आज़ादी का अमृत महोत्सव

भाकृअनुप-केन्द्रीय रोपण फसल अनुसंधान संस्थान
कासरगोड़ - 671124, केरल, भारत
ICAR-Central Plantation Crops Research Institute
Kasaragod 671124, Kerala, India
(An ISO 9001:2015 Certified Institution)

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F.No.17(1)/RTI(27)/2021-Estt. Dated: 08.03.2022

Mr. Shabeen M
29/576 Devikripa
Mangottu Vayal Road
Kottooli,Calicut - 673016

Sub : Right to Information Act, 2005 - reg.
Ref : Your RTI application dated 03.02.2022

Sir,

Please find enclosed herewith the information sought by you as per the RTI Act 2005. In case you desire to file an appeal on this issue the same may be addressed to the Director, ICAR-CPCRI, P.O. Kudlu, Kasaragod – 671 124, Kerala.

Receipt of the letter may please be acknowledged.

Yours faithfully,

(HAREESH NAIR)
Chief Administrative Officer &
Public Information Officer

प्रेषित / Issued
Date. 09/03/2022

ARECANUT

Taxonomic information

Kingdom: Plantae

Subkingdom: Tracheobionta

Super division: Spermatophyta

Division: Magnoliophyta

Class: Liliopsida

Sub class: Arecidae

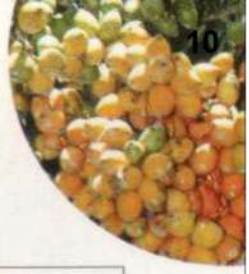
Order: Arecales

Family: Arecaceae

Genus: *Areca* L.

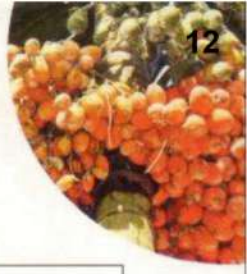
Species: *Areca catechu* L.

Common name: Betel palm, Arecanut palm



MANGALA

National Identity	IC 557417
Institution responsible for developing variety	ICAR-Central Plantation Crops Research Institute, Regional Station, Vittal, D.K. Karnataka
Collaborating centre(s), if any	-
Breeding method & Parentage	Introduction, selection and evaluation from the accession VTL-3, an exotic accession introduced as germplasm from China in the year 1957.
Recommended	
Purpose	High dry kernel yield, Semi tall habit and Earliness in flowering
State/ecological region	Areca growing areas of coastal Karnataka and Kerala.
Yield performance in evaluation trial	
Mean	2.90 kg dry kernel/palm/year 3700 – 3900 kg dry kernel/ha/year
Potential	4.50 kg dry kernel/palm/year 6000-6300 kg dry kernel/ha/year
Description of variety	
Morphological features	Habit: Semi tall in nature, partially drooping crown, shorter internodal length, medium thick stem, more number of bunches and high yielding. Fruits: Compact arrangement of oval to round nuts in the rachillae, more number of bunches and early stabilization in the yield Seedlings: Vigourous, dark green petiole; 12 month seedling - 6 leaves, collar girth of 6.68 cm and height 82 cm
Flowering attributes	Flower initiation: 36-40 months after planting.
Quality attributes	Meets the standard quality of chali/dried kernel and raw nut for chewing.
Reaction to major diseases/ pests	No major disease/pest attacks observed under field conditions. Prophylactic measures are to be adopted for fruit rot disease, in endemic tracts.
Reaction to environment stresses	Recommended for cultivation under irrigated condition.
Specific recommendations, for seed production	*Inter se* mating and selection of seedlings is suggested to produce genetically superior pure planting materials.
Other pertinent information/references	
Recommended for release: Institute Research Council Meeting - 1972. CPCRI. 1972. Annual Report. 1971-72. Central Plantation Crops Research Institute, Kasaragod, Kerala, India, 166 p.	



