

Government of Karnataka

No:HORTI/180/HCM/2020

Karnataka Government Secretariat,
M.S.Building,
Bengaluru, Dated: 20/03/2024.

From:

Chairman, State Seed Sub Committee and
Secretary to Government of Karnataka
Horticulture & Sericulture Department,
Bengaluru.

To:

Secretary, Central Seed Committee-cum-
Deputy Commissioner (Seeds-QC),
Ministry of Agriculture & Farmers welfare,
Department of Agriculture & Farmers Welfare,
New Delhi- 110001.

Sir,

Sub: Forwarding of approved proceeding of State Seed Sub Committee meeting
to Central Seed Committee for release/notification of varieties -reg.

Ref: No. DR/UHS/Est-To/UHSB/2601/2023-24 Dated: 22/02/2024

As per the above cited reference, the State seed sub Committee meeting was held at Vikas Soudha, Bengaluru on 13/03/2024 for Horticultural crops for the state of Karnataka. A total number of 44 varieties of 29 Horticultural Crops submitted by different Universities/Research Institutes viz., UHS, Bagalkot, UAS, Bengaluru, KSNUAHS, Shivamogga, UAS, Raichur, ICAR-IIHR, Bengaluru, ICAR-IISR, RS, Appangala, ICAR-DCR, Puttur were accepted for release.

The approved proceeding of State seed sub Committee is sent to the Central Seed Committee for further action for release/notification of varieties in the Gazette.

Thanking you,

Yours Sincerely,



DR. SHAMLA IQBAL IAS.
Secretary to Government
Horticulture and Sericulture Department

**Proceedings of
10th State Seed Sub-Committee for
Horticulture Crops 2023-24**

Date: 13-03-2024

Venue: Room No. 222, Vikas Soudha, Bengaluru-01

Proceedings of the 10th SVRC Meeting held on 13th March 2024 at Vikas Soudha, Bengaluru

Agenda: To consider the release/notification of new varieties submitted

The State Variety Release Committee (SVRC) meeting was held at Vikas Soudha on 13-03-2024. The meeting commenced with Welcome Speech by Dr. K. Dhanaraj, Joint Director of Horticulture, Lalbagh. He welcomed Dr. Shamla Iqbal, IAS, Secretary to Govt. of Karnataka, Dept., of Horticulture & Sericulture, Shri. Ramesh D. S., IAS, Director, Horticulture Department, GOK and all committee members, Dr. Maheswarappa H. P., Director of Research UHS, Bagalkot, and all other members *viz.*, Regional Manager, National Seeds Corporation, Managers of Private Companies and also welcomed all scientists present to the meeting to present their variety proposals.

A total number of 44 varieties of 29 horticultural crops were submitted by different Universities / Research Institutes *viz.*, UHS, Bagalkot, UAS, Bengaluru, KSNUAHS, Shivamogga, UAS, Raichur, ICAR-IIHR, Bengaluru, ICAR-IISR RS, Appangala, ICAR-DCR, Puttur for consideration and recommendation to the Central Seed Committee for the release / notification. University / Institute wise number of proposals submitted are as follows:

Sl. No.	Institution	No. of crops	No. of varieties
I.	UHS, Bagalkot	11	14
II	UAS, Bengaluru	2	4
III.	KSNUAHS, Shivamogga	1	1
IV.	UAS, Raichur	1	2
V.	ICAR-IIHR, Bengaluru	12	19
VI.	ICAR-IISR, RS Appangala	1	1
VII.	ICAR-DCR, Puttur	1	3
Total		29	44

I. UHS, Bagalkot, Udyanagiri, Navanagar, Karnataka

1. Shallot Onion: Krishna Prabha Chitravathi

Name of the Scientist	Breeding Method	Salient Features	Proposed Zone	Remarks	Accepted/ Rejected
Dr. B. Fakrudin Professor and Dean, DSLD CHEFT, Devihosur, Haveri.	Selection from a heterogeneous population	<ul style="list-style-type: none">• It gives 42.16 per cent higher yield over check.• Small elongated bulbs.• Gives uniform bulbils,• Copper to red skin colour• Mild sweeter flavour.	Zone-3, Zone-5, Zone-6, Zone- 8, Zone-7 of Karnataka	Higher yielding and speciality onion for curry	Accepted for release

2. Cluster bean: Krishna Prabha Sangama

Name of the Scientist	Breeding Method	Salient Features	Proposed Zone	Remarks	Accepted/ Rejected
Dr. B. Fakrudin Professor and Dean, DSLD CHEFT, Devihosur, Haveri.	Induced mutation breeding	<ul style="list-style-type: none">• It gives 44.82 per cent higher yield over check.• It has wider adaptability• It has water stress tolerance.• Light green, tender pods.• Immature seeds-whitish grey colour.	Zone-3, Zone-5, Zone-6, Zone- 8, Zone-7 of Karnataka	It gives higher yield, has light green, tender pods, immature seeds-whitish grey colour and pods are highly palatable.	Accepted for release

