

Newly released and notified varieties of coconut and arecanut developed by ICAR-CPCRI for enhancing farmers income

This article presents a brief overview of the characteristic features and commercial cultivation recommendations of four recently released high-yielding, multi-purpose coconut varieties and one arecanut variety developed by ICAR-CPCRI and approved by the Central Variety Release Committee. It aims to acquaint stakeholders with these notified varieties to enhance the productivity and profitability of coconut and arecanut farmers.

Keywords: Arecanut, Coconut varieties, High-yielding cultivars, ICAR-CPCRI, Notified varieties, Plantation crops

THE coconut palm (*Cocos nucifera* L.), revered in India as 'Kalpavriksha' for its multipurpose uses, provides food, beverages, oil, fiber, timber, and other health oriented products such as tender coconut water, virgin coconut oil, and inflorescence sap (*Kalparasa*), while arecanut (*Areca catechu*) is widely used in Asian and Pacific cultures for chewing its dried kernel, known as betel nut. India is among the largest producers of coconut and arecanut globally. The ICAR-Central Plantation Crops Research Institute (ICAR-CPCRI), a premier national institute, is mandated to conduct research on coconut, arecanut, cocoa, and palmyra palm, with a considerable focus on developing improved varieties for diverse uses and agro-ecological zones. To date, the institute has released 23 improved coconut varieties and 11 arecanut varieties, including high-yielding, processable, and stress-tolerant types, capable of producing significantly higher yields than local varieties.

Under the Seed Act, 1966, crop variety notification is essential for Seed Law Enforcement, as certified seeds can only be produced from notified varieties. At ICAR-CPCRI, coconut variety notification began in 2008 and arecanut in 2014, following the establishment of seed/seedling quality standards.

RECENTLY NOTIFIED VARIETIES

Four coconut varieties and one arecanut variety developed by the institute were notified in the recent past.

Coconut

Kalpa Suvarna: A dwarf coconut variety ideal for copra and tender nut production. Fruits are medium sized, oblong, green in colour. Palms commence flowering 30-36 months after planting. The tender nut water content is 431 ml, copra content is around 186 g, with oil content of 64.5%. The variety yields 108-130 nuts/palm/year, under good management. This variety is notified for the states

of Kerala and Karnataka.

Kalpa Shatabdi: A high yielding, tall variety suitable for copra and tender nut production. Fruits are large sized, oval and greenish yellow in colour. Palms commence flowering 7 years after planting. Tender nut water content is 612 ml, copra content is around 273 g, with oil content of 64%. The variety yields 105-168 nuts/palm/year, under good management. Recommended for cultivation in Kerala, Karnataka and Tamil Nadu.

Kalpa Ratna: High yielding, moisture-deficit stress tolerant, multi-purpose tall variety, suitable for copra, tender nut and inflorescence sap (*neera*) production. Fruits are large sized, oval and green in colour. Palms commence flowering 5-6 years after planting. Tender nut water content is 500 ml, copra content is around 184 g, oil content is 64% and inflorescence sap yield is 31 L/inflorescence. The variety yields 148-187 nuts/palm/year, under good management. Recommended for cultivation in Kerala, Tamil Nadu and Karnataka.

Kalpa Vajra: A root (wilt) disease tolerant tall variety, produced by controlled pollination of healthy high yielding West Coast tall palms in the disease hotspots. Fruits are medium sized, oval and green in colour. The palms commence flowering 4-5 years after planting. The tender nut water content is 370 ml, copra content is around 216 g, with oil content of 68%. Average yield of 80-94 nuts/palm/year in root (wilt) disease affected areas. Suitable for cultivation in the root (wilt) disease affected tracts and notified for the state of Kerala.

Arecanut

Shatamangala: High yielding, semi tall, dual purpose arecanut variety, suitable for both tender nut and ripe nut processing. Fruits are round, medium sized and orange in colour. The average yield is 3.26 kg dry tender processed nuts/palm/year or 3.96 kg dry kernel/palm/year.



Coconut varieties **A.** Kalpa Suvarna; **B.** Kalpa Shatabdi; **C.** Kalpa Ratna; **D.** Kalpa Vajra, Arecanut variety **E.** Shatamangala

SUMMARY

Planting material of all these notified coconut and arecanut varieties are available at ICAR-CPCRI. To promote wider distribution, the institute licenses these varieties to nurseries, planters, and other stakeholders, with licensing fees of ₹ 1 lakh for coconut and ₹ 2 lakhs for arecanut. Licensees are provided with breeder seed material for establishment of mother gardens and also provided training and technical support to facilitate planting material production and establishment of nursery.

For more information, visit the ICAR-CPCRI website: <https://cpcri.icar.gov.in>.

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ICAR-Central Plantation Crops Research Institute

In tandem with the aim of the Government to enhance the income/benefits of farmers and sustain the environment, ICAR-CPCRI has chalked out future research programmes in the 2020–25 and 2020–30 roadmap documents that align with the key national agricultural priorities listed below:

- Increasing agricultural production / productivity
- Farmer welfare programmes
- Doubling farmers income
- Poverty alleviation projects
- Sustaining environment