SUMANGALA

National Identity	IC 557418
Institution responsible for developing variety	ICAR-Central Plantation Crops Research Institute, Regional Station, Vittal, D.K. Karnataka
Collaborating centre(s), if any	ICAR-CPCRI Research Centre, Kidu.
Breeding method & Parentage	Introduction, selection and evaluation from the accession VTL 11 introduced as germplasm from Indonesia in the year 1957.
Recommended	
Purpose	High dry kernel yield and high recovery of chali.
State/ecological region	Areca growing areas of Karnataka and Kerala.
Yield performance in evaluation trial	
Mean	3.28 kg dry kernel/palm/year 3900 - 4350 kg dry kernel/ha/year
Potential	5.60 kg dry kernel/palm/year 7400-7700 kg dry kernel/ha/year
Description of variety	
Morphological features	Habit: Tall palms, long internodal length, medium thick stem, more number of bunches and high yielding. Fruits: Compact arrangement of oval nuts in the rachillae, and yellow to orange coloured nuts, more number of bunches and early to medium stabilization in the yield Seedlings: Vigourous, green petiole; 12 month seedling - 6 leaves, collar girth of 5.76 cm and height 118 cm
Flowering attributes	Flower initiation: 42-46 months after planting, under irrigated conditions
Quality attributes	Meets the standard quality of chali/dried kernel and raw nut for chewing.
Reaction to major diseases/ pests	No major disease/pest attacks observed under field conditions. Prophylactic measures are to be adopted for fruit rot disease, in endemic tracts.
Reaction to environment stresses	Relatively tolerant to water limited conditions.
Specific recommendations, for seed production	*Inter se* mating and selection of seedlings suggested for quality planting material production.
Other pertinent information/references	
Recommended for Release: Institute Research Council Meeting - 1985. CPCRI. 1985. Annual Report 1984-85. Central Plantation Crops Research Institute, Kasaragod, Kerala, India, 213 p.	

SREEMANGALA

National Identity	IC 557420
Institution responsible for developing variety	ICAR-Central Plantation Crops Research Institute, Regional Station, Vittal, D.K. Karnataka
Collaborating centre(s), if any	ICAR-CPCRI Research Centre, Kidu
Breeding method & Parentage	Introduction, selection and evaluation from the accession VTL-17, an arecanut germplasm introduced from Singapore in the year 1957.
Recommended	
Purpose	High dry kernel yield and bold nuts
State/ecological region	Areca growing areas of Karnataka and Kerala.
Yield performance in evaluation trial	
Mean	3.18 kg dry kernel/palm/year 4240-4500 kg dry kernel/ha/year
Potential	5.40 kg dry kernel/palm/year 7100 - 7300 kg dry kernel/ha/year
Description of variety	
Morphological features	Habit: Tall palms, partially drooping crown, long internodal length, sturdy stem, more number of bunches and high yielding. Fruits: Round and bold nuts in the rachillae, more number of bunches and medium stabilization in the yield Seedlings: Vigourous, green petiole; 12 month seedling - 6 leaves, collar girth of 5.76 cm and height 115 cm
Flowering attributes	Flower initiation: 44 to 48 months after planting.
Quality attributes	Meets the standard quality of chali/dried kernel and raw nut for chewing.
Reaction to major diseases/ pests	No major disease/pest attacks observed under field conditions. Prophylactic measures are to be adopted for fruit rot disease, in endemic tracts.
Reaction to environment stresses	Relatively tolerant to water limited conditions.
Specific recommendations, for seed production	*Inter se* mating and selection of seedlings suggested for production of superior planting materials.
Other pertinent information/references	
Recommended for release: Institute Research Council Meeting - 1985. CPCRI. 1985. Annual Report 1984-85. Central Plantation Crops Research Institute, Kasaragod, Kerala, India, 213 p.	