3. Vegetable Soybean: Krishna Prabha Pinakini

Name of the Scientist	Breeding Method	Salient Features	Proposed Zone	Remarks	Accepted/ Rejected
Dr. B. Fakrudin Professor and Dean, DSLD CHEFT, Devihosur, Haveri.	Induced mutation breeding	<ul style="list-style-type: none">• It gives 46.24 per cent higher yield over check;• It has a higher germination percentage of seeds• Pods have pubescence• Suitable for snacks after boiling• Seeds are bold and green.	Zone-3, Zone-5, Zone-6, Zone- 8, Zone-7 of Karnataka	It gives a higher yield, seeds are bold and green, and palatable.	Accepted for release

4. Tomato: Krishna Prabha Shalmala

Name of the Scientist	Breeding Method	Salient Features	Proposed Zone	Remarks	Accepted/ Rejected
Dr. B. Fakrudin Professor and Dean, DSLD CHEFT, Devihosur, Haveri	Marker Assisted backcross breeding	<ul style="list-style-type: none"> It is resistant to tomato leaf curl disease virus (ToLCV-Bengaluru strain) Gives over 15.40 per cent higher yield over check. Fruits-round, red-coloured and round shaped. Flat type-semi-determinant; leaves-light green; Intermediate internodes; green stem. 	Zone-3, Zone-5, Zone-6, Zone- 8, Zone-7 of Karnataka	Semi-determinant, light green leaves, intermediate internodes, green stem, fruit-round, fruits-red round shaped.	Accepted for release

5. Tomato: Krishna Prabha Tunga

Name of the Scientist	Breeding Method	Salient Features	Proposed Zone	Remarks	Accepted/ Rejected
Dr. B. Fakrudin Professor and Dean, UHSB, DSLD CHEFT, Devihosur, Haveri	Marker Assisted backcross breeding	<ul style="list-style-type: none"> It is resistant to tomato leaf curl disease virus (ToLCV-Bengaluru strain) Gives over 23.25 per cent higher yield over check. Determinant plant growth habit; leaves are green; short internodes. light red fruits with green shoulders. Round-shaped fruits. 	Zone-3, Zone-5, Zone-6, Zone- 8, Zone-7 of Karnataka	Determinant plant, green leaves, short internodes, light red fruits with green shoulders, round-shaped fruits, ToLCV resistant.	Accepted for release

6. Tomato: Krishna Prabha Baari

Name of the Scientist	Breeding Method	Salient Features	Proposed Zone	Remarks	Accepted/ Rejected
Dr. B. Fakrudin Professor and Dean, UHSB, DSLD CHEFT, Devihosur, Haveri	Marker Assisted backcross breeding	<ul style="list-style-type: none"> It is resistant to tomato leaf curl disease virus (ToLCV-Bengaluru strain) Gives over 32.34 per cent higher yield over check. Fruits are highly acidic and suitable for curry. Determinant plant type Dark green leaves, Stem-dark green, Light red fruit with deep green shoulders; Flat-round fruits. 	Zone-3, Zone-5, Zone-6, Zone- 8, Zone-7 of Karnataka	Determinant plant, dark green leaves, stem-dark green, light red fruit with deep green shoulders, flat-round fruits, ToLCV resistant.	Accepted for release

7. Carrot (Tropical type): Krishna Prabha Vriddhi

Name of the Scientist	Breeding method	Salient Features	Proposed Zone	Remarks	Accepted/ Rejected
Dr. Sarvamangala S. Cholin Assistant Professor (GPB), Dept. of BCI, COH Bagalkot	Marker-Assisted Recurrent Selection	<ul style="list-style-type: none"> Higher carotenoid, higher reducing sugar and high yielding than check variety (23.0 % higher than check) Lower bolting tendency during vegetative phase Semi erect leaf growth habit Root shape: Obtriangular Root colour: Orange to red 	Zone, 1, 2, 3, and 8	Higher carotenoid, higher sugar, good texture and high yielding tropical carrot variety	Accepted for release

8. Chilli: Krishna Prabha Rudra

Name of the Scientist	Breeding method	Salient Features	Proposed Zone	Remarks	Accepted/ Rejected
Dr. Prabhudeva S. Ajjappalavara Associate Professor & Head, HREC, Devihosur	Pure line Selection	<ul style="list-style-type: none"> Nodal Anthocyanin (Whole plant)- purple color Plant growth habit – Erect Oleoresin recovery per cent: high (16.0 % to 17.5%) Dry Chilli color count (ASTA): high color (180 to 220 ASTA) Dry Chilli pungency (SHU): low pungent (9833) Red ripened fruits are dark red in color and dried fruits are having prominent wrinkles on the fruit surface High dry fruit yield (51.85% higher than check) 	Zone-2, Zone-3, Zone-4, Zone-7 and Zone-8 of Karnataka	High yielding dry chilli variety suitable for <i>Kharif</i> season Under rain fed and irrigated regime	Accepted for release

