

Society Activities

ANNUAL STUDY TOUR, 1975

TUESDAY 10th JUNE

A heavy haze shrouded the landscape as the members assembled at Ennis on the morning of 10th June for the 33rd Annual Study Tour and we wondered if the recent dry and sunny weather was nearing an end. Fortuitously, perhaps, our journey to Lough Graney Forest took us by Biddy Early's cottage and as the haze dispersed to let the sun through we knew, intuitively, that the fine weather would continue.

In the shadow of the T.V. mast at Maghera the President, Mr. D. McGlynn, welcomed the members and expressed the hope that the disastrous storms which followed previous visits to Clare by the Society would not be repeated. Our tour leaders, Messrs. M. O'Donovan and E. Larkin, forester in charge Mr. Quinlan and assistant forester Mr. Joyce were introduced. Mr. O'Donovan then treated us to a historical outline of the development of the previous crop and the establishment of the current crop on this rather wet podsolised Old Red Sandstone site.

Originally planted in 1932 on shallow peat at 600 to 900 ft. elevation, the Sitka spruce crop was the show-piece of the Clare coniferous forests with a potential yield class of 280 (Hoppus) over much of the area. Windblow commenced in February 1957 at the lower elevation and was completed by hurricane Debbie in October 1961.

Replanting of the area presented a major problem. Studies indicated a cost of £100.00 per acre for manual draining and mounding because of the wetness of the site and the tangle of lop and top. Mr. O'Donovan paid tribute to his predecessor, the late Brendan Gibbons, who had recognised the difficulty and devised a method of ground preparation with a J.C.B. Operating time was 8 hours per acre at a cost of £3 per hour. At 700 to 800 plants per acre the number was one third less than the then recommendation, but is now very much in line with present day thinking on espacement. Indeed, Mr. E. Johnston was heard to remark that the low stocking would avoid many management problems later on. The crop of Sitka is growing very satisfactorily. At eight years it is, according to Mr. T. Purcell, potentially yield class 24 (metric) over most of the area. The question of future stability of the crop was raised in regard to the method of planting each plant on a 'bucketful' of soil. Mr. P. Verling wondered how the trees would behave on these mounds. Mr. T. O'Keefe queried the adequacy of drainage. Mr. O'Donovan, however, felt confident that the crop would be stable at this espacement. In view of the general agreement on wider spacing the President was of the opinion that our present policy on espacement should be reconsidered. Mr. Mooney, with memories of a stroll in 1938 through the newly planted previous crop still fresh in his mind, obviously felt that wide spacing was not the full answer. He would advocate stabilising zones of hardwoods around the crop perimeter, coupled with wide spacing.

At a higher elevation in the vicinity of the T.V. mast, Mr. O'Donovan drew attention to Sitka growing somewhat unhappily in heather. It was, said Dr. N. O'Carroll, a case of nitrogen deficiency and the remedy was neither simple nor inexpensive. If you kill the heather with 2,4-D you get a temporary response which will disappear when the heather re-invades. His

prescription would be based on current thinking and practice in Northern Ireland; nitrogen at 3 cwt. per ac. at fairly frequent intervals: a costly cure.

Following a most pleasant picnic lunch on the shore of Lough Atoric the Society journeyed to Mountshannon Forest, where Dr. N. O'Carroll explained the philosophy and experimental design underlying current fertiliser experiments. Traditionally, said Dr. O'Carroll, fertiliser experiments concentrated mainly on detecting whether or not a crop responded to a particular treatment, and to a lesser extent in measuring the size of the response. The kind of information obtained is of most value in extreme situations, but is of little value to the forest manager dealing with average crops. Now forestry is much more complicated. The forest manager wants to know the consequences of a range of possible treatments over all possible situations. He wants to know the return from specific inputs, or conversely, the inputs required to give a certain output.

To obtain this information a series of 30 experiments have been established in pole-stage Sitka spruce. The one located in Bohatch Property dates from 1972 and is located in a stand planted in 1928. The particular feature of these experiments which will enable them to achieve the objective is the experimental design used. This is known as the Central Composite Rotatable design and it allows a range of levels of three different factors (in this case N, P and K) to be tested simultaneously. Five actual levels of each factor are used to give fifteen treatment combinations. The initial aim is to derive a predictive regression equation for each site with basal area increment as the dependent variable and the three factors and their first order interactions as independent variables. The next step, Dr. O'Carroll continued, will be to establish correlations between the equation co-efficients and some site factors such as yield class, available N.P.K. etc. This will allow the application of the predictive equation to sites where factors are highly correlated with the equation co-efficients. Using the relationship of volume increment to m^2 basal area increment appropriate to the particular yield class and age, Dr. O'Carroll and Mr. J. Dillon calculated the predicted profit on an input of fertiliser costing £80. Prof. Clear commented that the effect of fertiliser application was often undervalued in the pole-stage crop. One should take cognisance of the price-size gradient. In another context, he felt that this kind of cost benefit analysis could show that it may be much more profitable to plant the "green" land rather than apply fertiliser on poor sites. In reply to a question by the President as to the role of research in this regard, Dr. O'Carroll said that he saw research as a service to management in this the management procedure of the future.