MOHITNAGAR

National Identity	IC 557422
Institution responsible for developing variety	ICAR-Central Plantation Crops Research Institute, Regional Station, Vittal, D.K. Karnataka
Collaborating centre(s), if any	ICAR-CPCRI Research Centre, Kidu ICAR-CPCRI Research Centre, Mohitnagar
Breeding method & Parentage	Selection and evaluation from indigenous accession VTL-60
Recommended	
Purpose	High dry kernel yield
State/ecological region	Areca growing areas of Karnataka, Kerala and North Bengal (West Bengal).
Yield performance in evaluation trial	
Mean	3.67 kg dry kernel/palm/year 5030 kg dry kernel/ha/year
Potential	5.50 kg dry kernel/palm/year 7540 kg dry kernel/ha/year
Description of variety	
Morphological features	Habit: Tall in nature, partially drooping crown, long internodal length, medium thick stem, more number of bunches, high yielding and homogenous population. Fruits: Loosely arranged oval to round nuts in the rachillae, more number of bunches and early stabilization in the yield Seedlings: Vigourous, light green petiole; 12 month seedling - 6 leaves, collar girth of 4.56 cm and height 122 cm
Flowering attributes	Flower initiation: 48 months after planting.
Quality attributes	Meets the standard quality of chali/dried kernel and raw nut for chewing.
Reaction to major diseases/ pests	No major disease/pest attacks observed under field conditions. Prophylactic measures are to be adopted for fruit rot disease, in endemic tracts.
Reaction to environment stresses	Relatively tolerant to water limited conditions.
Specific recommendations, for seed production	*Inter se* mating and selection of seedlings suggested to produce genetically superior and uniform planting material.
Other pertinent information/references	
Recommended for release: X AICRPP Group Meeting - 1991 Recommended for release as National variety CPCRI. 1991. Annual Report 1990-91. Central Plantation Crops Research Institute, Kasaragod, Kerala, India, 142 p.	

SWARNAMANGALA

National Identity	IC 557419
Institution responsible for developing variety	ICAR-Central Plantation Crops Research Institute, Regional Station, Vittal, D.K. Karnataka
Collaborating centre(s), if any	ICAR-CPCRI Research Centre, Kidu ICAR-CPCRI Research Centre, Mohitnagar
Breeding method & Parentage	Introduction, evaluation and selection from the accession VTL 12 introduced from Vietnam in the year 1961.
Recommended	
Purpose	Dry kernel, high recovery of kernel.
State/ecological region	Areca growing areas of Karnataka and Kerala.
Yield performance in evaluation trial	
Mean	3.88 kg dry kernel/palm/year 5320 kg dry kernel/ha/year
Potential	5.50 kg dry kernel/palm/year 7700 kg dry kernel/ha/year
Description of variety	
Morphological features	Habit: Tall in nature, with medium thick stem, shorter internodes, partially drooping crown, homogeneous population, consistent in yield, bunches are well placed on the stem. Fruits: Orange to deep yellow colour nuts, bold with oblong to round shaped nuts, high recovery (26.52%) of chali from fresh nuts. Seedlings: Vigourous, green petiole; 12 month seedling - 6 leaves, collar girth of 5.66 cm and height 115 cm.
Flowering attributes	Flower initiation: 46 months after planting.
Quality attributes	Meets the standard quality of chali/dried kernel and raw nut for chewing.
Reaction to major diseases/ pests	No major disease/pest attacks observed under field conditions. Prophylactic measures are to be adopted for fruit rot disease, in endemic tracts.
Reaction to environment stresses	Recommended for cultivation only under irrigated conditions.
Specific recommendations, for seed production	*Inter se* mating and selection of seedlings suggested to produce genetically superior planting material.
Other pertinent information/references	
Recommended for release: Institute Research Council Meeting - 2005 CPCRI. 2006. Annual Report 2005-06. Central Plantation Crops Research Institute, Kasaragod, Kerala, India, 128 p.	

