

Recent publications by Forest Product Research Laboratory, Princes Risborough

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89P *Timb. Trades J.* 1968, 265, (4778), Suppl., 27-29.

Trials on home-grown timbers for wood wool/cement building slabs.

L. C. Pinion

This paper gives the results of a study on the suitability of home-grown softwoods and hardwoods for the production of wood wool/cement building slabs.

Misc 235

August 1964

Grading of British round timbers—*Log grades for softwoods*.
Anon.

The grading rules make provision for three log grades. The more important factors affecting out-turn, namely top diameter and sweep and also the characteristics influencing its quality, knots, knot whorls, clusters, scars and decay, are considered. Slopes of grain and rate of

growth have not been taken into account. Knots are permitted in each grade to a maximum diameter according to a range of log diameters.

Misc 264 September 1967
Grading of British round timbers—*Log grades for hardwoods*.
Anon.

The grading rules and definitions for grading round hardwoods are listed together with a table of grades applicable to logs with a minimum top diameter of 8 inches under bark.

T.N.27 Technical Note No. 27, May 1968
Sawn softwood grading system.
Anon.

The grading rules which concern users of sawn material in the United Kingdom are discussed and compared with those of other softwood producing countries, namely Norway, Finland, Sweden, Poland, USSR, East Canada, Brazil and the Pacific Coast of North America.

99 SC *Wood*, 1967, 32, (9), 35-37, (10), 37-10; (11), 29-31.
The remedial treatment of telephone and electric transmission poles.
Parts I to III

D. N. Smith and R. Cockcroft

The first part of this paper deals with the cause of external decay in creosoted poles and its remedial treatment by creosote emulsion type bandage. The second part is concerned with internal decay and its remedial treatment by injection of a preservative paste based on sodium fluoride, as operated by the Cobra Co.

96 SC *Electl. Rev.*, 1967, 181, (20), 726-728.
Remedial treatment of wood poles for overhead lines.
D. N. Smith and R. Cockcroft

This paper is a summary of 99 SC listed above.

92 T *Building*, 1968, 214, (6516), 135-136.
The moisture content of window joinery in service.
C. H. Tack

The results of a survey carried out to determine the moisture contents of over 137 windows point to the existence of design faults in modern window joinery. Another significant conclusion reached is that internal condensation may play a larger part in the wetting of window joinery than has been previously recognised.

86 W *J. Instn. Munic. Engrs.*, 1968, 95, (7), 212-215.
The inspection and treatment of houses for damage by wood-boring insects.

M. G. White

This article describes how to survey the timbers of a house, and how to recognise timber borer attack and identify the types requiring treatment. Suitable insecticide formulations and methods of application are described.

T.N. 23

Technical Note No. 23, June 1967.

The preservation of farm timbers.

Anon.

This note shows how effective preservative treatment ensures that timber on the farm will last indefinitely with little or no maintenance and that the cost of preservative treatment is comparatively small. Types of preservative, preparation of timber, treatment and choice of treatment are considered.

T.N. 24

Technical Note No. 24, August 1967.

Preservative treatments for external joinery timber.

Anon.

A description is given of the various preservative treatments for new external joinery which are considered to be satisfactory in this country, namely vacuum pressure impregnation, vacuum impregnation diffusion treatment and immersion treatment.

T.N. 28

Technical Note No. 28, January 1968.

Manitenance and repair of window joinery.

Anon.

This note states the causes of decay in window joinery and the moisture penetration which leads to decay. An account is given of the remedial measures which may be followed by the householder to prevent moisture penetration and to deal with the early stages of decay. Measures for the repair of advanced decay are also given.

T.N. 29

Technical Note No. 29, May 1968.

Ensuring good service life for window joinery.

Anon.

The effect of design factors and choice of timber species on the avoidance of decay in new window joinery are discussed.

88 P

Q. Jl For., 1968, 62, (2), 137-144.

Pulping in Britain.

D. F. Packman

Manufacture of paper and board, though a major industry in Britain, is heavily dependent upon imported wood pulp for its raw material. Development of our home-based pulping industry is desirable, therefore, and the large predicted increase in softwood production from our plantation forest may well provide the means.

