

## REFERENCES

- Adam, D. B., Mc Neil, J., Hansonmerz., B. M., McCarthy, D. F. and Stokes, J., 1949, The estimation of latent infection in oranges. *Aust. J. Sci. Res. Ser. B.*, 12 : 1-18.
- Binyamini, N. and Schiffmann-Nodes, M., 1972, Latent infection in avacado fruit due to *Colletotrichum gloeosporioides* *Phytopathology*, 62 : 592-594.
- Daykin, M. F. and Micholland, R. D. 1984, Ripe rot of muscadine grape caused by *Colletotrichum gloeosporioides* and its control. *Phytopathology*, 74 : 710-714.
- Lenne, J. M. and Sonoda, R. M., 1979, The effect of seed inoculation with *Colletotrichum* spp. on the emergence, survival and seedling growth of *Stylosanthes humata*. *Trop. grass lands*, 13 (2) : 106-109.
- Naik, K. S., 1986, Studies on blight of coriander (*Coriandrum sativum* Linn.) caused by *Colletotrichum gloeosporioides* (Penz.) Penz. and Sacc., M.Sc. (Agri.) thesis submitted to the University of Agril. Sciences, Dharwad, pp. 105.
- Naik, K. S., Hiremath, P. C., Hegde, R. K. and Navi, S. S., 1988, Coriander blight incited by *Colletotrichum gloeosporioides* a new disease in Karnataka (in press).

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### A Note on the Possibility of Improving Recovery in Sugar Mills of North Karnataka

Sugarcane is an important cash crop of the world. India is one of the premier countries next to Brazil with respect to area and production. It forms 7% of the gross value of agricultural product with only 2% of area under the crop. Of late the domestic consumption is increasing appreciably as a result the internal demand coupled with external demand for sugar is increasing. This has necessitated a sizable improvement in the sugar productivity and production. The agro-climatic situations of Northern Karnataka are very much congenial for high productivity. However, the present productivity is below its production and productivity of sugar mills has been made.

North Karnataka with eight districts accounts for 66% of cane area and 56% of production in the state with an average cane production of 66t/ha. At present, 16 sugar factories are in operation and a few more are in the offing. The crushing season extends from mid October to as late as May, however, the average crushing days are just 133 days (Table 1). Some sugar mills crush for nearly 195 days in Belgaum region. Under limited cane supply due to moisture scarcity it may be even less than 100 days. The recovery picture is particularly variable recording lower recoveries during early part (October-November) and fag end (April-May) of the season. The variation in recovery is

Table 1. Average monthly and yearly sugar recovery and duration of crushing

	Average monthly sugar recovery (%)							Average sugar recovery (%)	Crushing period (days)	
	October	November	December	January	February	March	April			May
1. Sri Malaprabha Co-op. Sugar Factory, M. K. Hubli (Belgaum)	—	9.42	10.53	11.31	11.25	11.06	10.32	9.67	10.01-11.37 (10.73)	107-195 (157)
2. Ghataprabha Sahakari Sakkare Karkhane, Gokak (Belgaum)	8.62	9.11	10.06	10.84	10.83	10.03	9.79	6.89	9.71-10.95 (10.19)	—
3. Karnataka Sahakari Sakkare Karkhane, Haveri (Dharwad)	9.42	9.42	11.62	11.62	11.01	9.84	9.10	—	8.31-10.65 (10.51)	130-150 (140)
4. The India Sugar & Refineries Ltd., Hospet (Bellary)	—	9.40	9.93	10.61	10.62	10.06	8.96	—	9.83-10.82 (10.36)	81-131 (102)
	9.02	9.34	10.53	11.09	11.08	10.25	9.54	8.24	10.45	

attributed to climatic factors and varietal responses. The peak recovery during January–February is due to large diurnal variation in the temperature (20–24°C) which is congenial for sucrose accumulation in plants. To improve sucrose recovery efforts are to be directed towards bringing down the fluctuation in monthly recovery and in extending the crushing period of sugar mills.