KAHIKUCHI

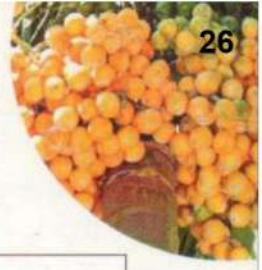
National Identity	VTL 64S
Institution responsible for developing variety	ICAR-Central Plantation Crops Research Institute, Regional Station, Vittal, D.K. Karnataka
Collaborating centre(s), if any	ICAR-CPCRI Research Centre, Kahikuchi and ICAR-CPCRI Research Centre, Mohitnagar
Breeding method & Parentage	Evaluation and selection from the indigenous accession VTL 64
Recommended	
Purpose	Dry kernel.
State/ecological region	Assam and Meghalaya
Yield performance in evaluation trial	
Mean	3.70 kg dry kernel/palm/year 5073 kg dry kernel/ha/year
Potential	5.30 kg dry kernel/palm/year 7000-7200 kg dry kernel/ha/ ear
Description of variety	
Morphological features	Habit: Tall palms, medium thick stem, longer internodes, partially drooping crown, uniform population and consistent in yield. Economic yield can be realized up to 45 years depending upon the management. Fruits: Orange colour, bold and round shape nuts Seedlings: Vigourous, light green petiole; 12 month seedling - 6 leaves, collar girth of 5.80 cm and height 112 cm.
Flowering attributes	Flower initiation: 50-52 months after planting.
Quality attributes	Meets the standard quality of chali/dried kernel and raw nut for chewing.
Reaction to major diseases/ pests	No major disease/pest attacks observed under field conditions. Prophylactic measures are to be adopted for fruit rot disease, in endemic tracts.
Reaction to environment stresses	Recommended for cultivation only under irrigated conditions.
Specific recommendations, for seed production	*Inter se* mating and selection of seedlings is suggested to produce genetically superior quality planting materials.
Other pertinent information/references	
Recommended for release: Institute Research Council Meeting - 2008 CPCRI. 2009. Annual Report 2008-09. Central Plantation Crops Research Institute, Kasaragod, Kerala, India, 145 p.	

MADHURAMANGALA

National Identity	IC 593737
Institution responsible for developing variety	ICAR-Central Plantation Crops Research Institute, Regional Station, Vittal, D.K. Karnataka
Collaborating centre(s), if any	BSKKV, Dapoli, Maharashtra and ICAR-CPCRI Research Centre, Mohitnagar, West Bengal
Breeding method & Parentage	Evaluation and selection from VTL 62, an arecanut population of Maharashtra
Recommended	
Purpose	Dry kernel, tender nut processing.
State/ecological region	Areca growing areas of Karnataka and Maharashtra
Yield performance in evaluation trial	
Mean	3.54 kg dry kernel/palm/year 4500-5000 kg dry kernel/ha/year 2.95 kg dry tender processed nuts/palm/year 3800-4500 kg dry tender processed nuts/ha/year
Potential	5.12 kg dry kernel/palm/year 6500-7000 kg dry kernel/ha/year 3.50 kg dry tender processed nuts/palm/year 4600-4800 kg dry tender processed nuts/ha/year
Description of variety	
Morphological features	Habit: Semi tall palms, medium thick stem, shorter internodes, partially drooping crown, homogeneous population, regular bearer, consistent in yield. Economic yield can be realized up to 35 years, depending upon the management. Fruits: Orange to yellow colour, oval and round shape, medium size nuts, high chali recovery (26 %) from fresh nuts. Seedlings: Vigourous, light green petiole; 12 month seedling - 6 leaves, collar girth of 4.95 cm and height 86 cm.
Flowering attributes	Flower initiation: 42 months after planting.
Quality attributes	Less arecoline and more polysaccharide content
Reaction to major diseases/ pests	No major disease/pest attacks observed under field conditions. Prophylactic measures are to be adopted for fruit rot disease, in endemic tracts.
Reaction to environment stresses	Recommended for cultivation only under irrigated conditions.
Specific recommendations, for seed production	*Inter se* mating and selection of seedlings is suggested to produce genetically superior and uniform planting material.
Other pertinent information/references	
Recommended for release: Institute Research Council Meeting - 2010 and XX AICRPP Group Meeting - 2011. Notification: Ministry of Agriculture Notification. S.O. 1714(E). The Gazette of India: Extraordinary Part II-Section 3-Sub section (ii) No. 999 Dated 18 July 2014. CPCRI. 2012. Annual Report 2011-12. Central Plantation Crops Research Institute, Kasaragod, Kerala, India, 128 p.	

