

800,000 acres of exotic forest in New Zealand were ultimately to average a mean annual increment of 100 cubic feet per acre, the annual yield of logs, amounting to 80,000,000 cubic feet, would produce by log frames over 530,000,000 board feet of sawn timber, but only 430,000,000 board feet if converted by the usual type of circular-sawing equipment; or, expressed in another way, circular sawing, if adopted, would be equivalent in avoidable waste to burning or otherwise losing 160,000 acres of our exotic-forest resource.

The Forest Service is confident that the public will not be a party to such rank wastage of its assets, and yet it has been this type of equipment that has been strongly advocated by many in the industry. Not one of these has publicly accepted the basic principles of log classification and log-frame sawing, the sole concession—and this only by implication—that there is some merit in frame sawing being that deal frames are now advocated for use with circular-saw head-rigs.

That the accuracy of the Waipa log-frame sawing is much superior to circular sawing is well evidenced by the attestation of one boxmaker that from each LA rail truck of Waipa timber he obtains only two bags of planer shavings, as compared with twelve bags from the same quantity of circular-sawn timber. More convincing still are the results of trial shipments of over 1,000,000 board feet of Waipa timber to Australia. The Forest Service, confident in the belief that its timber was worth more than any other locally produced exotic softwoods, would not sell in Australia at a premium of less than 3s. per 100 board feet on ruling prices. The buyers' experience and advice were that, due to the accuracy of sawing and drying and the trimming and branding of the timber—

- (a) It was worth a premium of 6s. per 100 board feet;
- (b) Wastage in use was only 3 per cent., as compared with anything from 13 per cent. to 20 per cent. for other locally grown insignis-pine timber;
- (c) It was better sawn and merchandised than any North American timber, and equal in these respects to the best Scandinavian timber; and
- (d) Under no circumstances should the New Zealand Government allow any exotic softwood to be exported from the Dominion unless equal in all respects to these Waipa shipments.

These facts, it is believed, speak for themselves, and the Forest Service is justifiably proud of having discharged so successfully to all concerned its first duty of demonstrating the physical possibility of high-quality production by log classification and log-frame sawing. That a reasonably good profit has also been earned at existing price levels is of special significance, since by the reduction in milling waste, the State Forest, and therefore the public, revenues will ultimately be increased by £60,000 annually. Exotic-forest owners may also effect similar increased realizations to the extent of one-fifth of the stumpage rates based on sales to circular-saw mills.

Nevertheless, Waipa is only the first step in demonstrating the true value of the country's exotic resources. Now that operating experience with log frames has been obtained, the next step is to demonstrate economic operation on a large scale. A three-line production mill with an annual cut of 20,000,000 board feet has been designed as the smallest balanced unit capable of handling all classes of logs efficiently and producing timber at a reasonably low cost by the mechanization both of sorting-table operations and of the stacking and unstacking of timber for kiln-drying, both distinct improvements on the already efficient operations at Waipa.

The major objective is to effect a reduction on current Waipa costs of 3s. 6d. per 100 board feet not with a view to increasing stumpage, but to reduce the selling-price of timber for domestic consumption and allow it to be sold more widely in Australia, which is capable of absorbing probably twice as much exotic softwood as the local markets. The nominated reduction is regarded as the absolute minimum required to create and maintain any large volume demand from Australia, and even this is premised on substantial reductions in both rail and sea freights. It is therefore imperative that the Forest Service, with so much at stake, should proceed with this further demonstration. It is a vital national project similar to those found essential in the forest countries of North and Eastern Europe, where most major forest areas owned by the various Governments carry such a State mill as a key control unit to ensure that not only does the Government receive full value for its stumpage by reduction of wastage, &c., but that high-class products are manufactured and export markets properly developed and serviced. To ignore the experience of these countries would be extremely dangerous as well as disastrous to the public revenues and to the future of exotic forestry in New Zealand.

The industry unfortunately appears to have lacked such vision and for this reason has advocated small mills premised on current price levels. Opposition to large units is perhaps natural to the industry owing to the failure of even moderately large units in indigenous timber. On the other hand, reference has already been made in a preceding paragraph to the fact that opposition appears to spring from a desire to see as many small operators as possible established in the exotic forests.

Failure to charge the Forest Service with the responsibility for a further demonstration unit will be a national calamity in New Zealand forest history. By its successful and profitable operation of the Waipa Mill the Department has proven its enterprise, its courage, and its resourcefulness. It is the only organization in the country with any practical knowledge and experience of log-frame operation on a large scale, and it is sound public policy that it should pursue with all expedition its plans for exploring the economies of large-scale production and developing the export markets. The fact that a Government Department is carrying out this activity should be ignored. The stakes at issue are so profoundly important that they should transcend all political considerations, particularly as both the Government and the Forest Service have repeatedly announced that it is