

## THIRTEENTH ANNUAL GENERAL MEETING

THE Thirteenth Annual General Meeting of the Society was held in Jury's Hotel, Dublin, at 7.30 p.m. on Saturday, 19th March, 1955. The President, Mr. T. McEvoy, was in the chair and there was a large attendance of members.

On the suggestion of the President the minutes of the previous Annual General Meeting, which had already appeared in the Journal, were taken as read and were signed.

The President then called on the Secretary to read the Report of the Council for 1954.

### COUNCIL'S REPORT FOR 1954

The first meeting of the Council was held on Monday, 25th January, 1954. Nine members were present. This meeting elected committees to look after financial, editorial and excursion affairs. Arrangements were made for the Annual General Meeting on the 20th March and speakers, including Mr. O'Deirg, Minister for Lands; Mr. A. B. Ross and Mr. O. V. Mooney, were selected to follow Mr. E. G. Richards of the British Forestry Commission, who had been secured as guest speaker. The subject was "Modern Trends in the Utilization of Forest Products."

The Council arranged for a series of day excursions, as follows:

April: To Hollywood Forest.

May: To the estate of Major E. T. T. Lloyd, Roscrea.

July: To Slievenamon State Forest.

September: To the estate of Glaslough, at the invitation of Sir Shane Leslie.

October: To Glenealy State Forest.

The Council agreed to affiliate to the "Trees for Ireland" Association and appointed the Secretary as representative on the Council of the Association.

The second meeting of the Council was held on Monday, 15th March. Nine members attended. The main business at this meeting was the Annual Excursion, which was to be held by arrangement with the British Forestry Commission in the Lake District. The Conservator concerned requested a preliminary visit by a member of the Society to go over the proposed route of the excursion. The Council requested the Secretary to make this visit and to go into the questions of hotel accommodation and transport. The Council also decided to award a travelship, valued at £15 and confined to members of ten years' standing.

A further meeting was held on May 24th. The main item on the agenda was the excursion to Windermere. The Convenor reported everything in order. He also reported that a travelship of £15 had been donated by Messrs. Irish Forest Products, Ltd., and that the prizes had been drawn and awarded by the committee appointed.

Further meetings of the Council were held on Monday, 18th October and on December 10th.

#### MEMBERSHIP

At the end of 1954 paid-up members numbered 48 Grade I, 40 Grade II and 94 Associate. Income from membership subscriptions amounted to £178 5s. 0d. as against £152 in 1953, so that our effective membership improved considerably. The amount in arrears for 1954 against enrolled members was £48 as against £65 in 1953, so there is an improvement there also. The Council feels that the Society deserves more support from technical members. The Society is offering a very excellent service both in the matter of journals and excursions, and the membership rates are the lowest in Europe.

#### JOURNAL

Two issues of the journal appeared and have been widely circulated to countries outside Ireland. Requests for copies have come from Sweden, Norway, Japan, Germany, Russia, Jugo Slavia, Rome, U.S.A.

#### EXCURSIONS

Successful day excursions were held in many venues during the year in Wicklow, Offaly, South Tipperary, Monaghan. 1954 was the most successful year so far for excursions. In a year remarkable for its unfavourable weather the Society's excursions were favoured with excellent weather on every outing. The Council wishes to acknowledge its indebtedness to the Minister for Lands and the officials of the Forestry Division and the private woodland owners for the facilities provided for members on the day excursions held during the year. The Council is particularly grateful to Major and Mrs. E. T. T. Lloyd for the very excellent hospitality enjoyed by members on the occasion of the visit to Gloster, Brosna, Offaly.

The Annual Excursion to Windermere was an outstanding event in the life of the Society. The Society is indeed indebted to the officers of the Forestry Commission concerned with the arrangements, in particular Mr. Barrington, Mr. Chard and Mr. Crosland. The award of a travelship of £15 by Messrs. Irish Forest Products for the excursion is also gratefully acknowledged.