9. Chilli: Krishna Prabha Shuka

Name of the Scientist	Breeding method	Salient Features	Proposed Zone	Remarks	Accepted/ Rejected
Dr. Prabhudeva S. Ajjappalavara Associate Professor & Head, HREC, Devihosur	Pure line Selection	<ul style="list-style-type: none"> Plant growth habit – Erect Ascorbic acid Content (mg/100 g) -204.96 Capsaicin content SHU-37682 Fresh fruits are long with semi wrinkles and parrot green in color High fruit yield(23.62% higher than check) 	All zones of Karnataka state	High yielding green chilli variety suitable for <i>Kharif</i> season Under rain fed and irrigated regime	Accepted for release

10. Tomato: Krishna Prabha Shaant

Name of the Scientist	Breeding method	Salient Features	Proposed Zone	Remarks	Accepted/ Rejected
Dr. Prabhudeva S. Ajjappalavara Associate Professor & Head, HREC, Devihosur	Pedigree Breeding	<ul style="list-style-type: none"> Plant habit- Semi determinate Fruit length : 3.25 to 3.5 cm Fruit girth : 4.0 to 4.50 cm Number of locules per fruit: 3 Moderately resistance to early blight High yield (28.82% increase over check) 	All zones of Karnataka state	High yielding Tomato variety suitable for <i>Kharif</i> & Rabi season Under rain fed and irrigated regime	Accepted for release

11. China Aster :Krishna Prabha Chinmaya

Name of the Scientist	Breeding method	Salient Features	Proposed Zone	Remarks	Accepted/ Rejected
Dr. Mukund Shiragur Associate Professor (FLA) UHS, Bagalkot	Selection (from heterogeneous population)	<ul style="list-style-type: none"> Flowers are pink in colour with diameter of 5.5-6.0 cm Produces 50 flowers/plant Resistant to <i>Alternaria</i> leaf spot Yield: 14.50t/ha (30% more than cv. Arka Kamini) 	All zones of Karnataka state	High yielding and resistant to <i>Alternaria</i> leaf spot	Accepted for release

12. Tamarind: Krishna Prabha Tamarind

Name of the Scientist	Breeding method	Salient Features	Proposed Zone	Remarks	Accepted/ Rejected
Dr. Siddappa. R Assistant Professor (PSMA C) COH, Mysuru	Selection	<ul style="list-style-type: none"> High pod yield per plant (110kg/tree), High pulp yield (50.95kg/tree), pulp weight per pod (10.15g). Semi curved sickle shaped pod, medium sour. 	Central dry zone of Karnataka (Chitradurga, Davanagere, Tumkur, Hassan)	High pulp yield	Accepted for release

13. Coriander: Krishna Prabha Varadevi-2

Name of the Scientist	Breeding method	Salient Features	Proposed Zone	Remarks	Accepted/ Rejected
Dr. Krishna Kurubetta Assistant Professor (Agronomy) COH Munirabad	Selection	<ul style="list-style-type: none"> Early plant vigor is good Narrow and serrated leaf margin and leaves are dark green Seeds shape is slightly lengthened, bold, brownish yellow seeds with good aroma Essential oil content 0.28% Average seed yields of 9.0 q/ha 	Zone -3 and Zone -8	Higher Essential oil, Seed yield	Accepted for release

14. Fenugreek: Krishna Prabha Devi Menthe-1

Name of the Scientist	Breeding method	Salient Features	Proposed Zone	Remarks	Accepted/ Rejected
Dr. Krishna Kurubetta Assistant Profesossor (Agronomy) COH Munirabad	Selection	<ul style="list-style-type: none"> Early plant vigor is good Plants having more no. of branches, more no. of pods, pod length is more and no. of seeds per pod are also high Seeds are bold, coarse textured Average seed yield of 10q/ha Seed contains higher protein-29.56 % 	Zone -3 and Zone -8	Higher seed yield	Accepted for release

II. UAS, Bengaluru, GKVK, Campus, Karnataka

15. Jack fruit: Lalbagh Madhura

Name of the Scientist	Breeding Method	Salient Features	Proposed Zone	Remarks	Accepted/ Rejected
Dr. Shyamamma, S. Professor & Head Dept. of Plant Biotechnology	Clonal Selection	<ul style="list-style-type: none"> • Early bearing -3.5 years and high yielding with big sized fruit (15-18kg /fruit) • Bigger flakes (75-100g), 20flakes wt 1,376 g to 1,430 g, thicker flakes (1.5-1.7) • TSS- 28.00 to 34.00 °Brix • Flake to fruit ratio- >0.55 • Tolerant – fruit and shoot borer 	Zone 5	Early bearing in the season (January) with average yield of 150-160 fruits/tree/year (10 years old and above), which will be a useful trait to establish orchards for off-season/ early crop in zone 5 regions	Accepted for Release

