The life of fishing nets, sails and lines can be greatly prolonged by tanning. This article explains a simple way of carrying out this process, using a tanning solution made from the bark of the mangrove tree, found on most islands of the South Pacific.

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Most of the fishing nets used in the South Pacific islands are made of vegetable fibres, either produced from local plants or bought in stores, either in the form of ready-made cotton netting or of cotton twine which is knitted into a net.

For the most part these nets are small, although some fair-sized ones are made. Generally they are not tanned, and quite often they are in bad condition. This is of course understandable in places where no materials are available for preserving the yarn, but tanbark from mangrove trees is available in most of the islands, at least in the western half of the Pacific. In the tanning process the fibres are impregnated with tannin, which prevents bacteria from damaging them.

Tanning material being so readily available, I suppose that lack of knowledge is responsible for the fact that most nets are allowed to deteriorate. The need for an article on the subject was impressed upon me when a fisherman, using unprocessed cotton nets, asked me how he could make them last longer, as he had found that they became rotten after five months' use. When I told him to tan them, he said he had heard of the process and would like to order cutch from Europe. All the time, however, his nets were hanging from a mangrove tree (Rhizophora mucronata in this case) whose bark could provide good tanning material. Indeed, I satisfactorily tanned a piece of netting with the bark of that very tree.

The tannin content of the bark varies with the different species of mangrove, and also with the locality in which they grow. The best grades of tanbark used in Indonesia for tanning nets and lines contain 28.7% and 29% tannin, coming respectively from Rhizophora mucronata and Ceriops condelleana. It seems that the first species has a lower tannin content in New Caledonia.

The best bark is taken from branches 3-6" in diameter. After drying in the sun, it can be kept for a long period.

**The Tanning Process**

The tanning process itself is simple. First of all, the tanbark is chopped into small pieces (about 3") and put to soak for 24 hours in fresh water, in the proportion of one volume of bark to three volumes of water.

The second step consists of boiling the bark in the water for one and a half hours, after which the tanning solution is ready. Meanwhile the net, sail or lines to be tanned must be thoroughly rinsed, preferably in fresh water, in order to remove the yarn finishing (or the seizing in the case of sails) from new materials, or the dirt from old.

The items to be tanned must be clean and dry when they are put in the tanning solution, where they should be left for twelve hours before being taken out and dried. They must then be dipped again in the solution for twelve hours.

A net that is used every day for a few hours should be tanned every month. If it is in the water six hours or more a day, then tan it every fortnight.

The tanning solution can be used several times, more water and tanbark being added every time, but it is best to prepare only enough for one's immediate needs. A new net tanned for the first time turns brown. After being tanned several times it becomes dark brown.

If the tannin content of the bark used is low, the proportion of bark to water used in preparing the tanning solution must be increased. A tanning solution can be prepared merely by soaking the bark in cold water for fourteen days. However, in my experience, boiling the bark has proved the best method.

The nets should always be washed thoroughly, preferably in clear fresh water, and dried in the shade before storage. Fish slime and seaweeds clinging to the nets after use are the chief enemies of all natural fibres. These should be removed by washing and the nets stored hanging loosely in a well-ventilated shed. Such precautions can help fishermen to derive the full benefit from the tanning process described above.

With proper care, tanning can triple the life of nets and lines.