SHORT SCIENTIFIC NOTES

Rain Tree Fruit—A New Raw Material for Alcohol

Rain tree, *Albezzia lebbek*, (Dirisana in Telugu), is a big tropical tree, largely grown for its shade. The fruit bears a remote resemblance to the fruit of the tamarind tree and consists of pods containing pulp and seeds. When unripe, the fruit is greenish, but when ripe, it becomes blackish and the pulp tastes sweet. The ripe fruit drops down and collects under the trees and is eaten by goats and cattle.

The ripe fruit has been found to contain 15% moisture, 17% reducing sugar and 38% total reducing sugar as glucose. The fruit (100 gm), crushed and fermented whole with addition of water and a pure culture of distillery yeast, gave a net yield of 20·5 cc of absolute alcohol, 82% of the theoretical yield. This yield corresponds to about 45 gallons of absolute alcohol per ton of the fruit. Water extract of the fruit has also been separately fermented and has more or less confirmed the yield of alcohol.

Rain tree fruit is worth exploiting for alcohol according to need and convenience. For fermentation and recovery of alcohol on large scale, the fruit would need to be crushed and extracted with water and strained.

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Occurrence of the Household Insect, *Asura conferta* Wlk. (Arctiidae: Lepidoptera) on Field Crops

Asura (= *Nepita, Pitane) conferta* Wlk.[3], a household insect, distributed in sub-montane districts of southern India, was found feeding on moss and lichens[2]. The larva was not known to damage crops but formed a peculiar noxious pest owing to the large numbers in which it often occurred in houses and the irritating nature of its hairs[1].

During July–November, 1973 and July–August, 1974 the hairy caterpillar of *A. conferta* was observed feeding on mulberry, brinjal, ragi and jowar leaves in Hebbal, in addition to feeding on moss and lichens, and invading the houses, especially the walls. The young caterpillars were feeding gregariously on the undersurface of the leaves, leaving only the upper epidermis. As a result the leaves were skeletonised and curled downward and dried. The grown up caterpillars defoliated the leaves, especially the tender ones, and migrated from plant to plant by means of silken threads spun by them.

This insect was observed to damage the field crops for the first time, showing the possibility of its becoming a regular crop pest.

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A Rapid Test for the Identification of Virus-Infected Groundnut (*Arachis hypogaea* L.)

The application of diagnostic tests for identifying the virus-infected plants has been found to be useful either in eliminating sources of virus inoculum in the field or obtaining virus-free seed materials. Such tests are based on differential colour reactions of infected tissues[1] or serological tests. The bud blight disease of groundnut is assuming importance in many districts of Tamil Nadu State because of its widespread occurrence. The development of technique based on which the infected plants can be eliminated at the earliest possible time would help to reduce the spread of the disease.

Various parts of the infected groundnut plants, *viz.*, leaf, petiole, stem and root were tested. The petiole was found to be the suitable tissue for the test. Free-hand sections of petioles of the second leaves from the top of the healthy, infected plants and the branches of infected plants showing no apparent symptoms of the disease, were taken. The cross-sections were immersed in 0·05% phloroglucinol in alcohol for 5 minutes. Then the sections were transferred to concentrated hydrochloric acid in which they were placed for 30 to 60 seconds. The sections were then washed in distilled water and observed under the microscope. Fifty sections from petioles of healthy and infected leaves and the leaves from branches showing on apparent symptoms were examined.

In the petioles from the healthy plants, the xylem was faintly stained and appeared light pink in