16. Jack fruit: Byrachandra

Name of the Scientist	Breeding Method	Salient Features	Proposed Zone	Remarks	Accepted/ Rejected
Dr. Shyamamma, S. Professor & Head Dept. of Plant Biotechnology	Clonal Selection	<ul style="list-style-type: none"> • Early bearing -3.5 years and high yielding with big sized fruit (10-15kg /fruit) • Medium sized flakes (25-35g), 20 flakes wt is 420g to 550g. TSS 30 to 33°Brix. • Flake to fruit ratio is high >0.55 • Dual purpose variety- suitable for table and vegetable purpose 	Zone 5	Twice bearing type with an average yield of 120 to 150 fruits /tree/year (60-75 fruits /season/tree) (after 10 years of planting), which is suitable for zone 5 of Karnataka region	Accepted for Release

17. Jack fruit : GKVK Red

Name of the Scientist	Breeding Method	Salient Features	Proposed Zone	Remarks	Accepted/ Rejected
Dr. Shyamamma, S. Professor & Head Dept. of Plant Biotechnology	Clonal Selection	<ul style="list-style-type: none"> • Early bearing -3.5 years and high yielding with medium sized (5-8 kg /fruit)Coppery Red with medium size flakes (25 to 35 g), 20 flakes wt -450g to 530 g. • TSS - 25 to 30^o Brix • Flake to fruit ratio->0.62 	Zone 5	The average yield of 60 to 80 fruits /tree /year upto 10 years, above 10 years fruits per plants will around 150 – 200 tree/year Suitable for zone 5 of Karnataka region	Accepted for Release

18. Stevia: GKVK Stevia-1

Name of the Scientist	Breeding Method	Salient Features	Proposed Zone	Remarks	Accepted/ Rejected
Dr. Srinivasappa, K. N. Professor Dept. of Horticulture	Polyploidy breeding and Clonal selection	<ul style="list-style-type: none"> • Profusely branched • Big and thick leaves, less flowering • High fresh (170 q/ha) and dry (51.94 q/ha)herbage yield • High Stevioside (13.50%) and Rebaudioside (5.94%) content • Less incidence of pest & diseases 	Zone 5	Perennial with very good regeneration capacity	Accepted for release

III. UAS, Raichur, Karnataka

19. Green Chilli Hybrid: UARChH42 (Ruby Deep)

Name of the Scientist	Breeding Method	Salient Features	Proposed Zone	Remarks	Accepted /Rejected
Dr. B. V. Tembhurne Professor & Head Dept. of Genetics and Plant Breeding	Hybridization between male sterile line JNA1 and restorer line BVC42	<ul style="list-style-type: none"> • CGMS based hybrid, Suitable for green chilli, Heavy bearing Recorded 40% higher green chilli fruit yield over best check Sitara and found highly resistant to powdery mildew 	Zone 2 & Zone 3 of Karnataka	It was approved during 39 th State seed sub-committee held on 17.8.2021 to 19.8.2021 and 28 th CVRC dated 28.10.2020	Not Recommended

- Suggested to delete the data of colour value from table as it is recommended for green chilli and include the photo of plant having green chilli.

20. Red Chilli Hybrid: UARChH43 (Vitthal)

Name of the Scientist	Breeding Method	Salient Features	Proposed Zone	Remarks	Accepted /Rejected
Dr. B. V. Tembhurne Professor & Head Dept. of Genetics and Plant Breeding, UAS Raichur	Hybridization between male sterile line ACA1 and restorer line BVC42	<ul style="list-style-type: none"> CGMS based hybrid, Suitable for Redchilli, Heavy bearing Recorded 67% higher fruit yield over best check Indame 5 and found resistant to powdery mildew 	2 & 3 of Karnataka	High yielding CGMS based Red Chilli hybrid	Accepted for release

IV. KSNUAHS, Shivamogga, Karnataka

21. Areca nut: (Maidan Local)

Name of the Scientist	Breeding Method	Salient Features	Proposed Zone	Remarks	Accepted /Rejected
Dr. D. Tippesha, Professor of Horticulture KSNUAHS, Shivamogga	Selection from farmers field	<ul style="list-style-type: none"> Early flowering and Maturity Planting to flowering days-1317 days Best quality of Red chali More nut weight compared to other varieties 	Zone 5, Zone 7 of Karnataka	If the suggested information is provided the variety may be accepted	Not Recommended

Suggestions:

1. Suggested to check the Arecoline content of the proposed variety which seems very high.
2. Suggested to check the statistical analysis of the data as Yields are on par with the released varieties
3. Name of the variety Maidan Local need to be modified.
4. IC number has not been obtained.
5. DNA finger printing result is not clear.
6. Challenge inoculation for bud rot has not been done and hence can't be claimed as resistant.

