

Society's Activities

Twenty-first Anniversary Dinner of the Society

THE twenty-first Anniversary Dinner of the Society was held in the Gresham Hotel on Saturday, 16th November. It was presided over by the President of the Society, Mr. Michael McNamara. The guests of honour for the night were The Minister for External Affairs, Mr. Aiken and Mrs. Aiken, and, representing the Minister for Lands, the Secretary of the Department of Lands, Commissioner Timothy O'Brien and Mrs. O'Brien. Other distinguished guest were Mr. K. F. Parkin, Chief Forest Officer for Northern Ireland, Mr. S. M. O'Sullivan and Mr. T. Manning, Inspectors General, Forestry Division. Mr. C. S. Kilpatrick, Deputy Chief Forest Officer, Northern Ireland, Mr. H. Harbourne, Trees for Ireland and Mr. D. Craig, Honorary Auditor for the Society.

After an excellent dinner, the President, Mr. McNamara, called on Mr. Aiken to propose the toast "Forestry in Ireland". Mr. Aiken in his speech said that 40 years ago there was only 3,000 acres of State forests in the Republic. Today the acreage was 400,000 and there was more than 120,000 acres of State owned forest in Northern Ireland.

Because of the problem of getting land, Mr. Aiken continued, our planting rate of 25,000 acres was not likely to be increased. For that reason he thought farmers should be encouraged more and more to avail of the generous grants for private planting. He considered that the daily newspapers could give a better coverage to forest topics and radio and television could all play their part.

He ended his speech by referring to our rising forest industry; the State Forest Service, the private planter and the timber merchants. He said "These are the components which are working together to create a great Irish Industry and I salute all these sectors in offering to you this toast of Forestry in Ireland."

The text of Mr. T. O'Brien's speech appears on page three.

Mr. McNamara, the President, in reply to Mr. O'Brien's speech, said that the Society was formed twenty-one years ago to advance the knowledge of Forestry in all its aspects and in pursuance of this objective they had been listeners to many distinguished lecturers. They had visited woods and forests here in Ireland, in Great Britain and on the Continent of Europe. They went out to see trees growing. They saw trees that were growing well and trees that were not growing so well and they asked themselves why? They argued and compared knowledge and experiences, they listened and learned and were the richer for it all in their understanding of the problems that confronted them in their everyday work.

During its life the Society had seen many changes in techniques and developments. The advent of the plough, techniques of fertilization and the improvement of provenances had made it possible to grow satisfactory tree crops on land which was previously regarded as barren and unproductive. Following up these developments tended towards specialization and the dissemination of this specialist knowledge was a work of great importance and it was possibly in this field that the Society might play its most important role in the future.

He said he wished to thank the Minister for Land and his officers in the Forestry Division for the many courtesies extended to them during the years. Without this co-operation it would not have been possible for them to carry on their work. To the Minister for Agriculture of Northern Ireland and his officers he would also say a very sincere thank you for making them welcome on the many occasions they visited forests in Northern Ireland. Finally to all those who had helped them in their work during the years he would like to express the gratitude of the Society.

An event of the evening was the presentation of a suite of Waterford Glass to Professor Clear as a recognition of the work and service he had rendered to the Society down the years since its foundation.

Mr. Sean O'Sullivan, presenting the suite, said that it gave him much pleasure to make this presentation on behalf of the members of the Society. He said he had known Professor Clear for thirty-three years, when they started their studies in University College together, and he went on to trace the Professor's career from their university days to the present time. He referred in particular to the Professor's work as Secretary and Treasurer to the Society and paid tribute to Mrs. Clear whose capable assistance helped to ease the burdens of these offices.

He also mentioned Professor Clear's many writings for the *Journal of the Society*. And he ended by quoting from an article Professor Clear wrote in the first journal printed. The article "The Thinning of young Conifer Stands" ended thus "Let us keep to sound thinning principles and have patience, about returns. The forester will eventually be judged by the trees he has left, not by those he has removed. So let us hope the woods of the future will be monuments to the present generation of pioneer foresters". Mr. O'Sullivan said that he chose these words because, first, as a forester, he thoroughly agreed with them and all foresters should never tire of preaching them. He chose them secondly as they served as a fitting allegory to the Professor's work for the Society and he gave his version of the quotation, "The man will be judged by what he has left to this Society, not by what he has removed. He took nothing but unwittingly leaves a monument to himself for the present generation of Irish Foresters."

