



Field view of sugarcane variety Co 86032

Sugarcane, an important cash crop of India, supports the livelihood of 5 million farmers, 15 million agricultural laborers, five lakh skilled and semi-skilled workers. Sugarcane has enjoyed as a major crop in the tropical India especially in Maharashtra, Karnataka, Tamil Nadu, Gujarat, Kerala and Madhya Pradesh and Interior Andhra Pradesh. Co 312, Co 419, Co 6304, Co 740 etc. were the prominent varieties which made sugarcane a major crop and sugar industry a major agro-industry in the region. CoC 671 was introduced in the region that created sugarcane cultivation remunerative for the factory though its yield in the ratoon crop was less. Saline and drought regions in the states also faced problems in sugarcane cultivation. Also there was demand from farmers for varieties capable for multiratoonability. Flowering was another problem which decided choice of a right variety. Also varieties suited for harvest up to 14 months of age were demand as cane harvest sometimes got delayed due to several problems including weather fluctuations, labour availability for harvest. All these kept varietal evolution directed to develop varieties suitable to all these situations.

Since the release of Co 6304 (hailed as a second wonder variety for tropics) in 1970 and Co 740 (very suitable for Maharashtra) in 1949, there was stagnation in sugar recovery and sugarcane yield under varied agroclimatic conditions of Peninsular zone. Crossing of two high sucrose varieties as parents Co 62198 and CoC 671 and subsequent selection yielded Co 86032. Ever since the variety completed AICRP trials in 1994,

the potential of the variety started reaching the beneficiaries as this variety was a near complete pack of several advantages as mentioned below.

Characteristics of Co 86032

1. High yield
2. Retaining high quality up to 14-15 months after planting
3. Responds to normal cultural practices and responds to high fertilizer doses to yield proportionately higher yield
4. A good ratooner. There are farmers taking more than 18 ratoons with Co 86032
5. It is suitable under different field spacing, including normal (90 cm) and wide (120 to 150 cm) rows.
6. The variety is field tolerant to red rot and is staying resistant to red rot even after 25 years of field cultivation
7. It is moderately resistant to smut disease
8. It is moderately resistant to wilt disease
9. It is moderately tolerant to drought
10. The variety is moderately tolerant to salinity
11. A non-flowering variety at many places/ shy flowering with late flowering nature under Coimbatore conditions
12. A near perfect variety suited to all agroclimatic conditions of Peninsular zone of India

Varietal performance over years

1. Co 86032 was identified for the tropics during 1994 and started spreading during 1996.
2. Following the wide spread occurrence of red rot in CoC 671, the area under this variety declined, which is reflected in the low recovery during 1990s.
3. Thereafter the recovery improved to 9.92% during 2004, with the establishment of Co 86032 as the predominant variety in the state.
4. Analysis of sugarcane productivity indicated that the yield level was maintained at about 105 t/ha throughout the period from 2000-01 to 2013-14 (except drought years-2003, 2004 and 2013).It was corresponding with the cultivation of the Co 86032 in Tamil Nadu.

5. The ratoon yield is as equivalent with plant crop yield.
6. The variety has recorded highest yield (324 t/ha)
7. Higher yield (more than 200 t/ha) was reported by the many sugar mills in the state during the year 2009-2012.
8. Cultivated about 0.85 million ha in the tropical zone of India.
9. 80 % of cane area in Tamil Nadu is occupied by this variety. The area occupied by the variety during 2008-09 to 2013-14 is given below.
10. The average yield of the was improved 5-10/ha in different agro climatic zones of the Tamil Nadu state

Year	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Area in million ha	1.10	0.87	0.92	1.26	1.10	1.15

11. Sugar recovery was improved by 1 unit in Tamil Nadu sugar mills
12. the profit of farmers increased by about Rs. `33,000/ha (at 2018 prices). It helped sugar mills to operate in their full capacity and provided regular employment to people engaged in cane production and processing.
13. The economic impact of this variety is in the range of over Rs. 20,354.6 crore by 2015-16 in terms of net additional value since large scale adoption of the variety in the tropical India