V. ICAR- IHR, Hessarghatta, Bengaluru, Karnataka SVRC approved varieties

22. Custard Apple Hybrid: Arka Sahan

Name of the Scientist	Breeding method	Salient features	Proposed zone	Remarks	Accepted/ Rejected
Dr. T. Sakthivel Principal Scientist Division of Fruit Crops	Inter-specific hybridization and selection	<ul style="list-style-type: none"> It is a progeny of Island Gem (<i>Annona atemoya</i> Hort.) X Mammoth (<i>A. squamosa</i> L.) Average Fruit weight: 410 g Less seeded (8 seeds / 100g pulp) High pulp recovery (74.0%) High TSS (30.0°B) More shelf life (7 days) Yield: 12 tonnes/ha 	2,3,4,5,6 and 7	Needs assisted pollination with common custard apple to get more yield, uniform size and shape of the fruits.	Accepted for release

23. Guava Hybrid: Arka Poorna

Name of the Scientist	Breeding method	Salient features	Proposed Zone	Remarks	Accepted/ Rejected
Dr. C. Vasugi, Principal Scientist, Division of Fruit Crops	Hybridization (between Kamsari X Purple Local) and Single plant selection in F₁ generation followed by vegetative propagation of the selected F ₁ progeny	<ul style="list-style-type: none"> Semi- vigorous growth habit with pre-cocious and prolific bearing nature Medium to big sized (200 to 220g), round fruits with smooth, shiny pericarp. Firm, white pulp with good flavour and keeping quality Good pulp recovery with medium soft seeds (4 to 6 kgf) Thick outer pulp (1.5 cm) in relation to core diameter, hence suitable for both table and processing (OD product and fruit bar). Good TSS (12 to 13 o B) and rich in ascorbic acid (190 to 200 mg/100 g FW) Yield : 40 to 42 kg/tree/year after 4 th year of planting 	5 and 6	Prolific bearing white pulp variety suitable for table purpose and processing	Accepted for release

24. Guava Hybrid : Arka Rashmi

Name of the Scientist	Breeding method	Salient features	Proposed Zone	Remarks	Accepted/ Rejected
Dr. C. Vasugi, Principal Scientist, Division of Fruit Crops,	Hybridization (between Kamsari X Purple Local) and Single plant selection in F₁ generation followed by vegetative propagation of the selected F ₁ progeny	<ul style="list-style-type: none"> Plants are semi vigorous and suitable for close planting Fruits are round, medium sized (180 to 200 g) with medium thick pericarp (> 1 cm) Pulp is dark red, with medium soft seeds (4-6 kgf) and medium in lycopene (4.93 mg/100 g pulp) and high in ascorbic acid (220 to 235 mg/100g) with good flavour. Dual purpose variety, suitable for both table and processing, Yield : 38 to 40 kg /tree/year after 4th year of planting 	1, 5 and 6	A dual purpose red pulp variety with rich ascorbic acid	Accepted for release

25. Mango Hybrid: Arka Suprabhath

Name of the Scientist	Breeding method	Salient features	Proposed zone	Remarks	Accepted/ Rejected
Dr. M. Sankaran Principal Scientist, Division of Fruit Crops	Hybridization followed by single plant selection	<ul style="list-style-type: none"> It is a hybrid between Amrapali X Arka Anmol. The trees are medium vigorous, regular, bunch bearing, high yielding (35-40 kg /plant after 8 years of planting or 4th bearing year) variety. Fruits weight ranged from 200-250g, fruit shape is like Alphonso and has pulp colour of Amrapali, deep orange firm pulp, pulp recovery (>70%), TSS(>22°B), acidity (0.12%), carotenoids (8.35mg/100g FW) and flavonoids (9.91 mg/100g FW) and it has got the shelf life of 8-10 days at room temperature. This hybrid is free from sponge tissue and internal breakdown after the hot water treatment before storage. 	All zones of Karnataka	Excellent pulp traits (Thick pulp and 22°B TSS) and free from sponge tissue	Accepted for release

26. Mango Hybrid: Arka Udaya

Name of the Scientist	Breeding method	Salient features	Proposed zone	Remarks	Accepted/ Rejected
Dr. M. Sankaran Principal Scientist, Division of Fruit Crops	Hybridization followed by single plant selection	<ul style="list-style-type: none"> It is a hybrid between Amrapali x Arka Anmol. The tree is semi-vigorous growth habit. The fruits are medium in size (200 to 250 g) with bunch bearing habit and good yield potential (35-40 kg /plant during the 4th bearing year). The fruits have the peel colour of Arka Anmol and with the pulp characteristics of Amrapali, firm with deep yellow orange in colour, sweet in taste with good TSS (24 °Brix) and high pulp recovery (77 %). The fruits have better keeping quality (12-15 days). 	All zones of Karnataka	Excellent pulp traits (Thick pulp and 24 ^o B TSS) and very high shelf life	Accepted for release

27. Pummelo Variety: Arka Anantha

Name of the Scientist	Breeding method	Salient features	Proposed zone	Remarks	Accepted/ Rejected
Dr. M. Sankaran Principal Scientist, Division of Fruit Crops	Clonal selection	<ul style="list-style-type: none"> Clonal selection of 25-5, the tree is medium height (2.0-3.0 m), drooping growth habit. Average 80-90 fruits /plant/season after 4 years of planting, fruit weight ranged from 0.9-1.2 kg, Oblique fruit shape and has pink pulp colour, TSS (11-12°B), acidity (1.0-1.2 %) and sweet in taste. 	All zones of Karnataka	Least bitter and high TSS (11-12 ^o B)	Accepted for release

