

**47496 to 47503—Continued.****47502. SPATHODEA NILOTICA** Seem. Bignoniaceæ.

This is a bushy tree up to 20 feet in height; native to the upper Nile Valley and the Belgian Kongo. The opposite leaves are made up of 9 to 15 leathery leaflets covered with dense short hairs beneath. The scarlet flowers are borne in short, dense, terminal racemes and resemble closely those of the well-known *Spathodea campanulata*. (Adapted from *Thiselton-Dyer, Flora of Tropical Africa, vol. 4, p. 529.*)

**47503. SYZYGIUM** sp. Myrtaceæ.

A shrub or small tree probably bearing edible fruits; closely related to the Eugénias.

**47504 to 47507. ELAEIS GUINEENSIS** Jacq. Phœnicaceæ.**Oil palm.**

From Buitenzorg, Java. Presented by Dr. P. J. S. Cramer, chief, Division of Plant Breeding, Department of Agriculture. Received April 24, 1919.

The oil palm is indigenous to the Guinea coast, where travelers found it used by the natives as early as the sixteenth century. From there it has gradually been disseminated throughout the Tropics.

The palm attains 15 to 20 meters in height; its trunk is erect and straight; the trees are monœcious, and the pistillate flowers develop into fruits (drupes) of the form and size of a prune, yellow or brownish at maturity, according to variety.

These fruits, numbering 1,000 to 1,500 upon a raceme, have a hard, woody endocarp surrounded with a fibrous and at the same time fleshy pulp, varying in thickness according to variety, and containing much oil. The seed contains an oleaginous kernel which is exported to Europe under the name *palmiste*.

In his Documents sur le Palmier à Huile, Chevalier mentions several varieties of this plant, differing in production and the quality of their oil. The development of improved varieties will be a matter of great importance.

The racemes are harvested by natives who are very skillful in climbing the palms. The principal season of ripening is toward the end of the rains, but the harvest continues more or less throughout the year.

The fruit yields two sorts of oils: One is extracted from the pulp (*huile de palme*) and the other from the seed (*huile de palmiste*).

*Huile de palme* is seen in Europe only in the solid state, since it does not become liquid at a lower temperature than 40° C. It is orange-yellow in color. When fresh it has a faint odor of violets and is employed by the natives who use it very extensively in cooking. It becomes rancid very quickly. Commercially, it is used in soap making.

In its native home (Dahomey, for example) the oil is extracted by fermenting the fruits in jars for several days; they are then mashed, the nuts are taken out, and the pulp is boiled in large kettles of water. The oil rises to the surface of the water and is skimmed off. Its purification is later brought about by boiling it for some time. The nuts, clean of pulp, are then broken with stones or hammers. The kernel (*palmiste*) is removed and dried, after which it is ready for use. These dried kernels are exported to Europe, and yield under pressure 40 to 42 per cent of palmiste oil which is white and has a melting point of about 25° C. This oil is employed in the making of fine soap. (Adapted from *Capus et Bois, Les Produits Coloniaux, 1912, p. 294.*)