The adoption of the Council's Report and the Financial Statement was proposed by Mr. M. Cosgrave and seconded by Mr. T. Hannan. Mr. E. O Dalaigh also spoke and the motion was unanimously agreed to.

The President, in accordance with the custom of the Society, then delivered his address, reviewing matters of forestry interest.

## PRESIDENT'S ADDRESS

The world situation continues satisfactory. The impetus towards large-scale afforestation in these islands came originally from the two long drawn-out world wars with their shortages of essential raw materials, their transport difficulties, their economic blockades and attrition. It is difficult to conceive of a repetition of this pattern of warfare in an atomic age and consequently there is now less tendency to stress the case for forestry as an insurance policy against war risks. On the other hand there is now a greater realization of the value of timber as a basic and highly adaptable raw material and of the importance of fullest use of the world's natural resources, especially in land. On these sound foundations forestry is achieving a growing and permanent importance in natural economic planning and capital development in countries all over the world.

For years after actual hostilities ceased in 1945 the world timber industry lived in fear of a catastrophic slump in timber prices and stumpage values. The expected has not happened and there is now growing confidence that international prices will hold a reasonable level. The great coniferous exporting areas, Scandinavia and the American Pacific coast, have established high living standards (with corresponding costs) and a return to a price level corresponding to the inter-war "slumping" period is unlikely. There remains, of course, the Russian bogey but it is doubtful if substantial Russian surpluses are likely to be available for European consumption. Other factors which favour the market are increase in world population and improved living standards in undeveloped countries, greater adaptability of processed timber and gradual exhaustion of virgin forests. On the whole the outlook seems set fair for timber producers.

At home, too, the outlook is favourable. In 1939 it would have been difficult to foresee that the exiguous home timber reserves should carry us through six years of war, cut off from imports, and several years of restricted imports; and that now, in spite of all, Ireland should have a higher annual output than pre-war, with more firms, far more capital and modern equipment, engaged in the timber trade. The contribution of young thinnings from the State plantations came along at a crucial moment to make up for the dwindling supply from exhausted private woodlands. Already these new and growing sources have encouraged industrial development of a most valuable type in the manufacture of wall-board for constructional use, and of paper pulp. The value to the State of conversion of low-grade thinnings to such highly processed products at home is in welcome contrast with our export of hardwood in the log before the war. Another encouraging sign is the building up of a useful export trade in wall-board and cardboard in recent years. In progressing towards the goal of forest policy, national self-sufficiency, it is possible that surpluses beyond home requirements of low grade and small size thinnings may become available and an export market for these in processed form may be very desirable.

There have been other successful ventures into the export market also; high-class hardwood strip flooring comes to mind and the rather surprising opening of a market for Irish flush-panel doors in Eastern Canada. There has been a remarkable development of kilns also for the conversion and rapid seasoning of native timber following the lead given by the Forestry Division in this direction. In summary, there is a new confidence in the timber industry, new technical developments in accordance with the changes in supply and demand, and a readiness to invest capital in a big way in the industry.

The future will undoubtedly bring difficulties in equating supply and industrial capacity in our expanding market but the long-term prospects for the Irish timber producers are bright.

The work of afforestation of bare land, and of tending existing plantations, proceeds apace. This winter the State is planting 13,500 acres. The current estimates provide a record sum of close on £1½ millions for forestry. There are now 165 State forests, many of the newer ones being in western counties on peat lands. Early results in these are promising, as members may hope to see for themselves in the coming Study Tour. Success on western peats could lead to a vast change in the economy of our undeveloped areas and new techniques give reasonable hope of success in many cases where failure seemed inevitable in the past.

Altogether we can look back on a good year without any serious forest fire.

#### LECTURE.

After a short interval the meeting reassembled to hear Mr. Hiley's address on "The Thinning of Plantations" which appears in this issue.

