	Onion	ArkaLaliman(F1)	1300
28	Onion	ArkaKirthiman(F1)	1300
29	Onion	ArkaPragathi	800
30	Onion	Arka Ujjwal	850
31	Onion	Arka Bindu	250
32	Onion	Arka Yojith	850
33	Onion	Arka Bheem	800
34	Cowpea	Arka Suman	250
35	Cowpea	Arka Garima	250
36	Cowpea	ArkaSamrudhi	250
37	Yard Long Bean	Arka Mangala	500
38	Garden Pea	Arka Priya	150
39	Garden Pea	Arka Apoorva	150
40	Garden Pea	Arka Pramod	150
41	French Bean	Arka Suvidha	170
42	French Bean	ArkaKomal	170
43	French Bean	Arka Anoop	170
44	French Bean	Arka Arjun	170
45	French Bean	ArkaSharat	170
46	French Bean (Pole Type)	Arka Sukomal	700
47	Dolichos(Bush Type)	Arka Jay	200
48	Dolichos(Bush Type)	ArkaAmogh	200
49	Dolichos(Bush Type)	ArkaSambhram	200
50	Dolichos(Bush Type)	Arka Sowmya	200
51	Dolichos (Pole Type)	ArkaSwagath	400
52	Dolichos(Pole Type)	ArkaVistar	400
53	Dolichos(Pole Type)	Arka Krishna	400
51	Veg. Amaranth	Arka Suguna	120
52	Palak	Arka Anupama	150
53	Coriander	ArkaIsha	400

**Ornamental and medicinal crops seed production programme and procurement rate under Seed Village Concept**

Sl No.	Crop	Variety	Procurement Rate (Rs/kg or Rs/No.)
1	Marigold	Arka Agni	1.50/cutting
2	Marigold	Arka Bangara 2	1.50/cutting
3	Rose	Arka Savi	15/budded plant
4	Rose	All varieties except Arka Savi	11/budded plant
5	Tuberose	Arka Prajwal (Mother bulb)	60/kg

6	Tuberose	Arka Prajwal (Medium size)	70/kg
7	Gladiolus	All varieties (Large size corms)	3/corm
8	Gladiolus	All varieties (Medium size corms)	2.50/corm
9	Gladiolus	All varieties (Small size corms)	2/corm
10	Gladiolus	All varieties Large, Cleaned , Graded cormels	500 /kg
11	Crossandra	ArkaChenna, ArkaShravya	1.60/cutting (unrooted)
12	Mucuna	ArkaDhanavantri	70/kg

## Technologies available for Commercialization

### 1. Post Harvest Technologies

Sl. No.	Technologies	License fee without royalty (Rs.)
1	<b>Enzyme clarified jackfruit RTD beverage (ArkaHalasu Ras)</b> <ul style="list-style-type: none"> <li>Contains no added colour, flavour or essence</li> </ul>	50,000 /- Training fee Rs. 5000/-
2.	<b>Jackfruit seed powder based chocolate wrap (ArkaJackolate)</b> <ul style="list-style-type: none"> <li>Chocolate is used as a coating on a ball of jackfruit seed powder enriched with mushroom and sesame.</li> </ul>	50,000/-, Training fee Rs. 5000/-
3.	<b>Jackfruit seed powder and mushroom based biscuits/cookies (ArkaJackies)</b> <ul style="list-style-type: none"> <li>This Product is rich in fibre</li> </ul>	30,000/-, Training fee Rs. 3000/-
4.	<b>Mango Fruit Bar</b> <ul style="list-style-type: none"> <li>It is a concentrated mango fruit product with high nutritional value</li> </ul>	50,000
5.	<b>Shelf life extension of minimally processed cabbage/ fresh cut carrot/peeled garlic/ coriander leaves/ fresh cut cucumber/ fresh cut capsicum/ fresh cut French beans/ fresh cut Radish</b> <ul style="list-style-type: none"> <li>Increases the shelf life of fresh-cut vegetables from 6-22 days under refrigerated conditions depending on the vegetable</li> </ul>	5000/- per each Vegetable
6.	<b>Arka High Humidity Storage Box</b> <ul style="list-style-type: none"> <li>Retain Freshness and shelf life of green leafy vegetables for 48h at ambient conditions.</li> <li>No refrigeration or electricity needed.</li> </ul>	15,000
7.	<b>Technology for production of spray dried avocado powder</b>	<b>50,000/-</b> Training fee Rs. 5000/-
<b>Mushroom Products</b>		
8.	Arka mushroom chutney powder (all 7 types)**	25,000
9.	Arka Mushroom groundnut chutney powder	4000
10.	Arka Mushroom coconut chutney powder	4000
11.	Arka Mushroom moringa leaf chutney powder	4000
12.	Arka Mushroom brahmi chutney powder	4000

13.	Arka Mushroom white sesame chutney powder	4000
14.	Arka Mushroom black sesame chutney powder	4000
15.	Arka Mushroom flax seed chutney powder	4000

## 2. Plant and Soil Health management Technologies

### A. Microbial products- Biopesticides

- Alternative to Chemical pesticides
- Can be used in organic production of fruit and vegetable crops

