

THE KAPOK INDUSTRY IN THE PHILIPPINES

Islands Well Adapted to Production of Kapok on Commercial Scale—Comparative Tests Show High Quality of Kapok Raised Here—World's Demand for Kapok Increases—U. S. Buys over Eight Million Pesos Worth of It Each Year

Kapok—locally known as "bulak" in Tagalog, "doidol" in Visayan, and "Kapasanglay" in Ilocano—offers unusual possibilities as a commercial crop in the Philippines. The United States bought over eight and a half million pesos worth of kapok last year of which the Philippines supplied only ₱190,638 worth. Other countries which are also great users of kapok are Holland, England, Australia, France, Germany, Italy, Spain, and Japan. Of these countries, the United States and Japan are the principal consumers of Philippine kapok.

Uses of Kapok

For upholstery purposes, for which it is principally used, kapok is preferred to all other stuffing materials, due to its great capacity for filling and its great elasticity. It is more resilient and is lighter than any other filling material. Mattresses stuffed with kapok do not harden after long use, and are comparatively free from insects. For buoyant articles, such as life-saving appliances, kapok is now utilized in substitution for cork. The use of kapok has been recently introduced in the textile industries. Kapok yarns used for carpets, cloths, and in the lace industry are now on the market. It was recently found also that kapok can be used in the manufacture of felt hats and gun cotton.

By-Products Also Valuable

Besides kapok (the floss, which is by far the most important product), its seed and the bark, the gum and

the young leaves of the tree, also have important commercial uses. Oil can be extracted from the seed, more than 20 per cent of the weight of the seeds being oil. This oil, produced on a commercial scale in Holland and in France, is used for culinary and lubricating purposes, in the manufacture of soap, and also as an adulterant with other oils. The residue after extracting the oil, called press-cake, is used for cattle feed and

demand. With the spreading recognition of its unrivalled qualities as a filling material and its several important uses, the world's need for kapok is steadily increasing. Java, the greatest source of this product, is said to have now reached the limit of its capacity for kapok production, and new sources of kapok are being eagerly sought; inquiries are being made, especially from the United States, into the possibilities of a much greater supply of kapok from the Philippines.

Philippines' Share Negligible

The Philippines has an insignificant share of the present world trade in kapok, although conditions here are said to be as favorable to kapok culture as in Java. The reason for this is to be found in the practically neglected state of the kapok industry in the Philippines today. In most places, where kapok is found, the trees are simply growing wild, and no systematic effort has as yet been made to put the industry on a permanent commercial basis. While Java has given full attention to the cultivation of kapok since the middle of the last century, the Philippines has not shown any attempt to exploit the industry until very recent years, her first exportation of kapok taking place only after 1905. Most of the supply of local exporters is obtained from Dumaguete, Cebu, Iloilo, and the Province of Pangasinan.



(Photo by Bureau of Agriculture)

Kapok trees along the road side, San Juan de los Baños, Batangas, P. I.

fertilizer. The bark of the kapok tree contains a reddish fiber which is used for tanning leather, for dyeing cloth, and sometimes for tying purposes. The wood yields an almost opaque gum which has some medicinal value; and the young leaves, when ground into a paste, are also used for medicinal purposes.

Supply Short of Demand

The world's supply of kapok has always been insufficient to meet the

(Continued on next page)

THE KAPOK INDUSTRY IN THE PHILIPPINES

(Continued from page 4)

Favorable Conditions

The fact that kapok trees are found growing wild in practically every part of the Philippines is ample proof of the adaptability of local soil and climate conditions to kapok culture. However, it is said that the best regions for the cultivation of kapok are found south of Manila. The highest quality of Philippine kapok is produced in the Visayas, while it is said that Mindanao could supply all the kapok needed by the United States if its vast land areas available for kapok were planted.