#### VOTE OF THANKS AND DISCUSSION ON MR. HILEY'S PAPER.

**Dr. J. O'Donovan**, Parliamentary Secretary to the Government, proposing the vote of thanks to Mr. Hiley for his very interesting and instructive paper, said that forestry was a contentious subject here and the role of pioneer was an unenviable one. When you had something new to propose the first reaction of the people was one of ridicule, then anger, but finally they listened. He was, he said, very interested in the lecturer's suggestion that the age of maturity of the tree could be reduced and he could appreciate what a reduction in the rotation meant in forest economics. In a programme of national afforestation there were social and climatic considerations which you could not control but, nevertheless, you had to keep your feet on the ground and keep the economic side of timber growing to the forefront. A rate of interest of 4 % was adopted here some years ago for our Commercial Accounts, but he recognized that the fixing

of a rate of interest for forestry was very difficult and he did not think the final figure had yet been decided on. The Forestry Vote for the current year was, he remarked, close to the £2,000,000 mark, which was very considerable.

There was, he thought, a tendency in the country to concentrate too much on "area planted" and there was the possibility that the money spent in planting the poorer lands might have been better spent elsewhere. He admitted, however, that at present the accent was on planting. As an economist he recognized that long-term investments can be carried on better during a term of inflation than during a time of stable prices. We were still in a period of inflation and we could take consolation from the fact that there was not likely to be any shortage of money for the next decade or so. Forestry, however, could not neglect or overlook the commercial aspect, especially with regard to thinnings and the suggestion that planned thinning could reduce the rotation was very significant.

**Mr. T. O'Brien**, Secretary to the Department of Lands, seconding the vote of thanks, said that the Society was to be complimented on securing Mr. Hiley as guest speaker.

Forestry has become very much a live subject here and because of its vast potential of produce and labourer it will remain so. Our aim here is to be self-sufficient, to produce all our own timber requirements. Land was the basic commodity and the greatest single difficulty we had to face was land acquisition. Up to the present the State had acquired some 300,000 acres, of which around 240,000 acres were classed as plantable.

As well as new plantings, maintenance of existing crops was also essential and in this maintenance thinning plays a significant part. It is a most important operation and is the sole means of controlling growth and development—all trees cannot reach a final crop. Thinning was necessary and must be carried out to ensure the proper development of the crop, even if no market for the thinnings was available.

**MR. SHARKEY**

Annually, at this time of year, we meet together to hear a talk on some matter of forestry interest, and this year we have been privileged with a lecture which has been among the best ever given here. That Mr. Hiley is an expert on the subject needs no emphasis from any of us, and his very interesting and instructive talk on a controversial subject comes as a timely stimulation—I mean controversial on the point as to how we should thin, not as to whether we should thin at all. As soon as we plant we commit ourselves to thinning.

Our lecture last year was on utilization—this year on the thinning of plantations—quite significant subjects which indicate

that Irish forestry is coming of age so that the scope of our problems has widened beyond that of planting and establishment of successful plantations.

In the matter of thinning one can identify three schools or grades of thought in Ireland. First of all we have those who are long converted to the idea of heavy thinning. We should explain that "heavy" here is used in a comparative sense, as otherwise it might connote a certain reckless approach to thinning which is not intended—in fact I would say that "heavy" here is synonymous with "correct" thinning, as distinct from "light" thinning, which we associate with under-thinning. Those who favour the heavy thinning approach are our forestry "progressives," or, to flatter them—our more "enlightened" foresters who lead the way. They follow Mr. Hiley's line of reasoning at a surprisingly close range.

Then we have the older school, or remnants of it, who follow the "early and often" thinning policy, who at all costs "play safe." Their ranks are being gradually depleted, as the younger foresters follow their more courageous leaders, and lastly, we probably have a third shade of thought which would follow a line of sheer expediency, and if it came to that, would not thin at all.

In Ireland we are not short of opinions and where thinning of plantations is concerned opinions will differ. We have, of course, the disadvantage that as yet we have not lived through a full rotation of any State-planted species. There must surely, however, be the right or ideal thinning approach for each species grown in each of our many different soil conditions in our own special social-cum-economic background. It is only by careful thought and research by men such as Mr. Hiley that we can arrive at that ideal approach to thinning which suits us best from every angle here in Ireland.