Professor Clear in reply expressed his profound gratitude to the Society for the gesture. He said that he was deeply pleased that his association with the Society should be so appreciated. He also expressed pleasure that the representative of the Society for the occasion should

be Mr. O'Sullivan, an old friend, who had shared with him many of the experiences and pleasures of forestry. He thanked the Society on behalf of Mrs. Clear, who had been a mainstay in helping with the onerous clerical duties that this office entailed. He said that he did not intend to speak at length, but he felt that he must refer to the excellent record of the Society in the achievement of its aims. He congratulated it and its members and expressed a hearty wish for its long and fruitful life.

Illustrated Lecture in Dublin

A highly interesting, though off-beat meeting was held in the Shelbourne Hotel on the 14th December.

Dr. Joseph Raftery, Keeper of Antiquities in the National Museum, gave a talk to the Society on Archaeology. Having been introduced by Mr. M. McNamara, Dr. Raftery told us that the forest had a very significant effect on the lives and habits of the early inhabitants of Europe and Ireland. Four to five thousand years ago man was confined to the river valleys and Europe was divided north and south by the vast trackless forest that comprised Central Europe.

Ireland was a half-way house on the sea routes and so participated in the trade and culture of Europe. The paleobotanists tell us that Ireland was mixed dense forest up to comparatively recent times and movement was along river valleys, sea-routes and above the tree line. The first inhabitants of Ireland came over dry land from north-west France about 9000 B.C. and the pre-Christian population has been estimated at perhaps a half million.

Dr. Raftery showed us a number of slides depicting ring-forts, cromlechs, standing-stones, burial-mounds and other aspects of life on this island over 2,000 years ago. From the birth of Christ onwards the forest came more into prominence as a supplier of raw materials. Wooden ploughs drawn by oxen were used—vessels and shields were made from timber and of course timber was used for building purposes and dug-out canoes were common. Yew wood was used for vessels and other small objects at this time as the art of pottery had been lost. A most interesting series of slides were those showing musical instruments and other objects of relaxation used by the early Irish.

As major users of the countryside, Dr. Raftery asked us for our co-operation in the preservation of things of the past. He suggested that we should combine the monuments of the past with the amenity of the present.

A short question time was, then held—Mr. T. McEvoy, Mr. N. Morris, and Dr. N. Murray, inter alia, contributing. Mr. McNamara then thanked Dr. Raftery for kindly coming along and then closed the proceedings.

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Meeting at Omagh

MEMBERS met at the Royal Arms Hotel, Omagh on Saturday, 29th February. The meeting consisted of three phases. Two indoor discussions on Saturday night, and a field day on Sunday morning.

At 5 o'clock a symposium, "Looking Ahead", was contributed by Mr. R. Busby, Northern Ireland Forest Service, Mr. S. Campbell, Irish Forest Products Ltd., and Professor Clear, University College, Dublin.

Mr. Busby speaking on the theme of "Present Silviculture and Management in Relation to Future Requirements" said, "to examine the role of the silviculturist in the past gives a basis upon which to assess the future of this science in the changing conditions likely to occur. Up to 40 years ago, the silviculturist was undoubtedly the hub of traditional forestry. He was something of a soil expert, entomologist and pathologist, while simultaneously he applied natural laws in his treatment of the forest. He knew his trees and his forest and the more he knew the greater were his refinements, the ultimate being those delightful stem by stem selection forests of spruce, fir and beech in the central mountains of Europe. Here, on what would be a relatively poor site, if cleared of trees, he has had and is obtaining high annual yields of high quality produce.

Then the economist appears. He wants capital. Within a range of growing stock volumes, the increment remains unaffected but with a reduced growing stock the increment per cent. is increased obviously. The excess of growing stock is felled to provide capital which is invested elsewhere, to gain more return than the wood is capable of yielding. Growing stock level, thinnings and rotations are calculated so as to obtain the maximum financial return upon the investment. The old instinctive silviculture has to go, replaced by hard thinking and compound interest.

An F.A.O. estimate of consumption of timber in Europe by the end of this century was 16,000 million H. ft. compared with the 1960 consumption of 6,000 million. It is reckoned that with improved management and techniques, Europe can supply 8,000 million H. ft. for herself, leaving 8,000 million to be imported. This is of significance for the following reason. The economic return of the timber industry is in the processing, not in the growing, of timber. Using Swedish figures, the forest can yield 3% on invested capital. Pulping, paper and paper products yield about 17% return. Thus, countries exporting raw timber are losing the profitable part of the enterprise, and it is logical to assume that there will be an increasing reluctance to export unprocessed material. This will lead to an eventual shortage of timber in its traditional form, with a corresponding increase in price. It is unlikely that this will be reflected back to the timber producer in increased return for this category, but rather will the increased price speed the substitution of other materials in place of wood according to the trends which have become obvious over the past decade. In contrast,

the industries which are based upon the chemical or physical properties of broken down wood seem to have a clear field ahead as far as can be seen, especially the pulp and paper industry. This seems a good investment, but the processing must be carried out in the country where the timber is grown in order to obtain the maximum benefit.

