

Peeling:

Peeling or debarking: It is a process of removing the bark by a special tool from the felled trees.

How the process of tree peeling is done?

- 1- This process is done inside or outside the forest after transferring it to the collecting area.
- 2- It is stripped from forest products such as poles, piles and some pulpwood.
- 3- The peeling process should be done quickly before wood sap dries, because drought leads to difficulty in removing the bark and also changes the color of the poles, and this not desirable commercially.

The best time for peeling the logs manually: -

Most of the operations of **manual peeling** are conducted during the growing season, **especially in spring and in the season of early summer**, during the season of the validity of sap wood, where it is easy at this time to separate the bark of the wood, and the wood which is peeled in this season is called by **the wood Sap-peeled**.

Important tool for peeling the bark: -

Spud: - is a tool used to remove the bark from the trees.

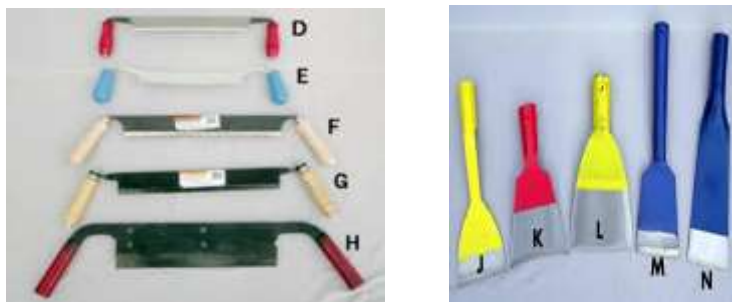


Fig. 1: Spud

Peeling technique: -

- 1- The bark is severed along the upper side of the tree with a power saw or axe, after which a hand **spud** is inserted into the cut and forced beneath the bark.
- 2- As the spud is pushed under and raised, the bark comes free, generally remaining intact in large segments.
- 3- In some cold regions, operations of felling might be carried out in the winter and then the logs are skidding to the roadside or assembling yards, and in early spring when freezing is gone the peeling operations are conducted and the bark will be removed easily as if the tree has just felled now.
- 4- Peeling the desired volume of timber in the spring makes it possible to provide the peeled logs in all seasons because these logs are less prone to fungi and insect injuries.

Chemical peeling

A procedure for peeling (debarking) trees by the aid of chemicals was developed and patented in Ontario in 1942.

The chemical used is sodium arsenite, a dye, which makes the treated girdle visible, and an animal repellent are added to the sodium arsenite solution. The chemical treatment of trees for bark removal consist of removing with a peeling spud or a special Girdling tool a band of bark approximately 4 inch wide completely around the tree during the growing or heavy sap-flow season. The sodium arsenite solution is painted on the exposed wood and rapidly kills the cambium .Three to six month later, depending upon the tree species, the bark becomes permanently loosened and is readily pulled off. The main advantage of chemical debarking is that it extends the bark peeling season to any time of year.

Mechanical debarking

There are various types of mechanical debarking heads on the market. They all work on the principle of grooved rollers rotating the stem under pressure, which causes the bark to be stripped off as the stem passes through the rollers. Cutting knives shear off the branches in front of the rollers.



Fig. 2: Mechanical debarking

A hydraulic debarker is a machine removing bark from wooden logs by the use of water under a pressure of 100 psia. (6.8 atmospheres) or greater.

Hydraulic debarking can reduce soil and rock content of bark, but may increase the water content.

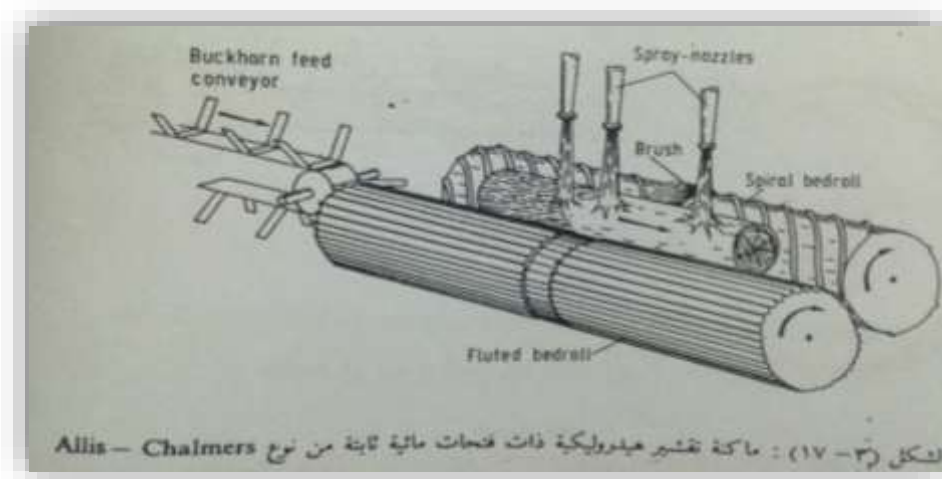


Fig. 3: Hydraulic debarking