One must pause a moment to consider the inevitable pitfalls which the over-simplification of thinning methods may provide. One is tempted to ask where does heavy thinning end and partial clearance commence. All the bad examples of our under-stocked poor quality private woodlands are not always the result of neglected thinning, but very often are the result of over-thinning when financial considerations were the only ones brought to bear by the owner. Neither is it desirable that our approach to thinning should follow a line of regimentation. Foresters would rejoice at a certain degree of standardization, but silvicultural principles can never be ignored, especially in Ireland where there is such a diversity of soil types and site conditions.

Mr. Hiley, no doubt, is fully convinced that his approach to thinning suits the interests of his own estate or of the institution which he manages, and that it fits in with the interests of forestry in England. How would it affect us here in Ireland ?

First of all we must ask ourselves the important question: "What do we want?" Heretofore the ideal in forestry would seem to have been the growing of the "perfect" tree and classical stand of timber. Now Mr. Hiley has himself defined the forester's prime job as being the growing of timber so that the cost of production per cubic foot, including the purchase of land, the planting, tending, harvesting and finally, converting, will compete in price and quality with imported timber. That the role of thinning in the final cost of production is of major importance has been convincingly shown by Mr. Hiley, as indeed the extremes in thinning methods can finally prove the success or failure of forestry as a commercial enterprise.

The first thing we want in Ireland is commercial timber—by this I mean medium-sized logs of 12" to 18" diameter or approximately 10" to 15" quarter-girth. Timely and heavy thinning undoubtedly ushers in our forestry crop to a state of commercial usefulness on a much shorter rotation. In Ireland we can hardly afford the luxury of a long rotation. It may be that as we eventually get well into the handling of commercial timber, when large areas of our forests have reached commercial maturity, that we can then consider growing some of our forestry crops on long rotation, placing more emphasis on quality. Every day the need for getting on to the commercial log is increasing. The smaller log, from 6" to 9" or 10" diameter which heretofore has been finding a use as boxwood, is coming into a lean time, as the timber-box trade is being challenged by substitutes in hardboard and cardboard. The only consolation here is that these substitutes are mostly based on timber itself. The trend is all the time towards the processing and production of synthetic timber, and reduction of saw-bench outlets for the smaller logs. By getting on to the medium-sized log from which constructional timber can be produced, our timber merchants will be gaining gradual experience in the handling and converting of our home-grown timber. Light thinning, except where there are special circumstances, can have little to recommend it from the economic viewpoint. Any of us can go out to-day into plantations up to thirty or forty years old where spruce which has been under-thinned is as yet only yielding low-valued pulpwood, whereas the properly thinned plantation is beginning to yield small commercial timber of a much higher value. Another important point is that heavy thinning enables the forester to keep up with the ever-increasing inflow of plantations in the thinning stage. Can he afford to spend time going over the mountainside every two years? Nor is it economic for the forest staff to handle thinnings otherwise than in bulk, so that every unit of effort gives the maximum output.

All this ties up with the question of markets. There is little encouragement to thin properly if the produce must lie and decay on the mountainside. Here we have the vicious circle—which comes first—raw material or industrialization? Planning comes first, and

with proper planning and understanding between the forestry authorities and those interested in industrial development, industries to use the thinnings will come in time, and in fact to a surprising extent, are here already.

What of quality and size of log ? In fact this is of great importance, as, if we are to ignore quality and think only of quantity our main aims will be sorely defeated. First of all, what quality do we want ? I should say that we do not want classical quality. We do, however, want good quality which will compete with imported constructional timber. It is probable that we will always have to import some of this slower-grown close-grained joinery timber, but this will not be of much significance. I disagree with Mr. Hiley in giving first place to the size of the tree as a quality factor. The prevalence of knots is a far more important factor. The sawn scantling will not easily show what size of log it came from, but it will show its knot-ridden birth-marks. Pruning would, therefore, seem to be an essential associate of heavy thinning. In fact a medium sized log would seem to have many attractions in contrast to the over-sized log. It is easier to fell, to extract and to handle in the sawmills. Moreover, it lends itself more obligingly to the development of mass producing semi-automatic machinery which must be used to convert our timber if we are to compete in price with the foreign product. I think the bandmills in England which use heavy timber depend mostly on hardwoods.

