

Information on Biofortified Varieties of Agri-horti crops from ICAR-Indian Institute of Horticultural Research, Bengaluru

Proposal: Testing Health benefits of the following biofortified/ nutrient dense varieties of various crops developed at ICAR-IIHR, Bengaluru.

1. Fruit Crops

Crop / Variety	Key Nutrients	Nutrient Values	Notable Features
Papaya – Arka Prabhath	Carotenoids, Lycopene, Vitamin C	<ul style="list-style-type: none"> • Carotenoids: 3554 µg/100 g • Lycopene: 1469 µg/100 g • Vitamin C: 43.6 mg/100 g 	Deep red pulp, high sweetness, excellent antioxidant profile
Guava – Arka Rashmi	Vitamin C, Lycopene	<ul style="list-style-type: none"> • Ascorbic acid: 235 mg/100 g • Lycopene: 5 mg/100 g 	Red pulp, low oxalate, strong antioxidant potential
Jamun – JN-I/1	Anthocyanins	<ul style="list-style-type: none"> • Anthocyanin content: 66.94 mg/100 g 	Deep purple fruits, high TSS, strong antioxidant pigment

2. Medicinal and Flowers

Crop / Variety	Key Nutrients / Active Compounds	Nutrient Values	Notable Features
Centella – Arka Prabhavi (CA-13)	Total triterpenes, Asiaticoside	Triterpenes: 6–8% Asiaticoside: >3%	High-value medicinal line ideal for extraction industries
Mucuna – Arka Shubra	L-Dopa	5.43%, 269.67 kg/ha L-Dopa yield	Long-duration variety with non-irritant trichomes; very high medicinal metabolite
Marigold – Arka Shubha	Carotenoids	3.25% (g/100 g dry wt)	Rich orange flowers; identified as a carotenoid-rich hybrid

Bhringaraj – Arka Bhringaraj	Wedelolactone	0.5–0.6% (vs. 0.1–0.2% in local check)	High biomass and significantly higher active compound content
Centella – Arka Divya (CA-1)	Vitamin A, minerals	Vitamin A: 32.33 mg/100 g	High nutrient accumulation; broad leaves; suitable as leafy vegetable

3. Vegetables

Crop / Variety	Biofortified Trait	Nutrient Value	Notes
Watermelon – Sel-4 (Biofortified Carotene-rich)	High carotene	28.34 µg/g (≈63% higher than red types)	Orange-fleshed Jubilee segment, 80 t/ha yield
Carrot – Arka Suraj	High carotene	11.27 mg%	Deep orange roots, tropical seed setting
Coriander – Arka Isha	Very high Vitamin C	167 mg/100 g (FW)	Multi-cut leafy type, excellent aroma