The Forest Products Research Laboratory has examined the pulping properties of our softwood species and the effects of wide variation in wood characteristics on pulp quality in the context of the various pulping processes which might be used.

102 P *Paper Technol.*, 1967, 8, (4), 339-340.
Pulping of British-grown softwoods.

D. F. Packman

Chip-refiner mechanical pulp was made in a laboratory scale from British-grown Sitka spruce, Scots pine, Douglas fir, grand fir, western hemlock and Japanese larch. Pulp suitable for the manufacture of high grade folding boxboard was produced from mixtures of these species: it was shown that considerable variation in composition of the mixture could be tolerated without substantial loss of quality in the product.

T.N. 32 *Technical Note No 32*, May 1968.

A small electrically-heated timber dryer.

Anon.

A description is given of this simple and cheaply constructed dryer which has been designed primarily to meet the needs of firms who use only comparatively small quantities of timber, have no existing steam supply from which they could operate steam-heated kilns, but require that the timber should be dried to a moisture content of 10-12 per cent for use in heated interior environments

T.N. 25 *Technical Note No. 25*, May 1968.

Stress grading of timber.

W. T. Curry

Although recent research has enabled a number of different machines to be constructed to stress-grade timber automatically, it seems that some time will elapse before these become generally available and until then stress grading will have to be done by visual inspection. A description is given of the principal visual characteristics which are known to influence the strength of timber.

T.N. 26, *Technical Note No. 26*, May 1968.

Stress grading machines.

W. T. Curry

Stress grading machines not only grade timber more rapidly than by visual methods, they also provide a more accurate assessment of performance because they test the inherent mechanical properties of the timber rather than relying on visual defects alone. Grading machines have been developed in the United States and in Australia and a brief description of these is given.

95 B *Forestry*, 1967, 40, (2), 117-128.

Timber improvement—a study of the variation in wood characteristics in young Sitka spruce..

J. D. Brazier

As part of a programme aimed at improving Sitka spruce timber, a study has been made of the variation in some wood characteristics when trees of outstanding form and vigour are selected. The results of this study are given in this paper.

80 B *Proc. Linn. Soc. Lond.*, 1968, 179, (2), 271-274.

The contribution of wood anatomy to taxonomy.

J. D. Brazier

This paper considers some of the factors which affect the use of wood structure in taxonomy and some examples are given to illustrate its use.

97 D

Nature 1967, 216 (5117) 827-828

Recording the initiation and development of failure in timber.

J. M. Dinwoodie

A description is given of a method which is currently being used to study the changes in structure which occur in timber during compression stressing and failure.

85 P

J. Inst. Wood Sci., 1968, 4, (2), 64-66.

A further contribution to the comparison of X-ray and beta-ray techniques for measuring wood density.

E. W. J. Phillips

A description is given of the factors which need to be considered when comparing the X-ray and beta-ray techniques for measuring wood density, namely specimen thickness, speed of operation and quality of record.

90 M

Timb. Trades J. Ann., 1968, S/1-S/3, S/5.

Production rates of log bandsaws for small softwood logs.

An investigation to compare the production rates of two types of log bandsaw is described, and data for three types of circular log saw are given for comparison. Computer analysis of time study results is discussed, and production rate curves from hand and computer analyses are given to illustrate the advantage of the latter method. Based on the computer calculation, some conclusions about the relative production rates of the different machines are given.

T.N. 30

Technical Note No. 30, May 1968.

The maintenance of saws for cutting wood.

Anon.

This note briefly describes the various factors that are inherent in the maintenance of circular and wide band saws.

82 G

J. Inst. Wood Sci., 1968, 4 (2), 3-18.

An appraisal of some aspects of timber research and their application.

E. J. Gibson

This paper considers the present state of knowledge about the structure and composition of wood, how this affects its behaviour and the manner in which it is currently processed and used.

103 OX

Advm. Sci., Lond., 1967, (9), 77-82.

A scientific policy for the better use of wood.

T. A. Oxley

This paper considers the long-term future use of wood and wood products. The deficiencies of wood which scientific research may be able to ameliorate, namely waste, variability, durability and protection, are discussed.