

**52449. ALEURITES MOLUCCANA (L.) Willd. Euphorbiaceæ.***(A. triloba Forst.)***Lumbang.**

From Mayaguez, Porto Rico. Seeds presented by D. W. May, in charge, Agricultural Experiment Station. Received February 10, 1921.

"Individuals here eat these nuts to some extent, but occasionally they are made quite ill from them, owing to the stage of ripeness of the nut or to some peculiar characteristic of the person that eats them. If they are eaten unripe, they act as a strong purgative; if fully mature and roasted, they are doubtless, in most cases, harmless. From the general experience in Porto Rico, however, I would advise eating them, if at all, with caution." (*May.*)

"Lumbang, or candlenut, oil is used in soap making, and in the Philippine Islands the press cake is highly prized as a fertilizer." (*R. A. Young.*)

**52450. TELFAIRIA PEDATA (J. E. Smith) Hook. Cucurbitaceæ.**

From Nairobi, Kenia, British East Africa. Seeds presented by S. W. Eells, American consul, through Dr. H. L. Shantz, Physiologist in Charge of Plant Physiological and Fermentation Investigations, Bureau of Plant Industry. Received January 13, 1921.

"A perennial climber, indigenous to eastern Africa, Zanzibar, and Pemba, which grows very luxuriantly and prolifically in this colony. The kernels of the seeds are used by the natives, both as a foodstuff and as a source of edible oil.

"The following analysis showing the percentage of the constituents of the seeds has been published by Gilbert (see Sadebeck, *Die Kulturgewächse der Deutschen Kolonien und Ihre Erzeugnisse*, Jena, 1899, p. 245): Moisture, 6.45; ash, 2.04; oil, 36.02; protein, 19.63; woody fiber, 7.30; nitrogen-free extractive matter, 28.45.

"These seeds are flat, irregularly circular in shape, and about  $1\frac{1}{4}$  to  $1\frac{1}{2}$  inches in diameter. The single seeds average 4.9 grams in weight.

"The Imperial Institute reported as follows:

"'The seeds consist approximately of fibrous husk 11 per cent, shell 38 per cent, and kernel 51 per cent.'

"A previous investigator has recorded 7, 33, and 60 per cent of fibrous husk, shell, and kernel, respectively. The kernel yields 56.9 per cent of slightly reddish brown oil.

"The oil from seeds from Zanzibar gave the following analysis: Specific gravity at 15° C., 0.919; acid value, 2.6; saponification, 196; iodine value, 89.

"This is a nondrying oil and has a pleasant, slightly sweet taste. It would be suitable for soap manufacture, and also as an edible oil. The seed is used by Europeans in this colony both as a nut and as a flavoring for cakes.

"The reason that these seeds are not more used is due to the hardness of the shell and the difficulty of removing it, as well as to the intensely bitter, green skin which separates the kernel from the shell. If a method could be found of removing the tough fibrous husks and this bitter skin, it would appear that the seed would be of considerable commercial value, both for its edible oil and for the manufacture of soap, as well as for the resultant oil cake which would probably make a good cattle feed. It would be impossible, however, to use the cake after pressing the unhusked seeds on account of the skin mentioned above.

"A German syndicate of soap and candle manufacturers at Mannheim has investigated the possibilities of these seeds, but express the opinion that it would be inadvisable to place consignments of the seeds on the European market until a machine had been invented for rapidly and cheaply shelling them.