

## 36889 to 36896—Continued.

be fried in deep oil, are delicious, superior to those fried in the fine qualities of pure light-green olive oil that I have seen. The seeds roasted lightly over a fire in an ordinary saucepan are often added to cakes, somewhat like the poppy seeds the Germans are so fond of over their various breads and rolls, and often some of the fancy rice dishes are made with a mixture of the sesame seed. It is used largely to sprinkle over the sticks of barley sugar sold on the streets, performing the double office of powder to keep the candy from sticking together and adding a nutty flavor, which enriches the candy." (*Kin.*)

## 36897 to 36899.

From Hongkong, China. Presented by Mr. W. J. Tutcher, superintendent, Botanical and Forestry Department. Received December 27, 1913.

**36897.** ALEURITES MONTANA (Lour.) Wils. **Mu-yu (wood-oil) tree.**

"*Mu-yu.* The three species of Aleurites, *fordii* Hemsl., *montana* (Lour.) Wils., and *cordata* R. Br., from very early times have been almost hopelessly confused. The first mention of the *Mu-yu shu* (literally, wood-oil tree), *A. montana* (Lour.) Wils., occurs in Lamarck's Encyclopédie Méthodique Botanique, where, under the name *Dryandra oleifera*, the fruit of this tree is described, in conjunction with the flowers and foliage of *A. cordata* R. Br. He [Lamarck] states that it is called *Mou-yeou* by the Chinese and that it was cultivated in the Jardin du Roi, at l'Isle de France. The Jesuit missionary, Loureiro, a Portuguese, established himself at Canton in 1779, and for three years investigated the flora of that region. He secured specimens of the *Mu-yu shu*, and in his Flora Cochinchinensis, page 518 (1790), describes it as *Vernicia montana*, and his specific name, being the oldest valid name, must stand. Subsequent authors have given other names to this tree, and several of them, notably Mueller Arg. (in De Candolle's Prodrum, vol. xv, pt. 2, p. 724, 1866), continued the confusion begun by Lamarck (loc. cit.).

"As a cultivated tree, *A. montana* occurs in the subtropical parts of south-eastern China, from the province of Fokien southward to Tonkin, and is also undoubtedly a native of these regions. It requires, without question, a subtropical climate and a more abundant rainfall than its more northern relative, *A. fordii*. In the central part of the Fokien Province, both *Mu-yu* and *Tung-yu* trees occur, according to Dunn (Report of the Botanical and Forestry Department, Hongkong, 1905, p. 117), and are known colloquially as *Hwa-tung* and *Guong-tung*, respectively. The *Hwa-tung*, to quote Dunn, 'is the most valued, because all the flowers of the majority of the trees produce fruit from which the oil is made, while in the second kind a few flowers only in each cluster are perfect, quite 80 per cent being male flowers.' This statement is not borne out by specimens before me, including some collected in Fokien by Dunn. The inflorescences might almost be classed into male and female, but there is nothing to indicate whether or not they came from the same or different trees. From the herbarium material one might reasonably assume that the tree was nearly dioecious, yet in all probability it is monoecious, as in other species of the family, but with a strong tendency to have the male and female flowers collected in different inflorescence of the same tree.

"The *Mu-yu* tree in size, habit, foliage, and general appearance (but not in the flowers and fruits) closely resembles the *Tung-yu* tree (*A. fordii* Hemsl.). The flowers are borne in a terminal corymb or a raceme on shoots of the current season's growth after the leaves have fully expanded. The 'male' inflorescence is many flowered, much branched, corymbose, 15 to 20 cm. long, and 20 to 30 cm. (1 cm. equals 0.3937 inch) broad. The 'female' inflorescence is