

Research undertaken falls under the following broad classifications:-

TIMBER ENGINEERING - determination of the mechanical and physical properties of Canadian woods; calculation of basic working stresses; engineered use of wood products.

PLYWOOD - various factors affecting manufacture, including peeling, drying and gluing; determination of mechanical properties; adhesives for the manufacture of plywood and glued-laminated timbers.

WOOD PRESERVATION - improvement of decay-resistant properties of wood with preservatives; studies of the mechanism of movement of liquids into wood; evaluation of preservatives; development of treating schedules.

LUMBER PRODUCTION ENGINEERING - studies on the engineering aspects of sawmill operation; effect of variables and modification of saw design on power requirements, kerf, and efficiency of sawing; research into the theory and techniques of lumber seasoning.

INDUSTRIAL UTILIZATION - studies on the harvesting and manufacture of timber; research into economic use of wood residue; conducting special courses on improved sawmill practice, log-quality evaluation; seasoning of lumber; studies on improved use practices as they relate to the manufacture of forest products.

WOOD CHEMISTRY - determination of the chemical properties of Canadian woods; dimensional stabilization of wood; evaluation of mill residues for production in structural boards and other forms of use.

CONTAINERS - factors involved in the design and use of boxes, crates and other containers; improvements in standards of packing.

PAINTS AND COATINGS - investigations into the various factors affecting the painting of wood and the general performance of paints and natural finishes on wood under a variety of conditions.

FIRE RETARDANTS - improving the fire-retardant properties of wood through treatments and coatings.

WOOD PATHOLOGY - investigations of wood fungi, their effect on the properties of wood, and means of combating wood-destroying fungi.

WOOD ANATOMY - effect of anatomical structure on wood properties and behaviour, microscopic identification of wood and wood structure.

MICROBIOLOGY - possibilities of using wood waste through the medium of microbial action.

TIMBER PHYSICS - applications of the principles and techniques of modern physics to forest-products research; development of non-destructive methods of testing wood products; investigation of dielectric properties of wood and glues; the application of dielectric heating to the woodworking industries.

The Department's forest-products research results are available to industry through publications, technical courses, and technical assistance associated with the use of wood.

The Department supplies extensive technical data used in the development of national and international specifications. It is represented on the Associate and Technical Committees of the National Building Code, and the Sectional Specification Committees of the Canadian Standards Association for items such as engineered design