

## *Society's Activities*

### Day Excursion to Delgany Forest

25th April, 1964

DESPITE the poor weather, a party of some 20 to 30 members gathered at Newtownmountkennedy on April 25th, 1964, and moved on to the forester's house. There Mr. J. Doyle, Forester in Charge, welcomed us on behalf of the Minister for Lands. Mr. M. Swan, President, expressed the Society's appreciation for the facilities offered by the Minister.

The party moved on, led by Mr. G. Gallagher, leader for the day, to the first stop. Here Mr. Doyle commented on the history of Mount Kennedy Demesne, ruled by some unsavoury landlords in times gone by. Of main interest was a stand of *Pinus radiata* (P. 1951) green-pruned by Mr. Doyle in 1961. Figures for eight trees showed them to have a B.H.Q.G. averaging  $5\frac{3}{4}$  inches which, at the time of pruning, stood at  $3\frac{3}{4}$  inches. Although not designed as an experiment, this trial showed that *Pinus radiata* could stand green-pruning at an early age. The desirability of early green-pruning in such a coarse-branched species was discussed.

A stop made by a 13 year old ash stand brought up the frequently made comparison of growth between conifers and hardwoods. Mr. O. V. Mooney recommended that ash might be treated in a manner similar to poplar by planting at  $12 \times 12$  feet and following up with intensive treatment. The attractive price available for hurley-quality ash should be an incentive to further thoughts on the species. In discussing the comparative values of mixed conifer-hardwoods stands and monocultures Mr. T. Mc Evoy suggested the use of a mixed group forest as a workable solution.

As Norway spruce had been mentioned in relation to the ash — both in terms of mixtures and to compare them — we made a brief stop in a nearby stand of 13 year old *Picea abies*. The ultimate value of the stand was hard to assess as  $\frac{2}{3}$  of the height growth had occurred in the last six years. Some unknown factor (frost, perhaps?) had detrimentally affected growth in the first seven years of the plantation's life.

Being on the subject of hardwoods and (or verus?) softwoods we made a fourth stop where there were hardwoods in a matrix of conifers, the mixture being: *Picea abies*, *Thuja plicata* and *Castanea sativa*. Mr. T. Moloney commented on the difficulties of maintaining such cultures and considered this effort a loss essentially. To this Mr. G. Gallagher suggested that we could afford to lose some increment for amenity purposes. So another favourite topic was batted around

—hardwoods and amenity forests, their worth and the sweat lost to make them work.

The major stop of the day was in a further stand of *Pinus radiata* in which a permanent sample-plot, including an experiment, was laid down by the Research Branch of the Forestry Division. Mr. Mooney opened the discussion by giving us the background to the rise of *Pinus radiata* from an insignificant indigenous species covering 10,000 acres of Californian coastline to a species of considerable importance as an exotic in many lands due to its phenomenal growth in moister climates. Use in this country has been limited by establishment problems and its susceptibility to cold winter winds. Doubts have also arisen as to its ultimate value due to coarseness in branching, which may be relieved by pruning but that course would also curtail growth. This was the reason for the experiment, the main object of which was to determine the depression of current diameter and height increment that varying degrees of green-pruning produce in the species.

Mr. G. Gallagher went on to give us details of the establishment of the experiment on this moderately sheltered, westerly slope. The area was planted in 1951 at 6 × 6 feet spacing. At last measurement top height was 35 feet and the average for the crop 31 feet with corresponding B.H.Q.G.'s of 6¾ and 4 inches. The plot was laid out in 1963 and consisted of 120 trees in a fully randomized experiment with 30 trees in each of four treatments, *viz.* control, 25%, 45% and 65% live crown removed. These prunings resulted in average pruning heights of 12, 18 and 25 feet respectively. Pruning intensity was obviously very high in the latter treatment and already the effects of pruning on the growth of the stand could be noted. The relationship between DBH and per cent live crown removed was curvilinear, falling sharply at the highest intensities while that between height growth and crown removed was linear with a less marked reduction in height increment due to pruning. Mr. Gallagher commented that up to 30% of live crown could be removed without suffering more than a 10% loss in diameter increment, nor would 25% crown removal occasion more than 10% loss in height increment, which means that, for the stand in question pruning could be carried up to 15 feet at 13 years of age with but a slight loss in increment which would be more than compensated for by improvement in quality.

The ensuing discussion mainly concerned the ultimate use of the species here. In enquiring whether this rapidly-grown timber would conform to specification, Mr. D. McGlynn raised the question of the effect of ring width on timber quality. The problems of establishment and maintenance of vigour in this species were considered, being probably the greatest deterrents to wider use of *Pinus radiata* in Ireland. Mr. L. Gallagher commented that the lower live branches of certain trees have been found to be parasitic, drawing off nutrients while themselves contributing nothing to the growth of the tree, and that

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nutrient studies of trees in this type of experiment could yield results of value in elucidating further the nature of tree growth.

On our return to Mr. Doyle's house we had a welcome cup of tea which cheered our spirits, somewhat dampened by the weather, and the excursion broke up after Mr. Swan conveyed our thanks to the Minister and to Mr. Doyle for the facilities enjoyed by the society.

L.U.G.

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