Philippine Kapok Same as Java's

Philippine kapok is not intrinsically different from Java kapok, which is now considered the best in the world's market. Both are the product of the same tree known as *Ceiba pentandra*, L. (*Kriodendron unguiculatum*, D. C.) Comparative tests made by the Bureau of Standards, Washington, D. C., showed that Philippine kapok has longer staple length and is compressible to a greater degree than the Java product, although the latter is slightly more resilient than the former. The best-quality kapok it is said, contains no foreign matter (dirt, seeds, etc.) is white in color, has a long staple and is buoyant and resilient. The same tests revealed that the highest-grade Philippine kapok could be grown in Guajubagan, Oriental Negros. It appears that whatever may be the alleged inferiority of local kapok at present is due to the lack of proper culture and preparation, and the faulty grading and standardization of the product on the part of Philippine producers and exporters.

Cultivation

The planting of kapok seeds or cuttings could be done in the simplest way almost anywhere in the Philippines. In fact, there is hardly any important occupation that requires less amount of work and energy than that of kapok culture. However, due to the extreme ease with which the plants thrive, there is the tendency of local producers to leave the growing trees unweeded for, which is a bad practice. For the information of Philippine

planters, the following facts about kapok culture in Java are given here:

"In Java, kapok is propagated much more often by seeds than by cuttings, as the former gives robust and better plants, while the latter is susceptible to the attack of termites. The former method is always followed on the big plantations. There are two varieties of kapok produced—the big and the small, which differ only in the amount of the pods they yield, the quality of floss being the same in both varieties. The seeds are first planted in seedbeds and then transplanted when they attain a height of one meter. The seedlings of the big variety are planted (between rows of coffee plants) about 72 feet apart, while those of the small variety (between rows of cacao plants) about 24 feet apart. The trees are never topped, contrary to the common practice in the Philippines. They are not fertilized, but weeding around the young trees is constantly done."

Cleaning the Fiber

The pods must be picked from the trees as they are ripe, and must never be left to pop open on the trees and fall on the ground as is usually done here, causing the local kapok to deteriorate in quality. As soon as the pods are picked, they must be spread out on clean drying platforms so constructed as to prevent the pods or the down from falling or being blown away. These platforms must be arranged so as to be covered quickly with some kind of roofing to keep off rain or heavy dew. As the pods dry out in the sun, they pop open, and the down, together with the seeds, is then separated from the pod. The preliminary process of separating the fiber or floss from foreign matter may be done simply by hand, or may consist in stirring the material in a container so that the seeds and heavy trash will fall to the bottom, while the floss remains on top. The final cleaning of the floss may be done by running it through simple mechanical devices. Cleaning the fiber on big scale, however, is done best by feeding it into the regular machines made for that purpose. The Bley machine which may be obtained from Lindeteves Stokvis, Batavia, for about ₱320, and the Lienan machine, which

is much simpler and less expensive, could be profitably employed by Philippine producers.

Preparation for Export

The principal work in exporting kapok consists of removing the seeds and other foreign matter from the floss. In the Philippines, this is still done by hand or by simple and crude hand apparatus. In this cleaning process, when done on a big scale, modern and economical machinery should be employed, in order to obtain the best results. The fiber, finally cleaned, must then be graded according to the degree of whiteness and the amount of foreign matter present. After that, it is packed in uniform standard bales that are covered with fabric, usually of jute or other gunny material, and bound with wire, rattan or other suitable binder.

One of the serious needs of the Philippine kapok trade at present is a good grade control to classify the kapok exported as to the region or district of its origin. Due to the position of the Archipelago, Philippine kapok grows under widely varying climatic conditions, thus making it also vary widely in quality. Uniform grading and standardization in this regard, as well as more extensive cultivation of the plants and the proper preparation of the fiber, would place Philippine kapok in a position to face competition in the world's markets.

MANILA RECEIVES LESS SHIPMENTS

Sugar, Abaca, and Copra Receipts Decrease

Shipments of abaca, sugar, and copra received in Manila by water from the various ports of the Islands during the first nine months of the current year were much less in quantity than for the same period last year, according to figures compiled by the Bureau of Commerce and Industry. This decrease has been due mainly to the increasing direct shipments of export products from other Philippine ports.

(Continued on next page)