

## PRESIDENTIAL REVIEW

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As those attending the 1955 Annual Meeting at Whangarei will recall, the Presidential address, being general in nature, was stood over to allow more time for papers dealing with the specific theme of the meeting. In submitting it for publication at this time, it has been noted that since the Annual Meeting much of its original content has already been better said by others, while some also has been rendered obsolete by the march of events. It has therefore been recast and is presented now in the form of a general review of the present forestry scene.

In such a review, mention must first be made of the impending completion of the Tasman plant at Kawerau, which will give New Zealand its first newsprint industry, and which will complete the series of saw and pulp mills designed to utilize the Kaingaroa Forest. The successful completion of this great project has been most fittingly recognized by Her Majesty in conferring the honour of the C.B.E. upon our fellow member Alex Entrican, who is not only himself the greatest single contributor, but who, as Director of Forestry, also personifies the very large number of other members of our Institute, many unfortunately no longer with us today, who have been associated with the development of this project over the past forty years.

This happy occurrence is fittingly given special treatment elsewhere in this Journal.

Tasman newsprint will add another major pulp product to New Zealand's economy, and will mark a further significant stride along the road of self-sufficiency, pioneered by Whakatane cardboard, Penrose building board, and Kinleith kraft.

In all, it would appear that next year a log volume of approximately 22½ million cubic feet of radiata pine and other associated species will be required to feed the pulping plants of this country.

In sawn timber, statistics for the year 1954/55 show a pine\* cut of 282 million bd. ft. in a total sawn production of 616 million bd. ft., both figures being the highest yet recorded in our history.

On these figures it may be expected that by next year the total required input of pine timber will be in the order of 82 million cubic feet per annum of log volume, while expansions already in hand by various organizations in both sawmilling and pulping fields promise

\* The figure of 282 million bd. ft., though mostly *Pinus radiata*, includes *Pinus laricio* and other *Pinus* spp. The total production of exotic timber, including genera other than *Pinus*, was 292 million bd. ft. In subsequent paragraphs the term pine as used by the President denotes exotic softwoods generally.—Ed.

to carry the annual log volume to 95 million cu. ft. by 1960.

This may be contrasted with the position at the time of the major establishment of our pine forests in the mid-twenties, when exotic pines accounted for from 8 to 12 million bd. ft. a year in a total sawn timber production of 300 million bd. ft., and when pulping industries were still in the womb of time.

Obviously, utilization is making mighty strides, and it is timely to compare growth potentials with industrial capacities, to see how they are beginning to match up.

It is important to note that the factors which led to the establishment of a disproportionately greater area of pine plantation in the Rotorua-Taupo region are now making for an even more disproportionate concentration of utilization capacity in that region.

Not only are all our pulping enterprises located in this region, but so also is the great bulk of our sawmilling capacity, and this trend can be expected not only to continue, but to become more pronounced during the next decade. It is therefore essential that a reasonably accurate concept be formed of the forest capacity of the region so that utilization capacity may be developed in harmony. In such calculations, a tendency has been noted to base the figures on sustained yield capacities, according to such yield tables as are at present available.

Such calculations fail to appreciate the most significant feature in the present-day picture of the plantation stands of the Rotorua-Taupo region—that is, the heavy excess growing stock now existing in the forests due to the disproportionately heavy plantings of the decade 1920-1930. Because of this factor, all major holdings in the region now carry growing stock much in excess of normal, and the utilization of such volumes within the physical lifetime of the species is a problem of considerable significance. Only by the rapid development of wood-using industries to a capacity very considerably above the calculated sustained yield capacity of the forests can this excess growing stock be brought to profit without risk of loss through decadence.

It is obviously the duty of the forester to point out this position to his utilization colleagues so that such losses may be avoided. While conditions vary between different ownerships to such an extent that an attempt at this stage to compute the quantitative position for the Rotorua-Taupo region would be valueless or even misleading, the quantity removable annually over the next few decades to achieve a normal distribution of age classes is significantly greater than the capacity of plant so far present and planned.

Further expansion of industrial capacity as rapidly as markets justify, and as rapidly as money, materials, and manpower can be mobilised is therefore essential to the full utilization of the forest assets of this region.

From here we move to the interesting position which will arise when an expanded industry has overtaken the accumulated growing stock.

