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distances of 15 to 18 feet; the planting holes have to be 2 to 3 feet in breadth and in depth. At an altitude of 3,000 feet above sea level the tree is fit to be tapped at an age of about 16 years. It yields more at an altitude of 1,800 feet, where it fruits after 12 or 13 years. In the lowlands, too, it will succeed, but I can not say when it fruits there.

"The *aren idjo* (green arenga) is considered to be the most productive variety of our country. In the high regions it produces during about four years, in lower parts during three years; the quantity of juice and sugar continue getting less as the tree grows older. At the first tapping—this means when the first male peduncle is tapped—the tree produces about 7 liters of juice per twenty-four hours during about two and one-half months. Of some trees a second peduncle may be tapped immediately after the first one; of others, only after some time (three months). An arenga tree may be tapped from three to ten times, with an average of six times. At the second and following tappings the arenga produces at every tapping for a period of about forty-five days about $5\frac{1}{2}$ liters of juice (per twenty-four hours) of a declining sugar content; about $3\frac{1}{2}$ liters of juice of the first tapping give about 0.617 kilo of sugar; the following tappings give the same quantity of sugar to a production of $5\frac{1}{2}$ liters of juice. The production of sugar of one tree during its whole lease of life may be stated at about 225 kilos, with a local value of 13 cents (about 5 American cents) per kilo, or in total about 30 Dutch guilders (12 American dollars).

"The sugar is prepared by boiling the juice. This boiling takes much fuel, which fact gives no trouble in the interior of Java; however, if wood had to be bought for the purpose—as it would be in towns of Java—the value of the sugar would not make good the expenses for fuel. Sugar, therefore, is not manufactured in and near the towns.

"As to the method of tapping, I beg to refer to the work of A. Tschirch, *Indische Heil und Nutzpflanzen*, Berlin, 1892, page 160. This book does not mention that the male peduncle has to be swung to and fro during some days, and afterwards beaten effectively before the inflorescence is cut off; further, that every day during the tapping a slice of the peduncle has to be cut off. Experiments made here some years ago by Professor Mölisch have shown that without any doubt stimuli have a great effect on the flow of sugar-containing juice.

"Taking the figures given above as a basis for calculation, an acre can be planted with 160 trees of *A. saccharifera* (*S. pinnatus*), which, producing 500 pounds of sugar per tree, will theoretically give a total production of 80,000 pounds, equal to 35 tons per acre, at the end of from fifteen to twenty years, or an average of from 2 to $2\frac{3}{4}$ tons per year.

"Personally, I am inclined to think the actual production will be considerably below these figures, one reason for this being that with such close planting the trees will not be able to develop fully; probably an average of about 100 fully developed producing trees will be nearer the mark, but even then a production of over 1 ton per year will be obtained.

"The great drawback is that, from the nature of the sugar palm, it will probably not be possible to grow catch crops after the third or fourth year; during the first twelve to sixteen years no profits are obtained; then comes a big harvest during three or four years, after which the plantation is valueless, and it will entail considerable expense to again clear the land for other crops. Moreover, taking into consideration that most people, and especially tropical people, are not inclined to wait a dozen years or longer before they get any