We are glad to hear Mr. Hiley refer to Mr. Gordon Jacob. In fact I am a fan of Mr. Jacob's and I am pleased to say that during the past three years I have visited his mills in North Wales five times. This man is keeping apace with the growing trees in his ideas and methods of converting timber, and I agree with him in his liking for the graded medium-sized log.

To-night's lecture was indeed an important one. The thinning of our plantations is every day coming into more prominence, and each year the acreage thinned increases—during 1954 approximately 9,000 acres were dealt with. At present in Ireland we have 108,000 acres of plantations aged between five and twenty-five years, of which 36,000 acres is between fifteen and twenty years. There is much work to be done and it is only by planning and foresight that the best results will be achieved.

It is, indeed, a great pleasure to be associated with this lecture, and with the vote of thanks to Mr. Hiley.

MR. MOONEY

To follow Mr. Hiley, and Mr. Sharkey, the progressive and the realists, the businessmen and the economists, all of them true foresters but none of them State foresters, presents for me, at least, somewhat of a predicament. Indeed I am a little uneasy

when I consider what adjective might be appropriately applied to my own case under the circumstances. As a State forester, and I do not limit that term to this side of the Irish Sea, I feel that it might be expected of me vehemently to refute a good part of Mr. Hiley's main thesis and maybe, if I was a State forester on the other side of the Channel I might do so as a matter of principle, but having heard the line of thought and opinion expressed by Mr. Hiley I cannot say but that my own experiences in our Irish forests have led me anywhere but to similar conclusions—so I will have to leave principle to the British foresters and another day.

Most of us here have been reared in the old European school of thought the origin of which lay mostly in traditional German orthodoxy which, in turn, was based on the study and experience of the slow-growing conifers S.P., N.S. and S.F. in the continental and the comparatively dry climates of northern Europe. With this as the core of our outlook we have mainly had to deal with the much faster growing and altogether more vigorous development of the Western American conifers and Japanese larch which so far have grown most effectively in our climate.

I believe that experience of results in light thinnings and the keeping of the ground heavily stocked in some, fortunately, small areas of our older stands has already forced foresters here to march in step with Mr. Hiley's ideas in thinning practice. Foresters here have learned the lesson of how the life of their crop may be imperiled by wind-throw. Such mistakes will not be repeated.

It is difficult to prove this assertion in the absence of proper authentic sample plot or stand data from our forests but we are definitely passing beyond the "little and often" rule of thinning if only for practical reasons.

We have some little experience of dealing with stands which are very heavily stocked and neglected but some very successful and daring thinnings have been done in these stands, particularly S.S., J.L. and D.F., without the much-feared retaliation from wind. I have in mind some S.S. stands which, between twenty-five and thirty years, were reduced from their original stocking to some 600 p.a. The resultant effect of such thinnings on the crown development and vigour of the crop, particularly in D.F. and S.S., have been so clear-cut that the experience gained will undoubtedly be applied to the early stages of the much bigger areas of conifer crops arising out of the plantings of the 1930's.

Most foresters are sound qualitative thinners and can be expected to pay due attention to silvicultural needs of the crop, but it seems time that we came away from the state of "your guess is as good as mine" and took definite steps to ensure, by means of numerical thinnings, that we are not frittering away the economic increment of the crop by hesitancy and over-caution.

I am glad to hear Mr. Hiley remind us that our job as foresters is to grow timber, a simple truism, which it seems to me has often become obscured in the indefinite fogs of silvicultural opinion. With young uprising forests as we have, our main object should be to get to the small and medium saw-log as soon as possible, to assess our potential and give the mills of commerce opportunity to gear to the type of timber being produced, the fixing of ultimate rotations may depend on the assessment of growing stock and future supplies, together with the factual adaptiveness of the timber trade. Eventually we must agree that, subject to the over-riding dictates of sound silviculture, we may finally have to adapt ourselves as far as possible to the eventually evolved needs of commercial sawmilling and pulping peculiar to the needs of the country.

