

President's Valedictory Address

Professor T. Clear, President of the Society of Irish Foresters.

It is customary on these occasions for the outgoing Presidents to review trends in Forestry at home and abroad and to comment on developments that are likely to be of interest to forestry and of importance to the forest industry.

If one is to put the question—how does forestry stand in the world today?—most foresters would give an optimistic answer. This optimistic answer would be based on the facts that are available from the studies carried out by F.A.O. These studies reveal that the sector which produces and uses wood and wood products forms an important part of the overall economic activity in nearly every country in the world. Wood is one of the world's principal national resources—one that is renewable and one which nearly all countries possess or have the capacity to create. The products of wood enter widely into the economy at every stage of development and the industries that use wood form an important part of the manufacturing sector of most of the more advanced economies.

The evidence is that the industrial wood sector is growing rapidly and that the demand is shifting from unprocessed to processed wood products and from solid to reconstituted wood products such as chipboard and paper. We have evidence of this here at home in the fact that exports of chipboard and hardboard rose by 25% in the first seven months of 1968 compared with 1967.

Apart from the increasing demand for products from the forest, there is a spectacular change in the techniques and equipment coming to hand to maintain and increase the production of the forests and forest industries. One need not emphasise the amazing progress of industrial technology in recent times—it is evident at every hand's turn. It is not so marked in the forest, however, and it is necessary to concern ourselves with this lest a chasm develops between our Industry and industry in general. It is vital that our people should participate in these

developments and that, particularly, research workers in forestry should be able, and seen to be able, to participate at an advanced level, in the developing technologies.

Here in Ireland we have some major problems to overcome, and our problems are not untypical of the problems of forestry in many other countries.

Our first problem is one relating to land acquisition. It is vital that we sustain if not increase our planting programme. There is a great potential for forestry here and it can only be realised if we develop methods for securing the means for an increased planting programme.

Secondly, the demands of our rapidly developing wood-using industries must be met and this calls for developing thinning operations and the economic harvesting of small-sized wood.

Thirdly, it is now increasingly possible to increase production from existing stands and this must be done at an acceptable cost.

Fourthly, we must develop efficient and economic harvesting and transport methods, from our peatland areas.

And finally, we must encourage wood-processing industries to carry on research and to improve the yield and service of wood products.

We have become acutely aware of the importance of Provenance here. The large areas of Lulu Island contorta are at once a major source of embarrassment and disappointment. In passing, I was intrigued to read in a recent edition of *Scottish Forestry* that Lulu Island is now practically engulfed in the urban expansion of Vancouver and is not likely ever again to be a source of contorta pine seed, good or bad. It appears that the Island was named after a voluptuous "entertainer", Lulu Sweet, who passed that way in 1861.

Forestry research is developing methods for economic afforestation with seedlings of high genetic quality. Major advances in nursery techniques are imminent with the advent of "bullet" planting, or "tubed" seedlings. Tree seedlings can now be grown and ready for planting when only a few weeks old. Variants of this development are common in nurseries in Finland and Canada, and now are on trial in Britain and here at home. The advantages over normal planting stock for us here are (1) extension of the planting season, (2) increased speed of planting (3) introduction of mechanised planting, (4) cheap and rapid production of planting stock. It would seem that conventional nursery practice may soon be a thing of the past and that our seedlings will all be raised in plastic houses, under

absolutely controlled conditions. Planting will go on all year round and will be so mechanised that manual tree-planting will be the exception rather than the rule.

The use of fertilizers in farm practice has grown enormously in the last twenty years in this country and has led in most developed countries to an embarrassing level of overproduction in grain and dairy products. It now appears that foresters are turning successfully to the fertilizer weapon to increase production in forestry. It is unlikely that the expected increase in production will be an embarrassment, since it can be safely stored in the forest to be harvested when needed.

Turning to harvesting, the newest in felling devices is the tree-shears. Hydraulically operated jaws cut off a tree at its base. These shears are tractor mounted and, in addition, can be associated with a machine which can cross-cut into logs or feed to chippers in the harvester.

A variety of very manoeuvrable tractors, for picking up and loading pulpwood in the forest, such as the Bobcat, show how adaptable new machinery can be. A recent innovation in British Columbia, balloon logging, is of considerable significance, when one thinks of the difficulties of roading and extraction on peat. The balloons can extract at 30 miles per hour with a maximum distance of 1,500 yards. Five men can extract 5,000 cubic feet per 8-hour shift.

