

REVIEW

DRY ROT IN WOOD (Fourth Edition). Forest Products Research Bulletin, No. 1. Price, 1/- net. London: His Majesty's Stationery Office: 1945.

The publication of this Bulletin is very timely when an early resumption of building throughout the country is generally expected, and it is particularly welcome on account of the probable utilization of proportionately much larger quantities of home-grown timber, which has an unfortunate reputation for being insufficiently well seasoned and for having a higher water content than is desirable in the trade. Since correct seasoning and storing of timber are the principal safeguards against later attack by the dry rot fungus, it would be advisable for sawmillers and builders to study these aspects of the matter before absorbing the useful contents of this Bulletin, which cannot be expected to cover these points.

The material in the Bulletin is conveniently arranged in three parts. Part I, Fungi causing dry rot in wood is mainly botanical and gives a very clear description of the dry rot fungus, *Merulius lacrymans*, and of the other principal wood destroying fungi. There is a useful tabular statement describing these fungi, which may be used as a key for identification of the particular species causing rot. The conditions necessary for fungus growth are fairly fully dealt with, and of these, moisture and air requirements being the only two under man's control in erecting buildings, deserve special attention. In the section on the resistance of timbers to dry rot, it is made clear that none of the timbers commonly used in this country can be relied upon to resist attack by dry rot because of the wide range of timbers which the fungus can infect, and on the subject of using preservatives, it is of interest to note that the sapwood of any species and the timber of non-durable species, if thoroughly treated with a good wood preservative, are as resistant to the fungus as the most durable species and will be found cheaper to use even allowing for the cost of treatment. The treatment and durability of plywood are also referred to.

Part II. The Detection and Practical Treatment of Dry Rot, deals in a thorough manner with the investigation of suspected buildings and with remedial measures which may be applied. It is in connection with this that the botanical description and the appearance of infected timber referred to previously, prove their use. It is essential first to identify the fungus if the best measures are to be taken against it, and then to discover the extent of decay. Signs of decay and tests for soundness of timber are mentioned, with a list of the most probable causes of decay. There are nine photographic plates showing infected timber, the spread of the mycelium and the fruiting bodies of *Merulius lacrymans*, *Lentinus lepideus* and *Poria vaillantii*.

As one would expect, the principal remedial measure is to remove all infected timber, even beyond points where decay appears to cease, and to sterilise thoroughly all points of contact before re-constructing with new timber. The use of heat and antiseptics is described. The sterilisation of timber and the use of different types of timber preservatives are gone into at some length, but these are rather preventive than remedial measures. A small section is added, dealing with treatment and prevention of dry rot under war-time conditions.

Part III. Precautions to be Taken in the Use of Timber in New Buildings to Prevent Outbreaks of Dry Rot, is a most useful one for builders, although it is of too technical a nature for the average forester. Precautions to be taken in design and construction, the use of cements and damp courses, the proper ventilation of floor spaces and construction of floors are the main features of this section. Section and plan designs of various parts of buildings illustrate the printed word very clearly. The penetration of damp through walls, ground damp and condensation are worthy of study, and all points where infection by the fungus can take place or means by which it can be spread, are carefully covered.

This is a very readable Bulletin and should be in the hands of all

architects and builders. Although somewhat outside the scope of the forester, in his normal work, it may prove of substantial use to him too, as his duties seem increasingly to embrace construction and repair of cottages and other buildings within his forest area. The Bulletin covers all aspects of the subject, and if the principles are adopted and the precautions taken, as outlined in its pages, there should be a considerable drop in the number of outbreaks of dry rot. The contemplated development of building and the extensive repairs necessary in bomb-shattered towns will require an enormous quantity of timber, and it is at the initial stage, by proper seasoning, that dry rot can best be prevented. In using home-grown timber for this work, the seasoning and application of preservatives will require very careful attention.

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