The idea of numerical thinning may have quite a few difficulties for foresters in practical application but the very fact that a forester could compare his thinnings with the accepted number of stems per acre to be removed should lead him away from the oft-heard complaint that "I went as hard as I could at the time but I had to go back into it again in two years and take as many again out."

With regard to the British Forestry Commission 1953 Yield Tables, I cannot see us here making much advance on the degree of thinning in E.L. or S.P. gables which, for instance, cite 335 S.P. per acre at forty years and E.L. 159 stems per acre at the same age. We are, however, developing some very openly stocked young S.P. stands, due to the expedient removal of E.L. from fifty-fifty mixtures, having practically pure S.P. at 20/25 years of age and as little as 300-400 stems per acre on the ground at that stage. I am hopeful that some exceptionally well-developed S.P. stands will arise out of this unforeseen turn of events for E.L. is seldom being retained in our once fashionable S.P./E.L. mixtures.

On the other hand I think we might possibly follow Mr. Hiley beyond the British Forestry Commission Yield Tables in their thinning grades for J.L., S.S., D.F. and other fast-growing Western American species.

I have several incidences in mind where S.S. crops have been reduced to 500 stems per acre at twenty-three years and less in third quality in ordinary uninfluenced qualitative silvicultural thinnings without conscious endeavour to meet Dr. Craib half-way. The B.F.C. Yield Tables give 750 stems per acre as the stocking for twenty-three year old third quality S.S.

Our D.F. here has shown remarkably quick reaction to heavy thinning and even with stands where thinning has been neglected foresters are finding that such thinnings seldom result in any remarkable wind damage.

We have talked a good deal about conifers but before passing along I would like to direct attention to the economic potentialities of the commonplace ash.

This tree, if handled properly and thinned heavily, allowing full-crown development after the good undivided first length has been made, will give a very favourable financial reward at twenty years and onwards. Well-grown ash should bid well to outshine many fast-growing conifers as an economic proposition. Strangely, the value and vitality of ash is at its highest in the early years, i.e., between twenty and thirty years in well-grown stands. I refer to trees of from say 4" Q.G.B.H. to 10" Q.G.B.H. or thereabouts which may be used generally for tool handles and sports goods and in particular here, of course, as hurleys. *Proper thinning* is, however, the operative word with ash and it seems to me that it can hardly be effectively grown at stocking heavier than some 100 stems per acre at twenty years. The many and varied other uses for ash in bigger sizes are well known and it is certainly an all-round tree. I do think this point is worth a few moments' meditation for all foresters.

Whilst supporting Mr. Hiley's thesis on the subject of heavy thinnings in general, I think that to myself, silvicultural considerations should always be borne heavily in mind.

For instance, one may see now and again a tendency to very heavy first thinnings of S.S. opening up the ground to the sky in young stands which may only just have overcome their first check and are putting on leaders of 2' or more. Might this not lead to another check? It certainly does lead to a tremendous crop of adventitious shoot clusters and one is led to wonder what effect those will have on the timber strength in the eventual boards which may be sawn from such trees. Opinions differ considerably on the problem of green pruning which is raised by such severe first thinnings.

It seems to me that we should be in a hurry and that we have a perfect right to be so, in order that by bold and effective thinnings we may get on to the timber eventualities of our forestry endeavours and find out all the sooner the proper line of general policy. To prolong rotations in quest of possible uneconomic quality trees appears illogical in our case and uneconomic in the face of the facts and figures and not clearly justified on the basis of good silviculture.

I think, although for most of us this is the first time meeting Mr. Hiley, that in forestry we have known him and honoured him for many years. Hiley's *Forest Economics* may have provoked some unkindly thoughts of the author from some, as it certainly did from me, in the student days, but that did not prevent it, with others of his works, being outstanding text and reference books.