In the sawmilling industry there are also developments of note. As is well known, a log put through a conventional head-saw loses 50% to 60% of its volume as slabs. The wood going through a chemical pulp mill loses all or most of its lignin as waste. The most profitable way to use logs is to recover the maximum of sawn-lumber and use the residues for pulp and particle board manufacture. This is happening here and increasing quantities of slabs are being used by our hardboard and chipboard mills. Now comes the chip-n-saw. This machine squares the log, by chipping off the waste and sawing the squared log into boards and scantlings. There is no waste and logs from 4" to 15" diam. can be processed. Production capacity is 1,750 logs of 16' length per 8-hour shift.

Here at home we have had a very significant contribution in wood technology, the development of a fire retardant hardboard at Athy. This has aroused world-wide interest.

The Forestry Programme, to judge by recent statistics provided by the Forestry Division of the Department of Lands, is beginning to lose momentum. The total productive area

acquired in the period 1967-68 was 14,713 acres, as against 18,313 acres in 1966-67 and close on 30,000 acres in peak years.

The area of new afforestation was 21,496 acres, as against 18,838 in 1966-67—a welcome increase which can hardly be sustained in the light of the acquisition figures quoted above.

Thinning and Felling: The area recorded as thinned during the year was 12,051 acres producing 4.25 million Hoppus feet; in addition, another 2.00 million cu. ft. was harvested—a total of 6.25 million cu. ft.—the figure for 1966-67 was 7.6 million—a significant decline.

Employment: In 1967-68 was down to 3,851, against 4,134 in the previous year.

Expenditure for 1967-68 amounted to £4,246,528 and *income* £707,221.

To complete my review of forestry progress here, I include some facts and figures supplied by the Forestry Division of the Ministry of Agriculture, Northern Ireland. The information refers to the financial year 1967-68.

The area acquired during the year was 6,779 acres, giving a grand total of acquired land of all types of 145,531 acres. The area planted during 1968, including replanting, was 4,477 acres, giving a grand total of 90,890 acres planted.

Out of a grand total of round timber produced of 1,587,000 hoppus feet, all but 107,000 sold standing, was harvested by the Staff of the Northern Ireland Forestry Division. This is in marked contrast to the practice in the Republic, where the vast bulk of the produce of thinning and felling operations is handled by timber merchants and pulpwood contractors.

The number of men employed was as follows:

Regular workers	1,077
Relief Scheme workers	1,100

The number of relief scheme workers has fluctuated considerably in recent times and the scheme is to be terminated indefinitely in April, 1970.

There was a total of 446 acres of private planting done under the various planting grant schemes operating in Northern Ireland.

The total expenditure for the year (excluding interest, but including depreciation and superannuation) is given as £1,405,000. Income stood at £375,000.

I have been reading the Third Programme for Economic and Social Development and I note that Forestry's contribution to

G.N.P. is expected to increase at the rate of over 4% during the period of the programme, i.e., up to 1972.

Efforts being made currently to improve the intake of plantable land are aimed at a restoration of the annual planting to 25,000 acres in 1969-70. By 1972 State forest should be 605,000 acres. The report states there is a new approach to land acquisition whereby each area is examined and valued in relation to both its potential capacity to produce timber and the assessed cost of developing it.

The report reveals that a survey was carried out in 1966-67 by a firm of consultants and that the findings were to the effect that the viability of the existing processing factories would be strengthened by expansion and that in general such expansion would offer the best prospects of remunerative prices to the grower. The existing mills have plans for expansion which will absorb all foreseeable increases in pulpwood output until 1973.

The report states that major projects are in hand to develop the scenic and recreational values and game potential of State Forests and that we may expect this work to be intensified in the period ahead.

May I conclude by thanking all the members of the Council for their good work and excellent co-operation during my term of office as President. It was a very pleasant task for me to preside at meetings and much constructive work was done. The Society is now well established in the forestry world and is well set for sustained progress in the years ahead. It has been necessary to keep the financial position constantly under review as ever rising costs threatened to make life more and more difficult for the treasurer. The new facilities offered by the R.D.S. and the new scale of subscriptions promise to relieve the strain and I feel satisfied that my successor can take over the ship on a reasonably even keel. I wish the Council *bon voyage* and may the Society continue to prosper.

I now call on our new President, Mr. Michael McNamara, to take the chair.