

fought and extinguished on both Crown and private lands, and it is interesting to note that out of this large area only about 20,000 acres of timber lands were destroyed.

During the past season the department has employed crews of men to extinguish over 150 fires and in addition about three hundred small fires were extinguished by the regular patrolmen and rangers without extra men before they had time to spread, and still other fires were put out by private individuals and lumber companies.

Permanent Improvements.

Two look-out towers are equipped and were used last season with good results, several fires having been located from them.

Tool caches are maintained at various points, and all rangers are supplied with fire fighting equipment. Ranger cabins have been built at many isolated points and stocked with fire fighting tools and emergency rations. The fire protective organization in New Brunswick has developed wonderfully during the last two years and plans are being made for much further improvement in the coming year.

The Pulping of Jack Pine

Some years ago the Wayagamack Pulp & Paper Company Limited, Three Rivers, Que., was equipped with complete apparatus for the purpose of experimental pulping of all the different species of wood.

Experiments have been systematically carried on for a number of years with the object of discovering what different species of wood were suitable for the different qualities of pulp required for the manufacture of all kinds of paper.

In the provinces of Ontario and Quebec there are enormous tracts of land timbered almost exclusively with what is known as Jack Pine, also called Bank-sian Pine, or Cypress.

For this reason, it was important to ascertain if Jack Pine could be used for the manufacture of sulfite pulp and ground wood, in spite of all the prejudice against its use for this purpose.

A preliminary examination of Jack Pine, with regard to its resin contents seemed to indicate that the resin was not present in quantities which would prohibit its use for the manufacture of sulfite pulp or ground wood, although Jack Pine seems to have had to carry the blame for all the pitch troubles which all paper mills suffer from, more or less.

If Jack Pine is cooked in a mixture with other wood, trouble is quite likely to result, because Jack Pine apparently requires a stronger acid and a longer cooking time than other species of wood.

If, however, Jack Pine is cooked alone, the company's experiments, as well as those reported below, would indicate that Jack Pine will produce a sulfite pulp which is in all respects equal to Spruce Pulp. The fibre from Jack Pine was found to be about .25 mm. longer than Spruce fibre, which will make it particularly suitable for newsprint.

Some years ago, by special arrangement with Geo. McDougall, of the Jacques-Cartier Pulp & Paper Co., of Pont Rouge, the Wayagamack Pulp & Paper Company Limited, shipped a quantity of Jack Pine to be pulped into ground wood at the Pont Rouge plant.

The pulp obtained from this wood proved to be as good as, if not better than, anything that could be purchased on the market.

The Wayagamack Pulp & Paper Company would like to call the attention of the trade to the fact that from all the experiments made, there is no evidence of excessive pitch which could be traced to the use of Jack Pine.

By arrangement with Messrs. Arthur D. Little Inc., of Cambridge, Mass., sulfite cooking experiments were performed at their laboratory and the Wayagamack Pulp & Paper Company have pleasure in publishing the principal results with the consent of the Arthur D. Little Inc., in the hope that the facts will be of interest to the industry.