

NEW ZEALAND JOURNAL OF FORESTRY

Published annually by the New Zealand Institute of Foresters, Inc.

Vol. VII

1955

No. 2

EDITORIAL NOTES

Birthday Honour. The Institute records with great pleasure the recent award of the C.B.E. to one of its members, Mr. A. R. Entrican. This is the first occasion that a member of the Institute has been so honoured, and it is thus a noteworthy event in the history of forest endeavour in New Zealand. The award is a fitting tribute to Mr. Entrican's outstanding personal achievements, not only in the field of forestry and forest administration generally, but also, and most particularly, in relation to the development of the Murupara scheme. Mr. Entrican more than any other single person has been the architect of this great national enterprise, and it has been his faith and his driving force which over the years has brought the scheme to fruition. It is most appropriate that his efforts should receive Royal recognition at a time when the Kawerau industries are just going into production. All members of the Institute will wish to congratulate Mr. Entrican on his richly deserved honour.

Indigenous Research and Conservation. The last two Annual Reports of the Director of Forestry have made it plain that there has been a major and most important change in the attitude of the Forest Service toward indigenous forest management, particularly podocarp forest management. It is also clear that this change is the fruit of the recommendations contained in the de Gryse report, the publication of which is eagerly awaited. From published excerpts it is possible to deduce that de Gryse restates the theoretically unassailable principle that the exotic softwood species are not and may never become thoroughly naturalized, and that greater reliance must therefore be placed on the indigenous forests for future supply of softwood timbers. The expressed intention of the Forest Service to make every effort to catch up lost time in the intricate field of podocarp forest research is a logical consequence. There will be few foresters who will cavil at either the principle enunciated above or at the research

programme which its acceptance renders necessary. Indigenous forest research has long been the Cinderella of the department, and the Institute must welcome any developments in this field. There are, however, a few aspects of the matter which call for comment and, perhaps, for a little friendly criticism.

Following Queensland successes with hoop pine and Queensland kauri, the emphasis is apparently to rest heavily on methods and techniques for artificial re-establishment of the podocarp stands. Complementary to this, there will be further attempts at natural regeneration of the podocarp forests employing strip felling techniques, or with arbitrary reservation of portions of each stand exploited. Attention will also be paid to genetical research aimed at discovery of fast growing select strains of indigenous softwood species. And once more, with the principles involved, few foresters would disagree. These things are most desirable. But it is possible to detect, in the terms employed in presentation of these programmes, an element of wishful thinking. The results to be expected from these measures are described, if not in glowing terms, then at least with a greater degree of optimism than has ever before been the case.

The point must be stressed that, so far, the re-establishment of the podocarp forests is only a matter of good intentions. Queenslanders, by report, have had a considerable measure of success with hoop pine and Queensland kauri, but this means only that we should be prepared to give Queensland methods a fair trial. It does not mean that success will be automatic. On the contrary, all previous experience with New Zealand podocarps, rimu in particular, warns us to be prepared for failure. Likewise, the techniques proposed for use in procurement of natural regeneration carry with them no guarantee of good results. These techniques have been tried, by accident or design, many times in the past. Acknowledgement of the silvicultural recalcitrance of the podocarps is not unwarranted pessimism but, unfortunately, well-founded realism. By all means let the problems of the podocarp forests be studied afresh: it is essential that more thorough work be done. No castles in the air should, however, be built on the foundation stone of good intent.

But let it be assumed that instantaneous success is possible. What then? No forester who at any time has worked in the podocarp forests has conceded the possibility of a rotation for rimu, matai, or totara, of less than 250-300 years. Many expect a rotation even longer than this. No new crop will therefore be ready for use for several centuries. It cannot be expected that any genetical work done, however successful, will reduce this period significantly for at least the first of the new crops. Will a new crop which cannot be ready before 2,250 A.D. buffer the timber economy of New Zealand in any way against possible failure of the exotic forests? What proportion of our limited technical resources should be expended to meet the problematical timber requirements of the 23rd and 24th centuries? These are a few of the queries that spring to the mind.

By far the most disturbing feature of the Annual Report, however, is the linkage of indigenous forest research to indigenous forest conservation. For some time past we have been told of the fast-dwindling podocarp resources, and of the urgent need to conserve them. The most direct method, restriction of the cut, was considered essential. Thus in 1952 it was stated with some emphasis that North Island production must be curtailed by 20 million bd. ft. per annum and, in 1953, that total production must be reduced to 100 million bd. ft. per annum *as rapidly as possible*. At the time, the Forest Service was charged with springing this drastic conservation policy too suddenly on to the timber industry and the general public. The Service refuted the charge completely and most effectively and, by quotations from previous annual reports, demonstrated conclusively that conservation of the indigenous forests had consistently been the expressed policy of all previous governments. Now, with what would appear to be equal suddenness, we are told in effect that a planned reduction in the cut is not practical nor even desirable, and that conservation can better be achieved through wise use.