Sl.No.	Name of Biopesticides	Technology and Data for Provisional Registration 9(3B)	Technology and data for Permanent Registration 9(3) for those who have already taken 9(3b) data from ICAR-IIHR	Technology and data for Permanent Registration. 9(3)
		<b>Without Royalty</b>	<b>Without Royalty</b>	<b>Without Royalty</b>
1.	IIHR- <i>Trichoderma harzianum</i> -1% W.P.	2,50,000	2,75,000	4,00,000
2.	IIHR- <i>Trichoderma viride</i> -1.5% W.P.	2,50,000	2,75,000	4,00,000
3.	IIHR- <i>Pseudomonas fluorescens</i> -1% W.P.	2,50,000	2,75,000	4,00,000
4.	IIHR- <i>Pochonia chlamydosporia</i> -1% W.P.( <i>Verticillium chlamydosporium</i> )	2,50,000	2,75,000	4,00,000
5.	IIHR-Patented technology of combination formulation of <i>Trichoderma harzianum</i> and <i>Pseudomonas fluorescens</i> (Arka Plant yield booster)			5,00,000
6.	IIHR-Patented technology of organic formulation of <i>Pseudomonas fluorescens</i> (Arka Plant growth promoter)			2,50,000

### B. Microbial products-Biofertilizers

- Creates nutrient rich environment in and around the rhizosphere of crops
- Can be used in organic production of fruit and vegetable crops

Sl No.	Technology Name	License Fee (without royalty)
1.	Arka Microbial Consortium (Solid)	4,00,000
2.	Arka Microbial Consortium (Liquid)	4,00,000
3.	Arka Microbial Consortium	5,00,000

	(Solid+ Liquid)	
4.	Arka Actino Plus	3,00,000
5.	Arka Fermented Cocopeat-Nursery seedlings production	3,00,000
6.	Arka Decomposer	1,00,000

### C. Micronutrients formulations

Enable to supply zinc, iron, boron, copper, manganese and molybdenum and secondary nutrients such as magnesium and sulphur in desired quantities to the crops.

Sl No.	Technology Name	License Fee (without royalty)
1.	Banana Micronutrient formulation	4,00,000
2.	Vegetable Micronutrient formulation	4,00,000
3.	Mango Micronutrient formulation	3,00,000
4.	Citrus Micronutrient formulation	2,00,000

### D. Pheromone and Light Traps

Eco-friendly technique for monitoring and management of female fruit flies as a part of IPM in mango, guava, Anona, citrus, avocado and cucurbits etc

Sl. No.	Technologies	License fee without royalty (Rs.)
1	Parapheromone trap for Mango	1,50,000
2.	ArkaDorsolure F blend	8,00,000
3.	ArkaBactro+ blend	2,00,000
4.	Fruit fly trapping technology in cucurbit crops for North Eastern region	40,000
5.	Fruit fly trapping technology in orchard crops for North Eastern region	40,000
6.	<b>Light cum suction trap</b> Light trap, an effective component of integrated management of <i>Tuta absoluta</i> (Lepidoptera : Gelechiidae) on Tomato under polyhouse conditions	55,000 (No training fee)

### E. Botanical formulations- Alternative to the use of synthetic insecticides

Sl. No.	Technologies	License fee (Rs.)
1.	Neem Soap	1,50,000
2.	Pongamia Soap	1,50,000
3.	Arka Borer control (Improved version of Sealer cum Healer for the control of Mango stem borer)	4,00,000

### 3. Farm Implements & Machineries

SI No.	Technology Name	License Fee (without royalty)
	<b>Vegetable nursery machinery</b>	
1	Root media sieving and bag filling unit	5,000
2	Rooting media mixer cum bag filling machine	5,000
3	Protray dibbler cum vacuum seeder	5,000
4	Rooting media elevating, sieving, mixing and bag filling machine-high capacity Single unit	20,000
5	Automatic protray dibbler cum step seeder for vegetable nursery	50,000
	<b>Transplanting and weeding machinery</b>	
6	Tractor operated raised bed former cum transplanter	5,000
7	Tractor operated raised bed crop weeder	5,000
	<b>Machinery for onion cultivation</b>	
8	Power operated onion seed extractor	10,000
9	Manual drawn onion seeder	2,000
10	Animal drawn onion seeder	2,000
11	Tractor drawn broad bed former cum onion seeder	2,000
12	Tractor operated onion digger cum windrower	10,000
13	Power operated onion de-topper	30,000
14	Power operated onion size grader	20,000
	<b>Harvesters</b>	
15	Mango	2,000
16	Sapota/Pomegranate/Guava	2,000
17	Lime	2,000
18	Tractor operated hydraulic platform for harvesting, spraying and pruning	10,000
	<b>Mushroom spawn and cultivation machinery</b>	
19	Grain cleaner	2,000
20	Grain boiler	10,000
21	Boiled grain and chalk powder mixer cum bag filler	10,000
22	Spawn inoculators	2,000
23	Solar energy based paddy straw pasteurizer	10,000
24	Solar energy based autoclave for sterilization of spawn and paddy straw	10,000
	<b>Raw Mango Processing machinery</b>	
25	Size grader	2,000
26	Raw mango peeler	10,000
27	Raw mango slicer	10,000



28	Raw mango cube cutter	10,000
29	Automatic Hot water treatment plant	50,000
30	Garlic machinery- Garlic bulb breaker and peeler	10,000
31	Power operated Watermelon seed extractor	10,000
32	Hand operated Pomegranate aril remover	2,000
33	Fruit and Vegetable vending van	50,000
34	ArkaNeelachalMechanisedRaw Jackfruit Peeler	10,000 (for drawing of the machine only)
35	Arka Neelachal Fertree Drill	30,000

**\*In addition to the above mentioned License fee for all of the above Technologies, GST @18% is applicable**

#### **4. Biotechnological Products**

##### **Embryogenic Cell Suspension for Mass Multiplication of Banana cv Elakki Bale**

- This technology helps in large scale production by multiplication of Embryogenic Cell Suspension over a period of 6 months. One embryogenic calli can produce around one lakh plants.
- Cost of the Technology is 50,000/- + 18% GST

##### **For Further Details Contact**

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