1. Gross receipts from the fourth year onwards. Value	of 800 maunds
or 20,000 lb. at a flat rate of Rs. 6-8-0 per ma	und (for both
erops)	Rs. 5,200/-
2. Expenditure from the fourth year at Rs. 1,450/-	Rs. 1,450/-
3. Not return	Rs. 3,750/-

The above figures are based on conservative estimates of yields obtained from a small holding owned and managed by a grower of average means. In some of the well kept vineyards owned by enlightened growers with adequate means and facilities, the yields are reported to be as high as 1,000 maunds or 25,000 lb. for both the seasons, ensuring an annual return of nearly Rs. 5,000/- per acre.

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## A Little Known Spice Plant Zanthoxylum Rhetsa, DC.

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Description and distribution: Zanthoxylum Rhetsa Dc., termed fittingly as the Assembly tree by Roxburgh because of its large size and spreading branches under whose shade the hill tribes used to conduct their meetings belongs to the family Rutaceae. In Malayalam it is called Kattamanakku, or Mullilam, in Tamil as Elavangam and in Telugu as Rhetsa maram. The tree has a wide distribution at low elevations in the forests of the Eastern ghats from Ganjam to the Godavari upto 3,000 feet and in the Western Ghats in South Kanara, Mysore, Malabar and Travancore at about the same altitudes. Plants collected from most of these places are preserved in the Madras Herbarium at the Agricultural Research Institute, Coimbatore. The tree has a very striking appearance with prominent spines which clothe densely the trunk, branches and petioles. In the older parts of the trunk and the branches, the spines have a solid conical base. The bark is cream coloured. The leaves are alternate, imparipinnate, leaflets opposite, entire, strikingly oblique base

and acuminate tip. The flowers are small, borne in terminal cymose panicles. They appear from June to November and the fruits are seen from October to January. The bark, pericarp and seed are all aromatic.

Economic importance: The plant is essentially of spice value. In South Kanara, the fruits are gathered during the season, preserved and used as a condiment in all culinary preparations, both sweet and savoury. The bark is used as a substitute for lime. The essential oil is used medicinally as an antiseptic, disinfectant and also in Cholera. The corky enlarged base of the spines are used for making seals or stamps.

Remarks: The tree belongs to the well known family of lime and orange. Economic botanists know full well the value of such members of the family as have been investigated. In my opinion, the plant Zanthoxylum Rhetsa, deserves greater study and wider use. It is possible it is rich in some vitamins and we are yet to know more of its medicinal properties. At a time when we want to grow our own spices and drugs, there is an opportunity for investigation. Fortunately, the tree is in abundance and has a splendid distribution. On research, it may even lead us to think of cultivating the plant in forest areas. It is not unlikely it will prove of as much value as Vanilla, for flavouring confectionery.

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