

The *mowra* tree sheds its leaves in February and the flowers appear in March and April, at which time the ground beneath the trees is carefully cleared.

The flowers have a thick, juicy, globe-shaped corolla of a pale-cream color, inclosed at the base in a velvety chocolate-colored calyx. The corollas fall in the early hours of the morning and are collected by women and children. They are spread out to dry on mats in the sun, when they wither to half their weight and develop a brownish red color. In some cases the flowers are collected before they drop, and in many places it is the practice to remove only the corollas, leaving the pistil to ripen to a fruit. A tree will yield 200 to 300 pounds of flowers in a year.

When fresh, the flowers are extremely sweet, with a peculiar pungent flavor and a characteristic color. When dry, the peculiar pungent flavor is less perceptible, particularly if the stamens are removed, and the flavor then resembles that of figs. The flowers are eaten either fresh or dried and cooked in many different ways with rice, shredded coconut, or flour.

The greater portion of the crop of flowers is used for the preparation by fermentation of *mowra* spirit.

The corollas are very useful for feeding cattle; they have extraordinary keeping qualities, as they dry well and are not attacked by weevils.

The composition of the flowers has been investigated at different times and the results vary considerably, particularly in respect of the quantity and nature of the sugar present. The total proportion of sugar recorded in the flowers of this tree varies from 40 to 70 per cent. The quantity of cane sugar recorded varies from 3 to 17 per cent, and that of invert sugar from 40 to 53 per cent, while one author has stated that the sugar is entirely invert sugar. Only a small quantity of protein is present, the maximum record being 7.25 per cent.

The nuts contain a solid fleshy kernel, which includes from 35 to 40 per cent of greenish grease, obtained by pressure. The oil cake possesses a bitter taste and can not be used for cattle feeding. The butter becomes rancid soon after manufacture and becomes a dirty yellow color. Its density at 15° C. is 0.972; it melts at from 43° to 44° C. and solidifies at 36°. It is very soluble in ether and partially so in alcohol. It saponifies easily with alkalis, and it constitutes a mixture of 80 per cent stearin and 20 per cent oleine, with crystals of stearic acid. This oil is used to adulterate clarified butter and for soap and candle making.

During the war interest was centered in the production of acetone from these flowers in India to supply the local demand in connection with the manufacture of munitions. The acetone was produced by the now well-known special fermentation process, and it has been alleged that the yield from the flowers of *Bassia latifolia* was one-tenth of their weight, or nearly ten times as much as is obtainable by distilling wood. The demand for acetone in India in peace times would not be large enough to justify the available supplies of flowers being entirely devoted to the manufacture of that product, but there remains the possibility of their being used for the manufacture of industrial alcohol. The yield of alcohol from the flowers is high compared with that from potatoes and other materials commonly used. It has been stated that about 90 gallons of 95 per cent alcohol is obtainable from 1 ton of dried flowers.

In view of the extended use that is now being made of alcohol for power purposes, it seems likely that the most profitable way of utilizing the flowers would be as a source of a mixed motor spirit of the natalite type, for local use in India. That motor spirit can be produced on a manufacturing scale in