The Society expressed its thanks to Dr. O'Carroll for a lucid explanation of what at first seemed a rather complicated experimental procedure. Some reservations were expressed as to the facility with which correlations between co-officients and site factors could be established but he deserved to be complimented on his approach to the problem. He had, indeed, introduced a fourth dimension into forestry in this country.

A brief visit to the Scariff Chipboard factory showed how sawmill waste and dimension timber can be processed into high quality chipboard. Following some welcome refreshment at the "local" the party returned to Ennis.

P. M. JOYCE

WEDNESDAY, 11th JUNE 1975

Cooler breezes prevailed as we travelled to Mt. Callan estate where Messrs. Robert and Charles Tottenham showed us their extensive Sitka spruce plantations. The President Mr. McGlynn spoke briefly before handing over to Mr. Robert Tottenham who stated that there were two land use options, grass or forestry. A soil pit showed a pretty sticky gley with an unusually friable surface horizon, but Mr. Tottenham emphasised that it would cost well over £200 an acre to drain, lime, fertilise and reseed this type of land. Local letting values were only £25 per acre — which would not repay overdraft interest, thus their interest in Sitka at the growth rates prevalent here.

Mr. Tottenham laid on a demonstration of his ploughing unit — Massey Ferguson twin rear wheel tractor with a modified Ferguson deep digger plough that turned over a very acceptable sod. The planting method demonstrated was removal of a round plug by means of a stabber (a modified daffodil planting tool) and insertion of a Sitka seedling before replacing the plug. Fertilisation rate was 4 cwt. of Gafsa (North African) phosphate per acre before planting with a boost of 10.10.20 around plant at planting time (boost less than $\frac{1}{2}$ cwt./acre).

At the second stop the grass/forestry options were again aired — Mr. Tottenham explaining how Professor Clear gave them the rather revolutionary advice of planting the best land in their 1,400 acre estate first; this they followed, planting 40 to 50 acres per annum. A young plantation at this stop had three lines of Sitka to one line of coastal lodgepole pine. The policy was to remove the latter species at first thinning, or earlier if damaging the spruce.

Stop three was an eleven year old Sitka spruce crop being mechanically thinned. Mr. Tottenham considered early thinning essential and used a straight forward two lines in six system, which made standing sale possible and also enhanced woodcock shooting. It was here that the *raison d'être* of our visit became apparent (apart from the barrel of stout at lunch) when the subject of yield class of this stand was broached. Estimates were asked for and both Mr. Purcell and your diarist gave a guess estimate of 340 (Hoppus). The thinning of such stands was discussed; Messrs Johnson and Moloney of Sligo preferred single lines while Professor Clear stated very forcibly that thinning should have been two years earlier, whether stems were saleable or not, and quoted New Zealand practice. Mr. Mangan voiced reservations about quality due to ring width but Professor Clear countered that two rings to the inch were quite acceptable.

The logical consequence of growing timber is saleable raw material and Mr. O'Donovan spoke of the difficulties experienced in selling standing timber in Co. Clare, despite the geographical proximity to both Scarriff and Limerick city.

The final stop at Mt. Callan was a small plot of Sitka spruce planted in 1961 and reputed to be the fastest growing example of the species in Ireland. This stand was very impressive and we were told that every second line was removed at nine years and 25% of remaining trees thinned in 1974. This plot has already been written up in the Spring 1975 issue of this journal so details are unnecessary — suffice to say that if large areas of similar land could be afforested we would be an important timber producing country in twenty years.

Lunch, pleasantly washed down by a barrel of stout "on the house" was followed by a visit to the Burren country, where we met Jenny

and Michael Neff at Poill na Sallagh. Mr. Neff gave a brief description of the history and flora before we all went botanizing. One could appreciate why genteel young ladies took up this subject at the turn of the century as the combination of sun, sea, rock and flowers was pretty, in the best sense of that word. Near the sea shore we found the common wild thyme, sea pink and kidney vetch all in flower, while slightly inland, *Geranium sanguineum*, one of the special burren species was in bloom. The maiden-hair fern and wood sage were also in evidence and our guides found the blue gentian and mountain avens, *Dryas octopetala* still flowering in a shady hollow.

The final stop was near Grogan's Castle, where we visited the megalithic tombs, and presumably the carolina rose we saw near the tombs has been there for some time.

The President, Mr. McGlynn thanked the leaders and closed the proceedings at the end of one of the more interesting days of the tour.

L. P. O'FLANAGAN

THURSDAY, 12th JUNE

Ennis Forest. Foresters: Messrs. L. Cawley (in charge), P. J. O'Reilly and C. O'Shea.

