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RECORD OF CROTON OBLONGIFOLIUS ROXB. AS A HOST OF RANGEENI STRAIN OF LAC INSECT, KERRIA LACCA (KERR)

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Glover (1937) and Roonwal *et al.* (1958) have recorded *putri* (*Croton oblongifolius* Roxb.) (Euphorbiaceae) as a lac-host but have not mentioned the particular strain of lac insect sustained by this host. Subsequently, the same tree has been recorded as a host of *Kusmi* strain of lac insect from Taimara area in Ranchi Forest Division, Chotanagpur, by Purkayastha and Krishnaswami (1961) and later on at Jhalda (West Bengal) by Das Gupta and Mehra (1967).

While searching for broodlac during January, 1970, the authors came across about 10 trees of *C. oblongifolius* carrying some old lac encrustation which was in *phunki* stage, in Nawadih village (30 km from Ranchi) and Gabrya village (5 km from Nawadih) in Ranchi Forest Division, on Ranchi-Tata Road. On a close observation, it was noticed that as a result of self inoculation from the existing lac, fresh settlement of lac larvae had occurred on the same branches as well as elsewhere. Enquiries from the villagers revealed that this particular tree is considered by them as a suitable *Rangeeni* host at par with *palas* (*Butea monosperma* (Lamk.) Taub) and *ber* (*Zizyphus mauritiana* Lamk.) which are the most widely used and established *Rangeeni* hosts.

A detailed examination of the encrusted lac on *putri*, as regards the nature of encrustation, colour and the shape of resin cells showed that the cells were of dark crimson colour and were oval in shape which are characteristic to *Rangeeni* strain of lac insect. The encrustations were fairly good throughout 1-2 metres long shoots. The male and female lac cells in the freshly settled individuals could be recognised distinctly. The males started emerging on 29.1.1970. The emergence of the males during this period corresponds to the *Baisakhi* crop of *Rangeeni* strain of lac insect which further confirms that the strain is *Rangeeni*. The progeny, however, gave rise to 38 per cent of males.

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References

1. Das Gupta, J.M. and Mehra, B.P. (1967)—Recorded and unrecorded lac-hosts from West Bengal. *Indian Forester* 93(5): 332-340.
2. Glover, P.M. (1937)—Lac cultivation in India. Indian Lac Research Institute, Namkum, Ranchi : 87.
3. Purkayastha, B.K. and Krishnaswami, S. (1961)—Notes on some recorded and unrecorded plants with *Kusmi* strain of the lac insect. *Curr. Sci.* 30: 152-153.
4. Roonwal, M.L.; Raizada, M.B.; Chatterjee, R.N. and Singh, Balwant (1958)—Descriptive account of the host plants of the lac insect *Laccifer lacca* (Kerr), and the allied plants in the Indian region. Indian Lac Cess Committee, Ranchi, India: 86.