Scheduling of planting of early, mid and late varieties with high sugar content in the factory zone is an important aspect as varieties differ in sucrose content depending on time of planting and stage of harvest. Patil (1989) while working on time of harvest, reported improvement in quality of juice up to

12–15, 12–14 and 13 months with September to November and January plantings, respectively. The juice quality deteriorated after March irrespective of time of planting. However, Deulgaonkar and Kembhavi (1989) reported that varieties like Co 7704 and COC 671 have an edge over traditional mid to late maturing varieties, Co 740 and Co 419 at all stages of harvesting (10 to 14 months) over a period of planting (December to March) with an average recovery of 11.59 and 11.97 per cent, respectively (Table 2).

Of late, the special season planting (June–July) which is being implemented by sugar mills with great enthusiasm as it could extend crushing during May is another agronomic practice of much

Table 2. Effect of month of planting, varieties and age of harvest on the sugar recovery (%) at Godavari Sugar Mills Ltd., Sameerwadi

	Age of harvest (months)					Average
	10	11	12	13	14	
<b>I. Planting Month :</b>						
December	—	10.67	11.43	—	—	11.05
January	10.99	11.13	11.71	11.57	11.95	11.47
February	10.29	11.88	11.76	11.88	—	11.45
March	11.19	11.13	11.90	—	—	11.40
April	11.37	11.57	—	—	—	11.47
<b>II. Varieties :</b>						
Co 7704	11.13	11.36	11.80	12.03	12.15	11.59
Coc 671	11.41	11.73	12.61	12.58	12.33	11.97
Co 7219	10.68	10.92	11.51	11.49	11.96	11.12
Co 6415	10.25	11.34	11.46	11.65	11.76	11.07
Co 740	9.36	11.23	11.15	11.54	11.74	10.88
Co 419	8.66	11.21	11.60	11.67	11.78	10.68
Mean	10.53	11.28	11.69	11.80	12.04	

relevance to the situation. It is particularly advantageous in places of moisture shortage where planting with the first monsoon showers or release of water in canals is possible provided flowering is not a problem for the variety used for planting. Such planting enables harvesting two crops, a main and ratoon, in about 18 months. COC 671 and Co 7704 because of their adoptability are more suitable. Patil (1989) considering these points suggested a scheme of planting and harvest for high recovery. Early varieties (COC 671 and Co 7704) may be planted early in the months of October to January and harvested during November to January/February. The mid season varieties (Co 7219, Co 8014, and Co 8011) may be planted in the months of January to March and harvested next year during January and March. Late season variety (Co 740) may be planted between December and February and harvested during February to April a year later. Thus the early, mid and late

maturing varieties when sown in a proportion of 40 : 40 : 20 per cent, respectively, could give a crushing period of 70, 70 and 35 days, respectively. Further, the special season planting (June-July) with early varieties (COC 671 and Co 7704) extend crushing period by another 20-25 days in May in all giving an ideal crushing period of around 200 days with recovery of above 11 per cent.

From the study, it is clear that with the available technology and genetic material, there is possibility of increasing sugar production and productivity in northern Karnataka.

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#### REFERENCES

- Deulgaonkar, B. W. and Kembhavi, V. B., 1989, Impact of high sugared early maturing cane varieties in the factory area at Sameerwadi, A status paper on strategies for improving sugar recovery presented at first workshop of Sugarcane Workers of North Karnataka, 21 & 22 July, 1989, Dharwad, Karnataka (Unpublished).
- Patil, R. S., 1989, Strategies for improving sugar factory recoveries through varietal planning for Northern Karnataka - A status paper on strategies for improving sugar recovery. Presented at First Workshop of Sugarcane Workers of North Karnataka, 21 & 22, July 1989, Dharwad, Karnataka (Unpublished).