

whole fruit is planted, three years are necessary. Plant in the nursery first; then transplant, spacing 10 feet apart for square method. When full grown the tree is from 30 to 40 feet high. The yerba is the leaf, cut and prepared about once every three years if you own the tree, once every two years if you rent the yerbal. The extra year acts the same on the life of the tree as proper or improper pruning does on fruit trees. The general method here is to rent two or three yerbales and harvest one each year, the picking season of Paraguay being from June 15 to the end of August.

"As near as I can find out, the method of preparing for market is to pick the leaves, partly dry by a fire, finish drying in the sun, and then break up fine with a kind of flail, when it is ready to sack and market. The flavor of yerba is regulated by variety; the strength, by years of growth and methods of preparation. The yield of yerba is about 3 kilos per tree when three years old, 6 kilos per tree the second crop, and a gradual increase then until full grown, when you can cut 80 to 100 kilos (this is probably incorrect as most authorities agree that only 25 to 35 kilos can be cut every three years).

"Maté, or, yerba takes the place of tea and coffee south of Brazil, and its use is being widely extended. There are already companies in Britain for exploiting it, and the export to Mediterranean countries has attained some volume. It has the general reputation of being far less injurious than tea or coffee. When used constantly, however, you have the same craving as with the others, and the majority even go so far as to endow the use of yerba, especially 'amargo' (without sugar), with medicinal qualities, though experiments carried on in Buenos Aires go to prove that such claims are greatly exaggerated, and the 'cup of maté was not so good for Mary Anne' as the Buenos Aires Standard expressed it.

"Yerba is the name of the herb, but the tea is always spoken of as maté. Maté cocido is boiled yerba; this taken the same way as tea or coffee in cups is the 'gringo' style. For peons, a tin cup of maté and six small biscuits keep their speck of life until noontime. The general method of serving, however, is with maté and bombilla, the word 'maté' here meaning the small gourd used to hold yerba and the 'bombilla' the thin tube through which maté is sucked. The maté is about the size of a small cup. The yerba is placed inside and the resultant tea sucked out through the bombilla. The use of sugar is optional. On emptying the maté cup hot water is poured in again and it is passed to the next member of the ring around the fire; a very unsatisfactory and unsanitary method, to say the least, but the only way according to the natives, even though it is necessary to repeat the operation for about two hours to get enough. Maté cocido would be the only method for white people. Yerba sells in Buenos Aires for \$1.15 in silver (about 50 cents in gold) per kilo." (Mead.)

See No. 25529 for previous introduction.

29098. *POPULUS TREMULA* L.

Poplar.

From Tiflis, Caucasus, Russia. Presented by the Tiflis Botanic Garden. Received December 5, 1910.

"The wood of this tree is used almost exclusively in the match industry of Sweden. Undoubtedly the other species of *Populus*, i. e., *P. alba* and *P. canescens*, could be used to advantage for the same purpose but for the fact that the latter are not so abundant as *P. tremula*. *P. tremula* does not appear to have been noticed by botanists in America, although it is frequently found planted in our parks. It is readily recognized by its large dark-brown buds, 1 centimeter long and half as wide. These are rather blunt and not pointed, as in the case of the Lombardy and Carolina poplars. *P. tremula* was in all probability introduced into Maryland by the early settlers, as it and other species are frequently found about the old mansions." (Extract from letter of Mr. I. Tidestrom, of the Bureau of Plant Industry, September 17, 1910.)