In latter years Mr. Hiley has, by writing and endeavour, kept foresters thinking and going forward just as he has told us to-night of his beliefs which, in the not far distant future, may be accepted forestry practice.

To me it is a great honour to speak with Mr. Hiley and I would like to join most heartily in thanking him for coming amongst us and stirring our thoughts and imaginations in this new and all-important part of forestry practice.

MR. MCGLYNN

It is, indeed, comforting to hear an authority like Mr. Hiley state that "there are many good ways of thinning plantations." He has, of course, stressed the point that each different method gives a different result and his figures in support of his statements are convincing.

All good foresters are naturally anxious to establish good plantations and to produce large quantities of timber; but their methods of approach to this problem may differ.

To-night the emphasis is very definitely on early and heavy thinning of plantations and the production of medium-size saw-logs which are economical to grow, to handle and to convert.

Irish foresters appear to be falling into line—whether by accident or design. Not so much by accident! The idea, I think, has received careful consideration. Most of our plantations are on rather exposed sites, at fairly high elevation, and to make our trees wind-firm we have learned that it is necessary to thin them early and encourage the growth of well-balanced stems. The light thinning methods of our predecessors, as pointed out by Mr. Mooney, have at least taught us a lesson.

How heavily can we afford to thin? Mr. Hiley says we must not expect a quick answer to the question.

Most, if not all timber producing countries have their own ideas—methods—and standards which meet their own peculiar requirements. The treatment recommended by Dr. Craib for fast growing P.I. and *P. patula* in South Africa appears to be coming into favour even with some of our Irish foresters. Green pruning and wide spacing of these pines may be producing the article required in South Africa in an extraordinary short time—but we have little evidence that we can apply these methods to the trees which we are trying to grow here.

I am in favour of artificial pruning of dead branches to a height of about 22" on final crop trees where they are between 4" and 6" diameter, but I am not at all in favour of creating conditions which make green pruning necessary. It is desirable to produce a fair percentage of high quality timber if we are ever to make it popular on the home market—and artificial pruning is necessary and should pay—costly though it may be. Many countries approaching self-sufficiency in timber have rigid grading systems with a considerable difference between the price of the high and low-grade timber—it should then be economical to grow high-grade timber. In this

country, too, we like good quality materials—we are prepared to pay a much higher price for high quality imported timber even when sufficient native timber of a reputedly inferior quality is available. In future, as in the past, I believe that there will be a ready market for good quality timber and I would not like to see quantity being emphasized at the expense of quality.

With proper silviculture I believe that the trees we are trying to grow will continue to put on an economic increment for a much longer period than thirty years and even fifty-five years. Is the timber put on in the later years of the life of a mature tree superior in quality to that laid on in the middle stage—assuming the ring width to be equal? There are, I know, many factors in favour of a short rotation—but there are some against as well. There is the problem of building up reserves for an emergency. There is also the cost and difficulty of establishing two crops instead of one—to quote but a few.

Taking all these important points raised to-night into consideration, I believe we should proceed cautiously, have a long-term plan, giving us at least an idea of what we are striving to achieve; study the various methods of thinning applied by ourselves and others; apply the methods which we consider most suitable; record our mistakes and successes so that our work will not be in vain and make it easier for foresters in future to choose the best method of thinning their plantations when they are faced with their problems—in a different world.

## LIST OF MEMBERS, JUNE, 1955

- Allman, David, Chair Hill, Bansha.  
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 Bayley, Major C. J., Lynduff, Woodenbridge, Wicklow.  
 Boyd-Rochfort, Mrs. Iris, Middleton Park, Castletowngeoghegan, Co. Westmeath.  
 Bayley, Major E. A. T., Ballyarthur, Woodenbridge.  
 Beresford Barrett, H., Crocknaraw, Moyard, Co. Galway. . .  
 Barry, Thomas A., Experimental Station, Bord na Mona, Droichead Nua.  
 Browne, Brigadier Dominick Andrew S., Breaghwy, Castlebar, Co. Mayo.  
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