NALBARI

National Identity	IC 593736
Institution responsible for developing variety	ICAR-Central Plantation Crops Research Institute, Regional Station, Vittal, D.K. Karnataka
Collaborating centre(s), if any	ICAR-CPCRI Research Centre, Mohitnagar, West Bengal
Breeding method & Parentage	Evaluation and selection from indigenous accession VTL 75
Recommended	
Purpose	Dry kernel.
State/ecological region	Areca growing areas of Karnataka
Yield performance in evaluation trial	
Mean	4.15 kg dry kernel/palm/year 5600 kg dry kernel/ha/year
Potential	6.20 kg dry kernel//palm/year 7500-7800 kg dry kernel/ha/year
Description of variety	
Morphological features	Habit: Tall palms, medium thick stem, longer internodes, partially drooping crown, homogeneous population, consistent in yield. Economic yield can be realized up to 40 years depending upon the management. Fruits: Yellow colour, round shape nuts, high recovery (25.18%) of chali from fresh nuts. Seedlings: Vigourous, dark green petiole; 12 month seedling - 6 leaves, collar girth of 6.20 cm and height 104 cm.
Flowering attributes	Flower initiation: 48 months after planting.
Quality attributes	Meets the standard quality of dried kernel and raw nut for chewing.
Reaction to major diseases/ pests	No major disease/pest attacks observed under field conditions. Prophylactic measures are to be adopted for fruit rot disease, in endemic tracts.
Reaction to environment stresses	Recommended for cultivation under irrigated conditions.
Specific recommendations , for seed production	*Inter se* mating and selection of seedlings suggested to produce genetically superior pure planting materials.
Other pertinent information/references	
Recommended for release: Institute Research Committee - 2010 and XX AICRPP Group Meeting - 2011. Notified: Ministry of Agriculture Notification. S.O. 1714(E). The Gazette of India: Extraordinary Part II-Section 3-Sub section (ii) No. 999 Dated 18 July 2014. CPCRI. 2012. Annual Report 2011-12. Central Plantation Crops Research Institute, Kasaragod, Kerala, India, 128 p.	



SHATA MANGALA

National Identity	IC 557397
Institution responsible for developing variety	ICAR-Central Plantation Crops Research Institute, Regional Station, Vittal, D.K. Karnataka
Collaborating centre(s), if any	ICAR-CPCRI Research Centre, Mohitnagar, West Bengal
Breeding method & Parentage	Evaluation and selection from indigenous accession VTL 146
Recommended	
Purpose	Dry kernel, tender nut processing.
State/ecological region	Areca growing areas of Karnataka and Gujarat
Yield performance in evaluation trial	
Mean	3.96 kg dry kernel/palm/year 5000 kg dry kernel/ha/year 3.26 kg dry tender processed kernel/palm/year 4500 kg dry tender processed kernel/ha/year
Potential	4.45 kg dry kernel/palm/year 5600 kg dry kernel/ha/year 3.6 kg dry tender processed kernel/palm/year 4800 kg dry tender processed kernel/ha/year
Description of variety	
Morphological features	Habit: Semi-tall palms, medium thick stem, shorter internodes, partially drooping crown, homogeneous population, consistent in yield, synchronized maturity of nuts. Economic yield can be realized up to 45 years depending upon the management. Fruits: Orange colour, round shape, medium size nuts, high recovery (26.8%) of chali from fresh nuts. Seedlings: Vigourous, dark green petiole; 12 month seedling - 6 leaves, collar girth of 5.20 cm and height 80 cm
Flowering attributes	Flower initiation: 40 months after planting.
Quality attributes	Meets the standard quality of dried kernel and and also for tendernut processing.
Reaction to major diseases/ pests	No major disease/pest attacks observed under field conditions. Minor pests like spindle bug and mite attacks observed occasionally which could be controlled effectively. Prophylactic measures are to be adopted for fruit rot disease, in endemic tracts.
Reaction to environmental stresses	Recommended for cultivation under rainfed and irrigated conditions.
Specific recommendations, for seed production	*Inter se* mating and selection of seedlings suggested to produce genetically superior pure planting materials.
Other pertinent information/references	
Recommended for release: ICAR-CPCRI Centenary year, XXV AICRPP Group Meeting – 2016 ICAR-CPCRI. 2016. KALPA CPCRI Newsletter 35 (2) April- June 2016, Central Plantation Crops Research Institute, Kasaragod, Kerala, India, pp. 2.	