28. Pummelo Variety: Arka Chandra

Name of the Scientist	Breeding method	Salient features	Proposed zone	Remarks	Accepted/ Rejected
Dr. M. Sankaran Principal Scientist, Division of Fruit Crops	Clonal Selection	<ul style="list-style-type: none"> Clonal selection of 18-5, the tree is medium size (2.0-3.0 m) and spreading. It is a medium vigorous, Average yield 35-40 fruits/plant/season after 4 years of planting), fruit weight ranged from 0.8-1.0kg, spheroid fruit shape and has white pulp, TSS (11-12°B), acidity (0.89%) and sweet in taste. 	All zones of Karnataka	Less bitter and high TSS (11-12°B)	Accepted for release

29. Ridge gourd Variety :Arka Prasan

Name of the Scientist	Breeding method	Salient features	Proposed Zone	Remarks	Accepted/ Rejected
Dr. B. Varalakshmi, Principal Scientist, Division of Vegetable Crops	Inbred Selection	<ul style="list-style-type: none"> Early flowering and female flower at 9thnode Takes 34-35 days for the first female flower appearance and 42-45 days for first picking of fruits Green, long, tender fruits Yields 26-30 t/ha in 120-135 days duration 	All zones of Karnataka	Early and high yielding variety	Accepted for release

30. French Bean Variety: Arka Arjun

Name of the Scientist	Breeding method	Salient features	Proposed Zone	Remarks	Accepted/ Rejected
Dr. Mahadevaiah C. Senior Scientist Division of Vegetable Crops	Pedigree Breeding Method	<ul style="list-style-type: none"> Plants are bushy and photo-insensitive. Pods are ready for harvest in 47 days after sowing. Pods are round on cross section, stringless, smooth, long (14.2 cm) and crisp with no parchment. Yield potential of 16.5 t/ha in 70 days Resistant to Mung Bean Yellow Mosaic Virus (MYMV) disease	All zones of Karnataka	High-yielding variety with smooth, round stingless pods and resistance to Mung bean yellow mosaic virus disease and high temperature tolerance upto 35 °C	Accepted for release

31. Velvet Bean (*Mucuna pruriens* var *utilis*) Variety : Arka Dhanvantari

Name of the Scientist	Breeding method	Salient features	Proposed zones	Remarks	Accepted/ Rejected
Dr. K. Hima Bindu Principal scientist, Division of Flower and Medicinal crops	Pureline selection	<ul style="list-style-type: none"> • Long duration line comes to maturity 180-190 days after sowing • Non-itchy trichomes on pods • High seed yield (2- 2.5 t/ha) (32% increase) • High L-Dopa content (4.5 to 5.5%) 	1, 4, 8 and 10	Long duration variety with nonirritant pods, high seed yield and high L-dopa content suitable for irrigated conditions	Accepted for release

32. Velvet Bean (*Mucuna pruriens* var *utilis*) Variety : Arka Daksha

Name of the Scientist	Breeding method	Salient features	Proposed zones	Remarks	Accepted/ Rejected
Dr. K. Hima Bindu Principal scientist, Division of Flower and Medicinal crops	Pureline selection	<ul style="list-style-type: none"> • Medium duration line comes to maturity 150-160 days after sowing • Non-itchy trichomes on pods • High seed yield (1.6- 2 t/ha) (35% increase) • High L-Dopa content (3.5 to 4.5 %) 	3, 5 and 6	Medium duration variety with nonirritant pods tolerant to moisture stress suitable for dry zones	Accepted for release

33. Ashwagandha Variety: Arka Ashwagandha

Name of the Scientist	Breeding method	Salient features	Proposed zone	Remarks	Accepted/ Rejected
Dr. M. R. Rohini Scientist, Division of Flower and Medicinal crops	Pure line selection	<ul style="list-style-type: none"> • Arka Ashwagandha is a high yielding variety from pure line selection with double the dry root yield (11.95 q/ha) and total withanolide content (0.580%) compared to check Jawahar Ashwagandh -20 (5.27q/ha & 0.320%). • The other significant features of the variety are good establishment, early vigour, field tolerance to bacterial wilt, late blight diseases and pests viz., Epilachna beetle, mites and aphids. • Variety matures in 180 days and is characterized by pencil thickness roots and desired root depth of around 30 cm 	3 & 5	High yielding variety with high withanolide content suitable for Zone 3 & 5 of Karnataka	Accepted for release

