

Recent Papers

The following is an extract from a list of papers published by the Forest Products Research Laboratory which are available in limited quantities as reprints or Laboratory reports and which may be of interest to readers of this journal.

166PP — TWO-STAGE WINDTHROW IN SITKA SPRUCE,
E. W. J. Phillips and D. G. Patterson (reprinted from *Quarterly Journal of Forestry*, October, 1965).

Investigation of brittle windthrow fractures following an easterly gale in a stand of Sitka spruce growing on a Devonshire hillside showed that the stems had broken off at compression failures induced by a westerly gale two years earlier, following the cutting of a roadway which increased the exposure. The "first stage" damage had become protected by wound tissue and rapidly developed compression wood giving rise to well-marked stem swellings which presumably saved some stems from second and final damage when the rest were broken. The term "compression swelling" is suggested for this defect.

189B—IMPROVING BRITAIN'S SOFTWOODS, J. D. Brazier
(reprinted from *The Timber Trades Journal Supplement*, April, 1965).

At a time when there is an increasing demand for basic materials to be produced to a standard specification, the inherent variability in wood adds to the difficulties of advancing timber utilisation. This paper describes work in progress by the Forestry Commission and the Forests Products Research Laboratory to reduce variability and improve the quality and quantity of home-grown softwoods.

1815PL—PREVENTION OF BLUE-STAIN IN UNPEELED SCOTS
PINE LOGS, J. G. Savory, R. G. Pawsey and J. S. Lawrence
(reprinted from *Forestry*, May, 1965).

Blue-stain causes degrade of saw logs during the inevitable delays between felling and conversion. Chemicals of potential value in blue-stain control have been tested in the laboratory and trials have been made of their use on unpeeled logs stored in the forest.

118—A COMPARISON OF READINGS OF A COMMERCIAL
RESISTANCE-TYPE MOISTURE METER AND MOISTURE
CONTENTS DETERMINED BY OVEN-DRYING, D. D.
Johnston and R. H. Wynands (reprinted from *Wood*, November,
1958).

The electrical method of determining the moisture content of timber, based on the fact that the resistance of wood increases as it

becomes drier, has obvious advantages over the oven-drying method. There are, however, several possible sources of error in the electrical method and these are enumerated. There is appreciable variation in the resistance of timber at a given moisture content and this imposes a limit on the accuracy obtainable with a resistance-type moisture meter; test results are given to illustrate this point.

167c—THE EFFECT OF DRYING AND SUBSEQUENT RE-WETTING ON THE STRENGTH PROPERTIES OF WOOD, S. A. Covington (reprinted from the *Journal of The Institute of Wood Science*, October, 1965).

Strength values for timber in the green condition are sometimes derived from tests on over-dry material which is simply re-wetted until its moisture content is raised above the fibre-saturation point. It is assumed that this has no effect on the properties of the timber. Tests made on matched green and re-wetted material have shown, however, that re-wetting reduced most of the strength properties.

188c—RESEARCH IN SAWMILLING, W. T. Curry (reprinted from *The Timber Trades Journal Supplement*, April 1965).

The extensive softwood plantations that have been established by the Forestry Commission and private woodland owners since 1919 are now beginning to yield stems of sawlog size. The conversion of this substantial output of home-grown softwood will present problems to the sawmilling industry. Research work at present in hand at the Forest Products Research Laboratory which will provide information which should assist the industry in deciding what is the best type and size of mill for conditions in Britain and also in developing new techniques.

Copies can be obtained, so far as stocks permit, on application to The Director, Forest Products Research Laboratory, Princes Risborough, Aylesbury, Bucks. It is sufficient to quote the reference number preceding each title.