

IN NEW ZEALAND CONTEMPORARIES.

NEW ZEALAND JOURNAL OF SCIENCE AND TECHNOLOGY.

TESTS WITH TIMBER PRESERVATIVES IN NEW ZEALAND. J. M. Kelsey, Vol. 27B, No. 6, May, 1946.

Summary: Results of tests with three water-soluble and three oil-soluble timber preservatives are recorded. Tests include effects in retarding oviposition and larva survival using *Anobium punctatum* as the test insect, and effects of various brush coatings on survival of *Anobium* larvae and *Calotermes brouni* in already infested timber.

Various recommendations are made and an appendix gives alternate formulæ and service records.

Recommendations: Preparations such as kerosene, kerosene-turpentine, paradichlorobenzene and orthodichlorobenzene, while giving good control of insects already present in timber, are unlikely to prevent future infestation of the treated wood and their use should be discontinued. In addition, the cost of the more permanent types of preservatives is little more than for the former types and the trouble involved in their application is the same in both cases.

Again, none of the water-soluble preservatives act as repellents during oviposition by *Anobium* beetles, whereas all the oil-soluble preservatives prevented oviposition by *Anobium* adults and also were toxic to the beetles. Results of brush treatments with three oil-soluble preservatives are all satisfactory for both *Anobium* and *Calotermes brouni*. In general it is recommended that one liberal brush coating should be applied for each $\frac{1}{4}$ inch in thickness of sapwood timber.

A VARIATION OF THE TERMITE *COPTOTERMES LACTEUS* FROGG. FROM NEW ZEALAND. J. M. Kelsey, Vol. 27B, No. 6, May, 1946.

Summary: A distinct variation of the termite *Coptotermes lacteus* is described from material collected in Auckland during 1941-43. Though it has not been recorded from Australia, it is considered to be native to that country and has been accidentally introduced into New Zealand in power poles or sleepers.

INSECTS ATTACKING MILLED TIMBER, POLES AND POSTS IN NEW ZEALAND. J. M. Kelsey, Vol. 28B, No. 2, September, 1946.

Summary: This paper deals with rapid field methods for identifying the commoner insects found damaging timber; no special apparatus is required. It is written with the object of assisting property inspectors and those interested in borer-eradication. Descriptions of the methods of tunnelling, as well as of the insects themselves, enable one to determine the origin of the infestations even in the absence of live insects. A section on tested timber preservatives is included with notes on the best time of the year to treat infested wood.

A PRELIMINARY REPORT ON TIMBER PRESERVATION WITH "WOLMAN TANALITH" IN NEW ZEALAND. J. M. Kelsey, Vol. 28B, No. 3, November, 1946.

Summary: This report gives results of tests to determine whether *Pinus radiata* pressure-treated when green to give an average retention of dry salt of 0.25 lb. per cubic foot of timber would be attacked by *Anobium punctatum* de Geer. Overseas service records are given, and recommendations for further work are made.

A PRELIMINARY REPORT ON TIMBER PRESERVATION WITH "CELCURE" FOR NEW ZEALAND-GROWN *PINUS RADIATA*. J. M. Kelsey, Vol. 28B, No. 3, November, 1946.

Summary: Results are given of experiments with Celcurized *Pinus radiata* that had been pressure-treated six years previously. *Anobium* larvae transferred

to the treated wood were able to survive for some months ; larvae emerging from eggs laid on the Celcure blocks were all dead after three months. Overseas service records are given and recommendations are made.

DAMPNESS AND MOULD IN MODERN HOUSES. L. Bastings, Vol. 28B, No. 4, January, 1947.

Summary : The occurrence of mould on the ceilings and walls of modern houses is due to the prevalence of high humidity indoors. This high humidity is shown to be caused mainly by insufficient insulation in the walls and ceilings of the houses, and by inadequate natural ventilation of rooms.

Methods are developed for estimating the extent of this deficiency in these two respects in any given room, and suggestions are offered as to how these defects may reasonably and economically be overcome, both in new houses and also in those already erected.

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THE USE OF SAWDUST-CEMENT FOR FLOORS. J. L. Manders, Vol. XXX, No. 2, February, 1947.

This report reviews some of the literature on cement-sawdust floors, sets out the properties of the material and gives information on its faults and how they may be overcome to give satisfactory floors for light duty. As far as is known the only sawdust that has been used for these floors in New Zealand is *Pinus radiata*. It is said to be satisfactory but no information is available on subsequent behaviour. The report concludes that systematic investigation on cement-sawdust floors should be made in New Zealand.

N.Z. JOURNAL OF AGRICULTURE

PLANTING ROUND THE HOMESTEAD. M. Sutherland, Vol. 74, No. 3, March, 1947.

This and the three articles abstracted below form a series on the principles, planning and establishment of shelter and amenity planting in the environs of farm homesteads. The necessity for careful planning visualizing the future development of planting is stressed and the following principles laid down :—

- (1) Shelter from the wind must be provided promptly and be of rapid growth.
- (2) The most suitable types of shelter should be chosen—high shelter or hedge shelter.
- (3) Only species suitable for the purpose and for the locality should be planted.
- (4) Shelter growth must be placed to the best advantage for maximum protection, and the homestead shelter should be planned to form a part of the general arrangement of the farm buildings, garden and home paddocks, and to allow for future expansion.
- (5) Consideration must be given to fencing requirements and to the maintenance, trimming and topping of shelter growth.

High and low shelter, and combinations of the two are discussed ; also selection of species and species mixtures and orientation of shelter belts and hedges.

A WORKING PLAN FOR HOMESTEAD SHELTER. M. Sutherland, Vol. 74, No. 6, June, 1947.

In this article planning is treated in greater detail, and, to demonstrate its application for shelter planting around small homesteads, two hypothetical cases are considered. Shelter requirements in the immediate vicinity of the house, for driveway and outbuildings, and at greater distances on the farm are discussed, and species suggested.

The order or priority and stages of development of the plans are considered, and economy resulting from such forward planning stressed. Reference is made to a farm homestead where a similar programme has been followed, the good and bad features being discussed.

THE PLANTING OF HOMESTEAD SHELTER. M. Sutherland, Vol. 75, No. 2, August, 1947.

Planting, more particularly of farm shelter belts and wood lots, is discussed. The necessity for secure fencing at an adequate distance from the trees; preparation of the land, including cultivation and retention of protective cover; layout of an area and planting technique; optimum planting seasons in various districts and on different sites; procurement of planting stock including the simpler nursery operations; handling of planting stock; and replacement of failures are all considered in some detail.

RAPID SHELTER FROM MINOR SPECIES OF TREES. M. Sutherland, Vol. 75, No. 4, October, 1947.

In this article Miss Sutherland considers minor indigenous and exotic species which may be used for shelter belts and hedges of medium height, either as permanent protection in themselves or temporarily as quickly growing nurses for slower growing more permanent shelter. The methods of establishment and characteristics of the following are discussed:—N.Z. flax (*Phormium tenax*), N.Z. and Tasmanian ngaio (*Myoporum laetum* and *M. insulare*), pampas grass (*Cortaderia selloana*), small-leaved bamboo (*Arundinaria sperma*) and tree lucerne (*Cytisus proliferus*).