It might well be asked whether this conclusion is sound. The principle involved in the wise-use argument is quite straightforward. When a stagnant and overmature forest can be replaced by a young and more vigorous crop, then it is not true conservation to lock it up, sterilizing its production potential. When, however, there is reasonable doubt as to whether the crop can be re-grown, or re-grown in reasonable time, then surely it is fallacious to argue that exploitation is "conservation by wise use". Only when it has been demonstrated that the podocarp forests can, in fact, be re-invigorated, and not until then, would deviation from conservation policies previously advocated appear justifiable.

By all means let us do everything reasonable and possible to place the podocarp forests on a basis of sustained yield; but equally let us not make the error of mistaking the intention for the deed.

Professional and Non-Professional Forestry Societies. For some time past various members of the Institute have been considering the desirability of widening the scope of the Institute by introducing an affiliated class of non-professional membership. It has been felt that there are many individuals and organizations in the country who are sympathetic to the aims of the Institute and who may like to contribute to its funds, but who are not eligible for any form of membership under the existing constitution. Supporters of the affiliated member proposal can quote the fact that parallel societies in other parts of the commonwealth do have such a class of non-professional members.

This matter was raised at the last annual general meeting in the form of a definite motion to amend the constitution. In the discussion around the motion it was pointed out that one probable effect of widening the scope of the Institute would be to discourage the

formation of an independent "friends of forestry" type of society, and that the revival of an organization such as the now moribund N.Z. Forestry League would almost certainly be in the best interests of forestry in New Zealand. It was suggested therefore that the Institute should proceed cautiously, which in fact the annual meeting decided to do.

The whole question is one to which members could well devote further thought. The N.Z. Forestry League was active for some 25 years; it published an attractive Journal; and it played a not insignificant part during these critical years of forest development in New Zealand in moulding an informed and responsible public opinion in forestry matters. It is perhaps not too much to hope that some of the more enthusiastic supporters will band together and revive a Forestry League. The time would appear to be opportune as there is at present a large and growing public interest in all matters pertaining to forestry, and there is an obvious desire on the part of the public for more information than can be gleaned from official sources. Moreover there are many active and enthusiastic wood-lot or small forest owners who would welcome a medium through which they could exchange information on estate and farm forestry matters. State, company, and local body forestry must always be predominant in the forest economy of New Zealand, and the more support that can be given to these large scale activities, the better it will be for forestry. Small scale forestry however still has a most important part to play, and it would be no exaggeration to say that forests will not occupy the role they should in the land-use pattern of the country until every farmer is himself a forester. A Forestry League could do much to bring this state of affairs about.

Yet another sector of the public has a vital concern with forestry, and that is the timber trade, both indigenous and exotic. It is heartening to record that over recent years there seems to be a growing awareness on the part of the trade of its dependence on sustained yield forestry. There is still, however, much to be done to explain the objects and methods of foresters to wood processors and wood-users; and conversely to bring home the needs and problems of the timber industry to the growers of forests. In this field also, a Forestry League could play an important part, complementary maybe to the forest authority, to trade organizations and publications, and to the Institute itself, but still important enough.

The difficulties attendant on the formation of any sort of Forestry League must not be under-emphasized. If it is to be formed at all it needs firstly a few hard-working and unselfish individuals who are prepared to launch the organization and give it some impetus; if it is to stay in existence it needs adequate financial backing, without however financial domination by any sectional interest; and if it is to be successful in its operation, and not just another crusading body, it needs a solid and lasting community of interest amongst its members. These needs will not be easily met.

What then should the attitude of the Institute be on this question? It has been suggested that a Forestry League could perform three functions, creating a greater and more enlightened public interest in public forestry, encouraging private forestry, and bringing even closer together the producers and the consumers of timber. The Institute can not itself do all this, nor perhaps should it try. It can, however, clarify its attitude to the Forestry League type of society, and perhaps at the same time to the more purely protectionist organizations which already exist. If it decides that a Forestry League would in fact be desirable, and that there is a reasonable possibility of one being formed in the not too distant future, then the Institute can do much to give moral support. The matter could well be further debated at the next Annual General Meeting.

Forest Education. Between 1934, when the Canterbury College School of Forestry closed down, and the latter years of the war, when servicemen were granted bursaries to British universities, there were no facilities of any sort available to New Zealanders for higher forest education. During the last decade the Forest Service has been sending selected graduates in basic sciences to overseas universities for degree forestry training; and until such time as a School of Forestry has recommenced in New Zealand, this system will probably continue. It has been successful in augmenting the much-depleted professional staff of the Forest Service, and it has resulted in the steady growth of a solid cadre of highly qualified staff. There should be no worry about the future technical direction of State Forests.

The position with respect to the large area of forest under other forms of ownership is much less satisfactory. A few Forest Service graduates have taken private employment, but the numbers are small. In general it can be said that the needs of industry, of private companies and of local bodies have not been met by Government assistance, and that these organizations have done little themselves to recruit professional staff. As a result, and in round figures, there is today only one trained forester for every 80,000 acres of privately owned exotic forest. When one considers the importance of the private forest estate to the economy of the country, it is evident that this situation does not augur well for the future; it must be of concern not only to private forest owners, but also to the Government itself.

