



A researcher examines residue wood chips such as are produced in most mills. These residues could be used in biomass gasification to produce fuel such as methane.

woods like red maple, white birch and beech. These species represent a valuable, largely untapped resource. They make up substantial portions of the eastern Canadian mixed forest stands which predominate in southern locations close to established transportation and markets. Forintek has studied the use of these species in the manufacture of waferboard. These intolerant hardwoods can be used in combination with poplar (the conventional raw material for waferboard manufacture) in proportions up to 60 per cent without any adverse effects on processing conditions or product properties.

Poplar has also been studied and evaluated at Forintek, particularly the new fast-growing clones developed in genetic and silviculture research programs of the Ontario Ministry of Natural Resources.

Processing innovation

New and improved manufacturing processes developed at Forintek result in greater productivity and consequently in better resource utilization. It has, for instance, pioneered a novel system for cutting lumber with a knife blade rather than a saw. The lumber slicer, as it is called, is operated with the application of lateral pressure on the wood opposite the knife allowing the knife to slice the wood without splitting or bending. This system has a number of advantages, the most important being the elimination of

sawdust. This loss due to sawdust amounts to between 3 and 10 per cent of lumber production. The lumber slicer is currently undergoing commercial trials.

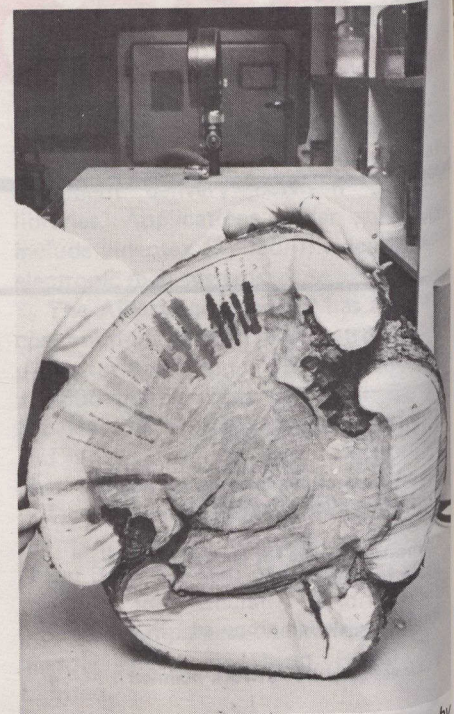
Forintek has played an active role in the establishment of particleboard and waferboard industry by developing new or improved manufacturing processes and in product testing and evaluation.

Wood-based energy

The company is also studying a variety of processes for converting wood to gas and liquid fuels; in order to make wood-based energy more efficient and economical.

Company researchers are working on techniques that produce low and medium BTU gas which can also be used as a synthesis gas for the production of methanol. In Forintek's microbiology and chemistry sections, researchers are investigating conversion of wood cellulose to glucose for fermentation to ethyl alcohol.

The product testing and evaluation services provided by Forintek are vital in securing a place in domestic and international markets for new wood products. Forintek carries out standard testing procedures for manufacturers and for codes and standards agencies. These testing services are valuable to countries wishing to export their manufactured wood products. Forintek staff are members of Canadian, American and other national and international technical committees of product standards agencies helping to set internationally accepted

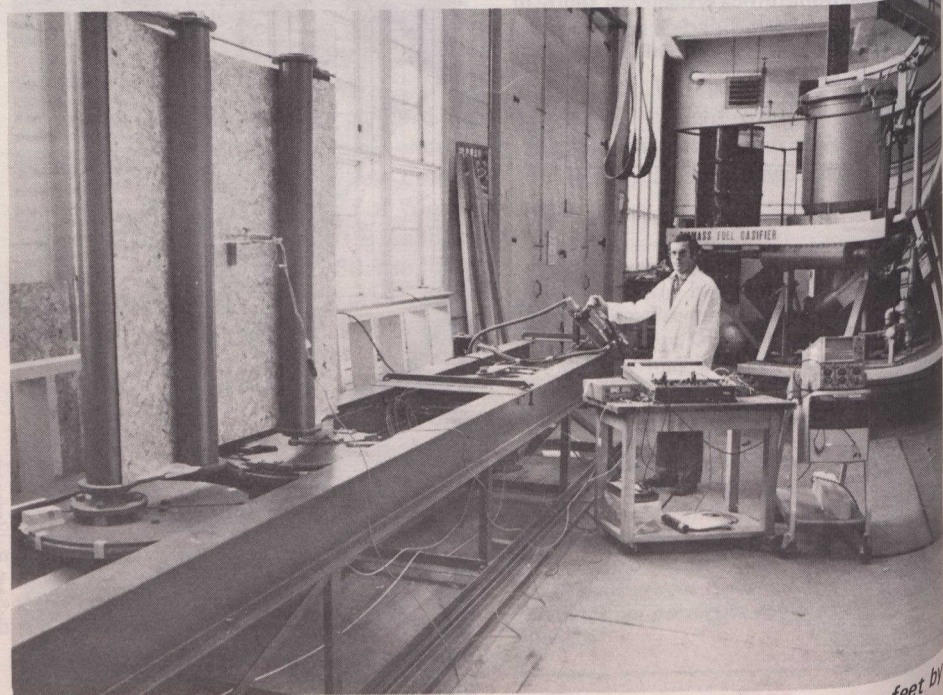


A blazed tree is dated by worker by counting its rings.

standards of performance for wood products.

For further information concerning services offered by Forintek, contact: Peter B. Macfarlane, President, Forintek Canada Corporation, 6620 N.W. Marine Drive, Vancouver, British Columbia, Canada, V6T 1X2.

(By Jean Bridge, Canada Commerce, February 1981.)



A large-scale bending machine, that can bend pieces of wood measuring four feet by eight feet, is used to test a piece of particle board.