

In order to gain additional knowledge regarding the suitability of timbers not used as yet for the packing of butter, we, early on in our Commission, with the co-operation of the Agricultural Department, the Leyland-O'Brien Timber Company of Auckland, and the Auckland Dairy Association, to all of whom we are much indebted, caused small boxes to be constructed, each with a capacity for 3 lb. of butter, from the following timbers: Tawa, taraire, poplar, and *Pinus radiata*. The interesting report of the Government Grader upon this experiment may be seen in the Appendix C. Suffice it here to say that the tests, so far as they went, were most encouraging, all the butter remaining in excellent condition and free from taint.

The quantity of *Pinus radiata* and poplar in New Zealand available for butter-boxes, &c., is extremely small, and it would be a considerable number of years before a reasonable supply were available if the greatly extended planting of these trees as recommended by us in Part II of this report be followed.

As for tawa, there is at present a good deal in certain of the indigenous forests of the North Island, but in many places it occupies land that will soon be taken up for settlement, where, as there is little other millable timber, it will be burned and not converted. Nor can tawa timber compete with white-pine under present conditions. How long the white-pine will last at the present rate of consumption we cannot say, since we possess no reliable data as to the area occupied by that tree. There are considerable forests in South Westland which it will not pay to convert for many years to come, owing to their distance from a seaport or railway. To sum up, the substitutes for white-pine must come from abroad until such time as our own plantations are available. We saw in Dunedin an imported butter-box made of Norway spruce (*Abies excelsa*), which seemed suitable and which is supplied at a lower cost than that of white-pine. We have also seen boxes made from wood pulp. Then there are the timbers used in Canada and Siberia for packing butter, which should answer equally well here, and which could be imported probably for many years to come.

Bearing all the above facts in mind, we are of opinion that a substitute for white-pine can be found, first of all in an imported article, and later in timber grown in New Zealand. The following matters may be briefly dealt with which concern our final decision:—

1. White-pine, at one time used as a building-timber in New Zealand, has fallen into disrepute through the action of the larva of a beetle, which brings about the so-called "dry-rot." Consequently the timber is now used solely in the Dominion for butter-boxes, cheese-crates, fruit-cases, and packing material generally. But in Australia the timber is used not for boxes only, but for other purposes; so that the whole of the contents of the log, the waste excluded, can be sold to the Commonwealth. Were such exportation to be forbidden the West Coast Timber Company shows that 60 per cent. of the log output would remain in the sawmiller's hands and the price of box-timber would be raised to such a price as to allow the above 60 per cent. to be rejected.

2. Were there to be a restriction on the export of white-pine, then the sawmiller would cease to convert the white-pine trees in his rimu forest, and they would remain only to be eventually burnt in the course of settlement.

3. By arrangement with Australia our white-pine timber is admitted free. We get much valuable hardwood timber from Australia, and were the exporting of our white-pine to be prohibited Australia might decline to let us import her hardwoods. After a careful consideration of all the points dealt with above, we recommend that there should be no restriction whatsoever imposed upon the exportation of white-pine. Further, in view of the great importance to the State of finding and providing a substitute for white-pine for the packing of butter, we consider it advisable that the Dairy Produce Division of the Agricultural Department should conduct an exhaustive series of experiments with regard to the capabilities of various timbers for butter-boxes, especially *Pinus radiata*, *P. Laricio*, the various kinds of poplar, Oregon pine (*Pseudotsuga Douglasii*), the various species of New Zealand beech, tawa, and taraire.