Obviously, the forester will be called upon to produce the additional volumes required to maintain on a permanent basis an industrial capacity developed to deal with the present temporary position. This means that the sustained yield capacity of the forests must be built up from our present figures based on untended stands to the maximum yields which can be secured from the areas by the practice of intensive silviculture.

A mere mention of some of the problems along this path is sufficient to indicate the challenging position which lies before us.

We must first of all develop a thinning technique which will, at economic cost levels, utilize volumes now being lost in the normal course of reduction in numbers.

We must also secure completely effective re-establishment in the face of increasing competition from second, third, and fourth tier vegetation. Full stand densities must be secured and maintained in the face of wind, lightning, insect, and fungoid losses, while areas idle through unsuitability to main species must be put to work by use of complementary species. Higher yields and higher qualities must be sought, both by pruning, and by propagation of the best strains which can be developed. In the search for the answers to these problems, the importance of basic science must not be overlooked. We must know our soils, and know our species.

It may also clarify our mental approach to these problems if we accept the position that we are no longer dealing with an exotic tree crop artificially established on a previously almost sterile terrain, but with a full scale forest complex involving many species of both ancient and recent arrival. Just as the present day inhabitants of this country are no longer Europeans and Polynesians, but New Zealanders, so must radiata pine now be considered no longer an exotic but native, albeit perhaps not yet completely stabilized in all respects.

Turning now to forests of older origin, it is most interesting to note the recent revival of interest in the possibility of perpetuating the podocarp forests. It is somewhat ironical to recall that thirty years ago, when extensive areas of prime podocarp forest still existed, it was held that the podocarp timbers were merely second class softwoods, that the species would not regenerate, that they grew so extremely slowly that no economic case could possibly be made for their management, and that in any case they occupied land urgently required for higher use.

Now that it has become difficult, over wide areas of both islands, to find even a remnant of a podocarp stand to show our children, we concede that the podocarp timbers are special purpose woods with unique features. The desolation of half a province has finally convinced us of the obduracy of the bulk of the Westland soils; we admit that over extensive areas tangible regeneration has followed logging, only to be destroyed by fire; and figures from sample plots established 25 years ago show a tangible increment in pole stands.

Though one must not minimize the difficulty of the problems still awaiting solution, an economic case can still be made for rimu in Westland, and for combining podocarp production with erosion control on the North Auckland ranges. There may also be specially favoured cases in other areas. It is therefore gratifying to note the attention now being given to the podocarps, as well as the intensification of activity with kauri.

Regarding beech, progress toward productive management units is apparently being made slowly in the face of inaccessibility and limited markets, and these conditions must continue to rule for some time to come.

In the field of protection forests, the visible deterioration of the watershed cover throughout the drier portions of both islands is creating a problem of increasing magnitude and complexity.

It is hoped that concrete progress toward an effective solution may result at our next annual meeting at Hanmer, and all members are asked to give thought to the matter, with a view to an effective contribution on that occasion.

Meantime we note with appreciation a growing awareness of the problem among the general public as evidenced in the press with regard to proposals to open areas for milling in the Urewera. In this case a notable advance was made in that the area was covered by a survey, and a use plan developed by a committee representing forestry, wild life, soil conservation and river control, and land development interests as well as the Maori owners.

It is hoped that members familiar with the details of this case will take steps to have the position publicized, as it is obvious that the public is looking for professional opinion to give a lead.

The recent announcement by the Minister of the Government's intention to make bursaries for overseas forestry study available to other than Forest Service personnel is a welcome development in the vital field of forest education, and shows a recognition by the Government of its responsibility to make facilities for professional training available to all types of forestry enterprise in New Zealand.

In the era of intensified forestry practice now opening before us, a strengthening of technical personnel is mandatory, and the present means of recruitment open to non-Government organizations are already proving inadequate to meet requirements. It is therefore pleasing to note that the Government has taken the first step to widen the channel of opportunity. An indication has already been given that the forest owners will have a voice in the selection of bursars under this scheme, and it is hoped that this may lead on to effective participation by private forestry interests in formulating plans to broaden all phases of forestry training and education so that the needs of all interests may be adequately catered for.

There appears to be a need for what might at this stage be called a joint committee on forestry education.