34. Mandukaparni/Ondelaga (*Centella asiatica*) Variety: Arka Prabhavi

Name of the Scientist	Breeding method	Salient features	Proposed zone	Remarks	Accepted/ Rejected
Dr. M. R. Rohini Scientist, Division of Flower and Medicinal crops	Clonal selection	<ul style="list-style-type: none"> • Arka Prabhavi is an erect plant type variety with medium sized leaves. • Arka prabhavi produces 13 tonnes of fresh herb and 2.3 tonnes of dry herb per hectare per year with higher asiaticoside content (3.85%) and higher tri- terpenoid content (7.27 %). • Good for herbal industries for extraction of triterpenoids. 	3 & 5	High yielding variety with high asiaticoside content (3.85%) and higher tri-terpenoid content (7.27 %) suitable for pharma industries suitable for Zone 3 & 5 of Karnataka	Accepted for release

35. Mandukaparni/Ondelaga (*Centella asiatica*) Variety : Arka Divya

Name of the Scientist	Breeding method	Salient features	Proposed zone	Remarks	Accepted/ Rejected
Dr. M. R. Rohini Scientist, Division of Flower and Medicinal crops	Clonal selection	<ul style="list-style-type: none"> It is an erect plant with very broad leaves and easy to harvest with every 30 days harvest. Have a higher dry biomass yield of 2.5 MT/ha /year, moderate asiaticoside content 0.54 to 1.69% and moderate Tri- terpenoid content 1.67 to 3.56%. The variety has higher nutritional values (minerals and vitamins) than check variety. It is good for both industry and as green vegetable purpose. 	3 & 5	High yielding variety with high biomass yield and nutritional quality suitable for pharma industries and as green leafy vegetable suitable for Zone 3 & 5 of Karnataka	Accepted for release

36. Okra Hybrid: Arka Nikita

Name of the Scientist	Breeding method	Salient features	Proposed zone	Remarks	Accepted/ Rejected
Dr. M. Pitchaimuthu Principal Scientist, Division of Vegetable Crops	Heterosis breeding	<ul style="list-style-type: none"> It is developed through genetic male sterile line , High yielding 22.46 t/ha. Dark green, medium, smooth and tender fruits. Early fruiting , takes 39 to 43 days . Suitable for kharif, rabi and summer season . Rich in iodine content (33.31µ g/kg). High mucilage content (1.08 % (FW) and high edible fiber content (8.85 % (DW) . It is rich in minerals like potassium (3.7 %), calcium 997 mg /100 g) and magnesium 	1,3,4,6,7	High yielding hybrid , suitable for round the year cultivation	Accepted for release

37. Indian Bean (Dolichos Bean) Variety : Arka Vistar

Name of the Scientist	Breeding Method	Salient Features	Proposed Zone	Remarks	Accepted/ Rejected
Dr. M. Thangam Principal Scientist, Division of Vegetable Crops	Pedigree Selection	<ul style="list-style-type: none"> • Photo in-sensitive (suitable for both Kharif and Rabi). • Yield: 35-37 t/ha. • Duration: 120-150 days. • Fruit characters: dark green, tender, thick and long with fleshy pulp. • Highly preferred by the consumers. • Recorded 35 to 40 % more yield than check variety. 	1, 3 and 8	Arka Vistar has dark green, tender, thick and long with fleshy fruit for fresh market of Karnataka	Accepted for release

38. Indian Bean (Dolichos bean) Variety: Arka Krishna

Name of the Scientist	Breeding Method	Salient Features	Proposed Zone	Remarks	Accepted/ Rejected
Dr. M. Thangam Principal Scientist, Division of Vegetable Crops,	Pedigree Selection	<ul style="list-style-type: none"> • Photo in-sensitive (suitable for both Kharif and Rabi). • Yield: 25-30 t/ha. • Duration: 120-150 days. • Fruit characters: dark green smooth pods with shininess suitable for fresh market. • Highly preferred in Karnataka State. • Recorded 17 to 25 % more yield than check variety. 	1, 3 and 8	Arka Krishna has fleshy, dark green smooth pods with shininess suitable for fresh market of Karnataka	Accepted for release

39. Gladiolus Hybrid: Arka Amar

Name of the scientist	Breeding method	Salient features	Proposed zone	Remarks	Accepted/ Rejected
Dr. T. Usha Bharathi Senior scientist, Division of Flower and Medicinal crops ICAR-IIHR, Bengaluru	Hybridization and selection	<ul style="list-style-type: none"> • The flowers are red colour (RHS colour chart 46D) having red (RHS colour chart 45B) margin and white (RHS colour chart 155B) line on tepals with yellow (RHS colour chart 2C) blotch. • It has long spike (101 cm) with good rachis length (50 cm) and bears 17 florets per spike. • It yields 2.0 flower spikes and 2 corms /corm and 23 cormels. 	4 & 7	High yielding variety with attractive and novel red colour flower, recommended for cut flower, suitable for Zone 4 & 7 of Karnataka	Accepted for release