For these reasons it is particularly gratifying to note that the Government is well aware of the problem and has done much to provide a solution. According to a recent announcement three bursaries, each to the total value of £500, are now available annually to assist private individuals who wish to take an overseas forestry degree. The conditions do not seem unreasonable; they are (a) adequate practical forestry experience in New Zealand, (b) B.Sc. or an acceptable standard of basic sciences, (c) a bond to practise forestry for five years on return to New Zealand.

The Government must be congratulated on this move, which will

be welcomed by the Institute as a major step forward in the broad field of forest education. It is hoped that individuals and organizations will avail themselves of the opportunity now presented, and that no year will go by without a full quota of private bursars proceeding overseas. The private and local body sector of New Zealand forestry if it so wishes can repeat the history of the Forest Service, and in the next ten years can build up its own hard core of highly qualified staff. The Government has shown the necessary foresight; the opportunity is now there to match it.

Tussock Grasslands. It is probable that most New Zealanders, when questions of watershed protection arise, think only of watershed protection forests. The extreme importance of the tussock grasslands of the high mountains, in prevention of soil loss and control of water yield, is little appreciated. Yet it must be obvious to all who know the mountain country, particularly the high country of the South Island, that the well-being of the lowlands depends as much upon the continued health of the tussock grasslands as upon the continued efficiency of the mountain forests.

The report of the Tussock Grassland Research Committee*, therefore, makes most disturbing reading. This report, which deals specifically with the high altitude snow-tussock country of the South Island, indicates only too clearly the extent of the destruction that has taken place and the extent to which surviving grasslands of this type have been damaged. There is possibly still room for argument as to the part played by various agents in bringing about this destruction; but with respect to the facts of destruction and deterioration there can be no argument. And, unfortunately, the inadequacy of present research efforts is also patent.

The damage that has been done cannot be repaired pending acquisition of an understanding of these grasslands more thorough by far than any now possessed, an understanding of the plants, of the animals, of soils, and of climates, and of all the complex actions and interactions of plants, animals, soils, and climates. The urgent need is for competent research; this is clearly stated by the Tussock Grassland Research Committee. But by whom is action to be taken? From press reports we understand that the Soil Conservation and Rivers Control Council have volunteered to act as the co-ordinating body, but no amount of "co-ordination" would seem to us to be likely to lead to the employment in this field of work of a single additional research officer. Can work that is not being done be "co-ordinated"? Surely the need is not merely for assumption of co-ordinating powers by a central authority, but for firm placement of responsibility upon a central authority.

As all concerned with the tussock grasslands will be aware, present

* The High-Altitude Snow-Tussock Grassland in South Island, New Zealand. Tussock Grassland Research Committee. *N.Z. Journal Sci. & Tech.*, Sect. A, Vol. 36 (4), 1954, pp. 335-364.

research is conducted piecemeal by a relatively few research officers dispersed through several departments of central government and many agencies of local government. Can this piecemeal attack be successful, even with top-level co-ordination? This is contrary to all experience. Vigorous action, which is what is required, will follow firm allocation of responsibility, but otherwise cannot be anticipated. Full responsibility for research in connection with the lowland grasslands rests on the Grasslands Division, D.S.I.R. Full responsibility for forest research rests on the Forest Service. Do the tussock grasslands differ so greatly from the lowland grasslands and from the forests that a totally different set of principles apply?

This matter must be one of considerable concern to many foresters. The most potent threat to great areas of critically important protection forest lies in the damage that has been done to the tussock grasslands that extend above the timberline. No forests can withstand the mass movement of erosion detritus from above. Direct damage to the forests, wrought by browsing animals, is stepped up with destruction or impoverishment of browse resources on surrounding lands. Badly damaged tussock grasslands are returned to the forester for remedial action. No forester can safely disregard anything that happens on the lands above and around his forests. The matter of tussock grassland research is, therefore, a matter of legitimate interest to foresters. If action is only possible following development of an enlightened public interest in the tussock grasslands, foresters could well play an important part in awakening this interest.

Macrae Memorial. At the last Annual General Meeting the proposal was put forward that the Institute should erect a plaque at Kaingaroa Forest to honour the memory of the late Roderick Macrae, Honorary Member of the Institute and Paul Bunyan of afforestation in New Zealand. The appeal for contributions has so far met with a poor response. There must be many of the older members who knew Macrae as a great man and a great forester, and who would wish to share in this tribute to him. They are asked to send in donations to the Treasurer, Mr. A. C. Forbes, as soon as possible.

OBITUARY

R. G. LAWRENCE

We regret to record the death of an associate member of long standing, Mr. R. G. Lawrence. Reg. Lawrence worked with the Forest Service for 27 years and was successively in charge of nursery operations at Golden Downs, Ashley Forest, the Forest Vocational School at Tapanui, and the Hawkes Bay ranger district. He was a good practical forester, and was endowed with green fingers and sound silvicultural sense. A kindly and popular man, he will be missed by the many who knew him well enough to appreciate his sterling qualities.

A. P. Thomson.