The supply of the maximum quantity of this pulpwood material is thus the challenge to our management, in combination with the economic considerations already discussed. Production cost must be kept to a minimum. Management units will have to be large by grouping existing forests. Yield may even be controlled over a number of management units grouped into a productivity unit. Labour should be highly mobile. In other words, management must be extensive as any intensive management will immediately increase cost, and hence reduce potential return.

How does our management stand in relation to these requirements? We make management plans for small solitary forests. The silvicultural maxims which are used are traditional. Are we managing woodlands to cater for conditions which have disappeared or are fast moving in that direction? Will a normal growing stock on a forest of a 1,000 acres and a variety of species up to 11 inches B.H.Q.G. mean much about the year 2000?

Does the modern forester need to be a silviculturalist to have the feel of the forest, or does he need to channel his skills into other more modern managerial requirements—work study, organisation and labour relations? On the technical side of his business he has experts who can give him the necessary information about how to grow his forest. Specialists can provide him with the mensurational data necessary. The economist can tell him the rotation, the soil scientist—how to treat the soil, the plant physiologists—the exact requirements of a species and the tree breeders—the potential of a variety or clone within a species; and so on.

Is our forestry taking advantage of these conditions which exist for its economic development, looking towards the future requirements which will be demanded of it? Let us consider particular instances from present practice.

Concerned as we have been with afforestation, choice of species is an ever present problem. It is difficult to say how far monoculture can be taken, but it can be said that plantings which produce a stock map of a kaleidoscope of species and mixtures will not meet future requirements as we have forecast them. How about hardwoods? Will there be a demand for any hardwood unless it is of veneer quality, and if not, can veneer quality oak, for example, be grown in this country, or will it pay? We cannot be sure of the answer to these questions but we do know that where one can grow oak there also can be grown highly productive Norway spruce with a fairly sure financial return. Again the result of selective tree breeding, soil analysis and continued work on plant physiology could have a revolutionising effect upon choice of tree species, spacing, fertilization, etc.

Thinning is being looked at in an increasingly critical light, and in fact, certain areas have already been designated, be it tentatively, as "no thinning" areas. The advantages are—low road cost, low maintenance costs, low felling costs—compared with expensive roading and extraction, higher maintenance but early intermediate yield to offset capital investment and so reduce interest charges. It is by no means a clear cut decision; total production may not suffer and stability may not be affected, in fact, may even be improved. Again, do thinning yields always pay for the cost of the operation? These considerations help to put the choice—thinning or no thinning—into perspective. Contrary to traditional thought, no thinning in certain circumstances may well be the best choice.

Again, is too much time wasted on worrying about "how to thin" instead of "how much to remove" in a thinning. The new F.C. Management Tables should help to correct this, but many people still hold to the old conviction and waste time debating the relative merits of low thinning v. crown thinning, etc. As the important aspect in thinning is the quantity to be removed, the most economic way of removing the required volume should be chosen. This may well be by automatic numerical selection.

When considering future requirements I have been concerned only with wood as a raw material. There is, however, a social and recreational requirement which cannot be ignored, especially as parts of our country become increasingly urbanised and industrialised. We are dependant upon the politicians for the grant to forestry and if we are to sacrifice economic considerations for these nebulous, though important factors, we should make it clear to them exactly what we are losing. It should not be too difficult to achieve a happy marriage by setting aside certain areas and managing them for recreation, with production secondary, and distinct from the serious business of providing a raw material which will be, we hope, much desired and of value to our country in the future."

Mr. Campbell in his speech said that the concept of the multiple use of forestry was agreed by all, but when planning for the future the primary objective must be defined and in this country, such objective will be and must be the production of wood products. This being then the main objective, forestry becomes very much an industry. There would seem to be a growing awareness of this and this awareness will increase as the area of our plantations at the harvesting stage increases, reflecting the great potential benefit it can present to the structure of our national economy.