VTLAH1

National Identity	IC 557423
Institution responsible for developing variety	ICAR-Central Plantation Crops Research Institute, Regional Station, Vittal, D.K. Karnataka
Collaborating centre(s), if any	ICAR-CPCRI Research Centre (presently IIHR-CHES), Hirehalli
Breeding method and Parentage	Hybridization involving Hirehalli Dwarf (VTL 56) as female parent and Sumangala (IC 557418) as male parent
Recommended	
Purpose	Dwarfness and medium dry kernel yield, compact canopy
State/ecological region	Areca growing areas of Karnataka
Yield performance in evaluation trial	
Mean	2.54 kg dry kernel/palm/year 3100-3400 kg dry kernel/ha/year.
Potential	3.20 kg dry kernel/palm/year 4200-4400 kg dry kernel/ha/year
Description of variety	
Morphological features	Habit: Dwarf stature and sturdy stem palms, super imposed nodes, partial drooping crown with well spread leaves and reduced canopy size. Economic yield can be realized up to 30 years depending upon the management. Fruits: Yellow colour, medium size, round to oval nuts, early stabilization in yield, higher percentage of recovery of chali from the fresh fruit, high recovery of chali from fresh nuts Seedlings: Vigourous, dark green petiole; 12 month seedling - 6 leaves, collar girth of 7.10 cm and height 56 cm.
Flowering attributes	Flower initiation: 45 months after planting.
Quality attributes	Meets the standard quality of chali/dried kernel and raw nut for chewing.
Reaction to major diseases/ pests	No major disease/pest attacks observed under field conditions. Prophylactic measures are to be adopted for fruit rot disease, in endemic tracts.
Reaction to environment stresses	Recommended for cultivation under irrigated conditions.
Specific recommendations , for seed production	Crossing is suggested between Hirehalli dwarf and Sumangala in order to produce hybrids. Selection of typical hybrid seedlings in the nursery is a must. For the purpose of large scale hybrid seed production, parental blocks of Hirehalli Dwarf and Sumangala are to be established.
Other pertinent information/references	
Recommended for release: Institute Research Council Meeting - 2004 and Zonal research and extension Group Meeting held at ZARS (UAS), Brahmavar - 2007. CPCRI. 2007. Annual Report 2006-07. Central Plantation Crops Research Institute, Kasaragod, Kerala, India, 124 p.	

VTLAH2

National Identity	IC 557424
Institution responsible for developing variety	ICAR-Central Plantation Crops Research Institute, Regional Station, Vittal, D.K. Karnataka
Collaborating centre(s), if any	ICAR-CPCRI Research Centre (presently IIHR-CHES), Hirehalli
Breeding method & Parentage	Hybridization involving Hirehalli Dwarf (VTL 56) as female parent and Mohitnagar (IC 557422), as male parent
Recommended	
Purpose	Dwarfness and medium dry kernel yield, compact canopy
State/ecological region	Areca growing areas of Karnataka
Yield performance in evaluation trial	
Mean	2.64 kg chali/palm/year 3500-3800 kg dry kernel/ha/year
Potential	3.40 kg chali/palm/year 4300-4600 kg dry kernel/ha/year
Description of variety	
Morphological features	Habit: Dwarf stature and medium thick stem, super imposed nodes, drooping crown with well spread leaves and reduced canopy size. Economic yield can be realized up to 30 years depending upon the management. Fruits: Deep yellow colour, medium size, oval nuts, early stabilization in yield, higher percentage of recovery of chali (dry kernel) from the fresh fruit Seedlings: Vigourous, dark green petiole; 12 month seedling - 6 leaves, collar girth of 6.70 cm and height 60 cm.
Flowering attributes	Flower initiation: 43 months after planting.
Quality attributes	Meets the standard quality of chali/dried kernel and raw nut for chewing.
Reaction to major diseases/ pests	No major disease/pest attacks observed under field conditions. Prophylactic measures are to be adopted for fruit rot disease, in endemic tracts.
Reaction to environment stresses	Recommended for cultivation only under irrigated conditions.
Specific recommendations, for seed production	Crossing is suggested between Hirehalli dwarf and Mohitnagar parental palms for production of hybrids. Selection of typical hybrid seedlings in the nursery is a must. For the purpose of large scale hybrid seed production, parental blocks of Hirehalli Dwarf and Mohitnagar have to be established.
Other pertinent information/references	
Recommended for release: Institute Research Council Meeting - 2004, and Zonal research and extension Group Meeting held at ZARS (UAS), Brahmavar - 2007. CPCRI. 2007. Annual Report 2006-07. Central Plantation Crops Research Institute, Kasaragod, Kerala, India, 124 p.	