

55465. ONCOBA ECHINATA Oliver. Flacourtiaceæ. **Gorli.**

From Sierra Leone, Africa. Purchased from L. A. King-Church, conservator of forests, Freetown, Sierra Leone. Received June 1, 1922.

"The commercial sources of chaulmoogra oil and some closely related products which yield chaulmoogric and hydnocarpic acids have always been and still are the seeds of forest trees (*Taraktogenos kurzii*, *Hydnocarpus anthelminthica*, and *H. wightiana*, and possibly others) growing in the rain-forest regions of British India and Siam. It has, however, been observed by Goulding and Akers that the seeds of a West African shrub, *Oncoba echinata*, yield an oil which contains a large proportion of chaulmoogric acid.

"Through the explorations of J. F. Rock, of this office, seeds of the forest trees (*Taraktogenos kurzii*, *Hydnocarpus anthelminthica*, *H. wightiana*, and *H. castanea*) have been secured and plants obtained from them are now being grown in various countries. Inasmuch as these are all tall trees, considerable time would doubtless be required for the production of fruit. On account of this fact a search has been made for more rapidly maturing plants which yield chaulmoogric acid, and through the kindness of L. A. King-Church, conservator of forests of Sierra Leone, a considerable quantity of seeds of the *gorli* shrub (*Oncoba echinata*) has been secured.

"Since the investigations of Goulding and Akers (see Proceedings of the Chemical Society of London, vol. 29, No. 417, p. 197) of the Imperial Institute, have established the fact that *gorli* seeds yield 45.6 per cent of fat and that the mixed fatty acids obtained from this consist to the extent of 87.5 per cent of chaulmoogric acid, the importance of making an attempt to get the plant and cultivating it was pointed out by Dr. Frederick B. Power in his chapter in Mr. Rock's bulletin entitled: 'The Chaulmoogra Tree and Some Related Species,' p. 8 (U. S. Department of Agriculture Bulletin No. 1057).

"From the literature relating to the genus *Oncoba* it appears that it is composed of shrubs or small trees; that there are several species, all of them African, and that they bear fruits of considerable size. *Oncoba echinata*, for example, has fruits resembling in size and shape an unopened chestnut bur. That these shrubs are precocious is indicated by the fact that one species, *Oncoba routledgii*, flowered in England two years from seed. This won a certificate from the horticultural society on account of the conspicuous beauty of its large white flowers, which are 2 or 3 inches in diameter.

"Whether *Oncoba echinata* is especially particular as to its soil requirements remains to be determined, but, judging from the experience which we have had with other trees and shrubs from Natal and other portions of Africa, there would seem to be a fair chance that it might thrive even on the limestone soils of southern Florida." (*David Fairchild.*)

55466 and 55467. AVENA SATIVA L. Poaceæ. **Oats.**

From Cambridge, England. Seeds presented by Prof. R. H. Biffen, Cambridge School of Agriculture. Received May 24, 1922.

These two new hybrid varieties of *white winter* oats were originated at the Plant-Breeding Institute, Cambridge, England, and are introduced for the use of oat breeders in this country.

55466. *A. 69.*

55467. *A. 147.*

55468 and 55469.

From Oxtutzcab, Yucatan, Mexico. Seeds presented by Sr. Moises Vasquez Vega. Received May 29, 1922.

55468. *CARICA PAPAYA* L. Papayaceæ.

Papaya.

"The fruits are very large, weighing from 17 to 22 pounds." (*Vega.*)

For previous introduction, see S. P. I. No. 52620.

55469. *JACARATIA MEXICANA* A. DC. Papayaceæ.

A relative of the papaya (*Carica papaya* L.), introduced for breeding experiments.

"A tree with a smooth, tapering trunk and many slender branches. The leaves are palmately seven parted and the fruits, about 6 inches