The speaker went on to say that before attempting to look ahead and anticipate the probable future scope or pattern of forest industries here, a brief glance at present day forest utilisation activities must surely be of benefit. Posing the question, he asked, here in Ireland, was the timber trade measuring up to taking its place in a major integrated forest industry and was it showing signs of keeping pace with the efforts of the growers in that it was absorbing the timber becoming

available from the forests? In answer he told us that five factories designed to use forest thinnings were in production in Ireland. Their combined weekly intake was approximately 100,000 hoppus feet. This intake represented the equivalent of the thinnings from an area of 15,000 acres of quality class III Sitka spruce at twenty-five years old. Whereas in the general overall sense, spruce appeared to be the main choice, the major coniferous species were generally acceptable and there was a limited outlet for contorta pine, providing it was of good quality. Thus, relatively speaking, the pulp and allied wood industries in Ireland had over the past fifteen years or so grown quite considerably.

He stressed the fact that over the past number of years, despite rising costs, the Trade had, so far, succeeded in meeting an increased standing price for the thinnings, thus benefiting the growers and reflecting the Trade's capacity for efficiency in operation.

He said that our production forests were of little use, if we have not the markets for their produce and in "looking ahead" the sober realisation of the need for an efficiently run, aggressive industry is paramount.

The speaker in referring to the native sawmilling industry, mentioned that it was steadily improving in its ability to meet demand for sawn timber of high quality, but that, at the moment, the lack of a sufficient and sure supply of suitable sawlogs was a major factor limiting desirable development in scope. On the question of minimum dimensions of sawlogs, he expressed the opinion that in "looking ahead" for the general benefit of the forestry industry here and in avoiding wasteful conversion, which would impair the efficiency of our sawmilling trade, a minimum of 8" B.H.Q.G. seemed desirable.

He referred to the fact that in the case of sawn timber production, wood costs represented $\frac{1}{2}$ to $\frac{3}{4}$ of total production costs and this meant that they had a dominant influence on total costs.

The prospects of future markets looked good, as it seemed, he said, a reasonable assumption, providing we were competitive in both price and quality, that as soon as suitable raw material became available from our forests in sufficient quantities, our native wood could win the existing market in this country for imported wood, which market has a value, that runs into millions of pounds annually. When "looking ahead", the possibility of exports in the future should not be overlooked and there would seem to be strong evidence of a future export market to both Britain and Continental Europe.

Mr. Campbell finished on an optimistic note—that with efficiency at both the producer and processor levels, the future for forestry seemed bright.

Professor Clear also spoke to the theme.*

Following some questions the party adjourned for supper.

* Professor Clear's paper does not appear in this issue as he hopes to expand it into an article to appear in a later journal.

There followed a lively discussion on numerous subjects covering a very wide range of forestry theory and practice. An able panel, comprising Mr. Parkin, Dr. Jack, Mr. Kilpatrick, Mr. McGlynn and Mr. McEvoy, abetted by the president, Mr. Swan, dealt with the questions.

Members then participated in an enjoyable social evening organised by Mr. Dallas.

On Sunday morning the party visited the home and forest of General Moore at Mountfield. After a welcome morning tea, served by Mrs. Moore, the members were given facts on the lay out and purpose of the young forest.

General Moore said that the woods were intended to be a paying proposition, but that some experimental work in conjunction with the British Forestry Commission had been undertaken.

In a brief outline of the estate's history members were informed that it belonged originally to a family called McMahon. In 1872 the estate consisted of 12,000 acres but was broken up in 1880 and the family moved to the shooting lodge; the old house was pulled down. What remained of the original estate was recently bought by General Moore. The present residence was new, as the older lodge was destroyed by fire some years ago.

The property, he said, covered more than one hundred acres. The geological site was glacial moraine over schist ranging in altitude from 250' to 1,100'. Annual rainfall was 50 inches. Exposure increased with altitude.

Today sixty acres are under young plantations. Species were, Sitka spruce and larch primarily, with other conifer amenity trees. Part of the area now under plantation was the site of an exceptional larch stand which had been felled in 1946/7.

Mr. Mitchell, of the British Forestry Commission, had set out a larch genetics trial in which an experimental area of fifty-one plots in three blocks had been laid down. These had been established in 1956-7 and were subsidiary to a similar trial in Wales. They had now reached the end of their usefulness for genetic observations but the problem remained of treating them to gain a worthwhile economic return.

In the experiment, progeny from different seed and pollen parents had been grouped, and their characteristics noted. Favourable and unfavourable traits were compared, for example the absence or presence of twist depending on pedigree or non-pedigree parents. The famous Dunkeld larch had been selected for one set of parents.

Finally we were informed that other species had been selected for landscaping and amenity purposes. *Tsuga*, *Cedrus*, *A. nobilis* and *C. leylandii* were included.

A tour was made of the planted area and sample plots, after which the party returned to the house where Mr. Swan proposed a vote of thanks. Members then returned to Omagh for lunch where the session was officially brought to a close.

G.J.G.