

NEW VARIETIES

Co 06027 : A midlate variety for Peninsular zone

Co 06027 is a midlate maturing variety developed by the Sugarcane Breeding Institute (ICAR), Coimbatore. The variety was notified by the Central Sub-Committee on Crop Standards, Notification and Release of Varieties for Agriculture Crops, New Delhi, in the year 2013 for cultivation in the peninsular zone comprising the states of Tamil Nadu, Kerala, Andhra Pradesh, Karnataka, Gujarat and Madhya Pradesh vide notification no. S.O. 2817(E) dated 19.9.2013. It was developed from the cross CoC 671 x IG 91-1100. Of the two parents, CoC 671 is a high sugar variety and IG 91-1100 is from a polycross (including allied genera) of CoC 772. The variety combines high yield and quality with tolerance to drought and salinity. Co 06027 was tested at 14 locations under the AICRP(S) and was ranked among the top three entries for sugar yield and cane yield in 23 trials. It recorded high sucrose and CCS% in five locations. The variety performed well at Coimbatore, Akola, Kolhapur, Mandya, Navsari, Padegaon, Pravaranagar, Pune and Sankeshwar showing its wide adaptability under varying agro-climatic conditions.

The major yield limiting factors in peninsular zone are drought, salinity and red rot. Co 06027 performed better than the zonal checks *viz.*, Co 99004 and Co 86032 for cane and sugar yield. It recorded an improvement of 13.08% and 9.76% over Co 99004 for cane yield and sugar yield, respectively. The performance of the variety was better than both the standards at eight locations for sugar yield. It recorded a cane yield of 111.30 t/ha compared to Co 99004 (98.42 t/ha) and Co 86032 (109.72t/ha) and mean sucrose of 19.32% at 12th month across locations. The variety is moderately resistant to red rot and also tolerant to drought and salinity. The variety showed very high nutrient uptake of 211.8 of N. The jaggery quality of the variety was on par with the standard Co 86032.

The variety is non-lodging with semi-erect canes, easily detrashing and has few soft spines. It has

characteristic low waxy, yellowish purple cane with small and ovate buds. Since this variety combines high yield and quality coupled with drought and salinity tolerance, it could benefit the farmers as well as the sugar industry in the peninsular zone.

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Co 06030 : A midlate variety for East coast zone

Co 06030 is a midlate sugarcane variety developed by the Sugarcane Breeding Institute (ICAR), Coimbatore from the cross CoC 671 x IG 91-1100. One of the parents IG 91-1100 with high yield and vigour is from a polycross (including allied genera) of CoC772. Since the genetic base of present cultivars and advanced breeding populations is narrow, the variety which is a product of genetic base broadening programme could contribute to varietal diversity and improve productivity in the region. The variety was notified by the Central Sub-Committee on Crop Standards, Notification and Release of Varieties for Agriculture Crops, New Delhi for cultivation in the eastcoast zone comprising the coastal regions of Tamil Nadu, Andhra Pradesh and Odisha vide notification no. S.O. 2817(E) dated 19.9.2013.

Co 06030 performed well at all the three centres of the zone *viz.*, Anakapalle, Nayagarh and Nellikuppam in two plant and ratoon crops. It recorded a cane yield of 103.27 t/ha compared to the best standard CoV 92102 (95.11 t/ha) with an improvement in yield of 10.59 % over Co 86249. In ratoon trials it recorded an improvement of 15.31% over Co 86249 and 12.47% over CoV 92102. The variety Co 06030 was ranked first in the zone with a CCS yield of 11.21 t/ha as against 10.53 t/ha of the best standard CoV 92102. It recorded an improvement of 19.12% over Co 86249, 7.92% over Co 7219 and 6.52% over CoV 92102 for CCS yield. In ratoon trials, it performed well at Anakapalle and Nellikuppam recording 25.53%, 11.73% and 9.32% improvement

over the zonal checks Co 86249, Co 7219 and CoV 92102. For sucrose also, it recorded a mean of 16.60% with 7.44% improvement over Co 86249 and 2.91% over Co 7219. For cane yield as well as sugar yield, it showed better performance over all the three zonal checks. It also recorded a very high ratoon yield of 106.5 t/ha at Anakapalle.

This variety has excellent field habits like non-lodging erect canes, self detrashing nature and devoid of

splits and spines. It has characteristic dark purple and medium waxy canes, and medium sized ovate buds. Since the variety has diverse genetic base and combines high yield and quality, it is expected to improve the sugarcane productivity in the coastal areas of Tamil Nadu, Andhra Pradesh and Orissa.

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