The first stop may have been designed as a test of our physical condition when we were led across a 12 foot high causeway without handrail to see a square tower, one of the last of its type, built about 1600 as a fortified residence for one of the O'Briens of Thomond. In usually good repair, the exhilarating effect of the top parapet was ample reward for those intrepid enough to climb the stairs.

One of the features of this property is the presence of the rare pine marten, for years in danger of extinction but now to be protected under the new Wildlife Bill. Mr. P. J. O'Sullivan, wildlife forester, described some of his observations on the animal's habits. It eats wild berries and nuts, also small mammals and birds, including their eggs, ("a gastronomic opportunist"). Almost all reports of damage to fowl could be ascribed to foxes, and there was no evidence of damage to lambs by pine martens. He showed us a captive specimen, which obviously did not think much of the company, a feeling reciprocated by any of those who got down-wind of him.

Tulla Forest. Foresters: Messrs. Joe Stapleton (in charge) and M. J. Lynch.

At Monanoe property we saw a species comparison experiment managed by the Genetics Section of the F.W.S. Research Branch. Mr. Michael Forde (Research Forester) gave us some indicated yield classes for these species planted in 1963 on this site with its shallow soil and outcropping limestone. These were: Sitka spruce 24 (Metric), Douglas fir 22, Norway spruce 20, Corsican pine 14, Japanese larch 12 and Scots pine 12. Unfortunately, because of their high value for winter grazing, these sites are no longer becoming available for forestry.

Craggaunowen Project. This project, when completed, will consist of a restored castle, replicas of a crannog (lake dwelling) and a ring fort, and a museum. The crannog is completed, and the work on the ring fort, now under construction complete with souterrain, was described to us by

Mr. Jim Bourke of the Shannon Free Airport Development Association. These reconstructions, while no doubt highly valuable from the tourism development point of view, and perhaps also educationally, are sadly lacking in that unique but distinctive "atmosphere" associated with genuine antiquities, no matter how dilapidated. They bear the same relationship to the genuine article as do the modern office blocks with fake facades to the Georgian houses they have replaced in Dublin. You can take them or you can leave them. I prefer the latter course.

Lunch was taken in the grounds of the former Cullaun House, built 1799-1802. In 1828 Daniel O'Connell spent some time here to obtain a residential qualification for election to Parliament. The last inhabitant died in 1954 and three years later the Land Commission acquired the estate. In 1960 the house and some land passed to the Forestry Division, and now the shell of the house is open to inspection.

Cratloe Forest. Foresters: Messrs. Donal Keohane (in charge), and John O'Shea.

The main block, now mostly conifers, was formerly covered by the famous Cratloe oakwoods, some of whose timber, it is said, was used for panelling in Westminster Abbey.

The discussion centred on a block of Japanese larch, of low productivity, and the problems of replacing it. Clear-felling would be objectionable to amenity fanatics because of its position above the main Limerick-Shannon road. It must be stated that much of the ensuing discussion was inaudible due to the size of the group, the lack of any firm chairing of the proceedings and the absence of amplifying equipment. Once again the discussion turned to the marketing difficulties encountered in the region. At least some of the blame was ascribed to our centralised marketing system and its virtual exclusion of the small local buyer.

Following the closing addresses the group returned to the West County Hotel, Ennis, for the Annual Dinner, the quality of which was well up to the standard to which we had become accustomed during our stay at this hotel.

N. O'CARROLL

PARTICIPANTS

"A". Dan McGlynn (President), Michael O'Donovan and Eamonn Larkin (Tour Leaders), Lily Furlong and Fergal Mulloy (Meetings Committee), Professor Thomas Clear, Maureen and Myles Cosgrave, Michael Costello, Peter Crowe, Charlie Crowley, Jim Crowley, Jim Dillon, Frank Drea, Martin Duggan, Donald Eastwood, Gerry Farragher, John Fennessy, Mick Forde, Seamus Galvin, Dr. Padraig Joyce, Ernest Johnston, Harry Kerr, Tommy Luddy, Ted Lynch, Bob McConnell, Andy McClean, Michael MacNamara, Dermot Mangan, Tony Mannion, Benny Moloney, Emma and Owen Mooney, Brid Morrissey, Michael O'Brien, Dr. Niall O'Carroll, Liam O'Flanagan, Paddy O'Malley, Martin O Neachtain, Tom Purcell, Jim Quinlivan, John Ryan, John Twomey, Dan Walsh, Con Warren, Harry van der Wel.

"B". Dan Brassil, Arthur Buckley, Seamus Carew, Larry Cawley, Joe Corbett, Tony Crehan, Noel Cullinan, Anthony Daly, Mick Davoren, Andy Duffy, Michael Flannery, Pat Flynn, Paddy Giblin, Mick Hennessy, Joe Kilbride, Sean MacNamara, Noel Manning, Matt Moroney, P. J. Murray, Tony O'Keefe, Bill Quirke, Dan Scannell, Joe Stapleton, Alicia and Charles Tottenham, Geoffry Tottenham, Jane and Robert Tottenham, Jim Vaughan, Paddy Verling.