40. Gladiolus Hybrid: Arka Kesar

Name of the scientist	Breeding method	Salient features	Proposed zone	Remarks	Accepted/ Rejected
Dr. T. Usha Bharathi Senior scientist, Division of Flower and Medicinal crops ICAR-IIHR, Bengaluru	Hybridization and selection	<ul style="list-style-type: none"> The flowers are attractive with saffron coloured florets, yellow orange (RHS colour chart 19C), having orange (25D) margin, Blotch orange red (32C) with yellow green (154B) line. It flowers in 61 days, produces long spike (110 cm), number of florets per spike (17) and number of spikes per plant (1.80) and 2 corms /corm. It is suitable for cut flower, flower arrangement bouquet. 	4 & 7	High yielding variety with saffron orange colour flower, recommended for cut flower, suitable for Zone 4 & 7 of Karnataka	Accepted for release

VI. ICAR- IISR RS, Appangala, Madikeri, Karnataka

41. Small Cardamom: IISR Kaveri

Name of the scientist	Breeding method	Salient features	Proposed zone	Remarks	Accepted/ Rejected
Dr. S. J. Ankegowda Principal Scientist and Head ICAR-IISR, Regional Station, Appangala, Madikeri	Clonal selection	<ul style="list-style-type: none"> Compact flowering cardamom genotype with 70 % of the capsules are > 8 mm Relatively tolerant to moisture stress Average yield of 482 kg dry capsules/ha under irrigated conditions and 308 kg dry capsules/ha under moisture stress conditions High essential oil 9.08 % (irrigated conditions), 9.51 % (moisture stress conditions) content 	6, 7, 10	Suitable for cardamom growing regions of Karnataka	Accepted for release

VII. ICAR, DCR, Puttur, D. K., Karnataka

42. Cashew Variety: Nethra Jumbo-1

Name of the Scientist	Breeding Method	Salient features	Proposed	Remarks	Accepted/ Rejected
Dr. J. Dinakara Adiga Director, ICAR-DCR, Puttur	Hybridization and Selection	<ul style="list-style-type: none"> • Jumbo nut size • Cluster bearing • Uniform nut size • W-130 grade kernels 	Coastal Zone of Karnataka	50 % reduction in man power for harvest Easy peeling of testa High yielder (10kg per plant at 10 th harvest)	Accepted for release

43. Cashew Variety: Nethra Ganga

Name of the Scientist	Breeding Method	Salient features	Proposed	Remarks	Accepted/ Rejected
Dr. M. G. Nayak Retd., Acting Director ICAR-Director	Hybridization and Selection	<ul style="list-style-type: none"> • Bold size nut with cluster bearing habit and High yield (4.09kg per plant at 4th year) 	Coastal Zone of Karnataka	Highly pruning responsive and having high precocity and high yielder	Accepted for release

44. Cashew Variety: Nethra Ubhaya

Name of the Scientist	Breeding Method	Salient features	Proposed	Remarks	Accepted/ Rejected
Dr. Eradasappa E. Senior Scientist ICAR-DCR, Puttur	Selection	<ul style="list-style-type: none"> • Dual type with desirable nuts and apples • High shelling percentage 	Coastal Zone of Karnataka	Dual type with desirable nuts and apples High shelling percentage (34.66%) W210 grade kernels	Accepted for release

Discussions:

- The Secretary directed the respective Directors of Research of all the Farm Universities to compulsorily undertake the large scale seed production and distribution of all the varieties accepted in the SVRC.
- It was informed to UHS, Bagalkot & other universities to further strengthen the seed unit to undertake large scale seed production of open pollinated varieties and F1 hybrids of Vegetable crops. Further, Principal Secretary & Director of Horticulture informed to Director of Research, UHS, Bagalkot to seek for the additional post to strengthen the Seed Unit.
- The Secretary suggested to the university to seek for essential funds to undertake need based breeding work in horticulture crops.
- The Director of Research, UHS, Bagalkot explained the pricing of seeds sold in the University, which is actual cost of production with minimum profit, which is far lower compared to Pvt. Seed Companies.
- The Secretary suggested fixing the prices of seeds reasonably in order to sustain seed production activities.
- Dr. Fakrudin B. requested the authorities, financial support for advanced breeding research setup, such as Genome editing and speed breeding at UHS Bagalkot for a “Future ready Agri / Horti of Karnataka.”

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Chairman

DR. SHAMLA IQBAL IAS,
Secretary to Government
Horticulture and Sericulture Department

Secretary to Government (Horticulture)
Government of Karnataka
Dept. of Horticulture, M.S. Building
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Co-convenor

Technical Representatives,
Director of Research
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Encl: List of Members Present

Member Present in the SVRC Meeting held on 13/03/2024

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1.	Dr. Shamla Iqbal, IAS Secretary, Horticulture & Sericulture Department, M.S building , Bengaluru		
2.	Shri. Ramesh D. S., IAS, Director of Horticulture, Lalbagh, Bengaluru		
3.	Deputy commissioner (seeds-QC) Ministry of Agriculture & Farmers welfare, Department of Agriculture & Farmers welfare, New Delhi		
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9.	Director, Karnataka state seeds and certification agency hebbal , Bengaluru		
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16.	Assistant Horticulture Officer, Seed Testing Laboratory, Lalbagh, Bengaluru		
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