# Society Activities

## SOCIETY OF IRISH FORESTERS TOUR

#### 24th-26th May, 1983

## SOUTH WICKLOW - NORTH WEXFORD

#### President: N. O'Carroll.

## Conveners: J. O'Driscoll and M. O'Brien.

In his opening remarks, N. O'Carroll (President), commented that this was the 41st Annual Study Tour by the Society and he was pleased that this outing of the Society was still going strong. On the first day stops were planned for Coolgreaney, Gorey and Camolin forests.

At Coolgreaney Forest the party was met by M. Sheridan (Divisional Inspector), C. O'Driscoll (Forester-in-Charge), and P. Noonan (Forester). Members viewed and discussed the future of a stand of sessile oak which had been planted in 1840. It was described as being of low yield class (4) but this may be misleading due to selective felling at an earlier stage. Most people agreed that the crop should be retained for some time and that it would put on valuable increment. Arising from this discussion there appears to be a need for a definite policy relating to the proportion of hardwoods to be planted in the future and the treatment of such crops in general. In the same forest the party visited the first stand of Sitka spruce (p 1959, YC 16) to be line-thinned in Ireland. One line in three was removed in 1970 and selection thinnings were removed in 1977 and 1982. It is proposed to thin once more and then clear-fell. The crop has not been pruned and was described as being rough. It was suggested and refuted that there may be a premium of 10% for high pruned crops. A general discussion developed in relation to damage to crops during harvesting operations. Participants identified root damage by large machines and rot due to harvesting by horses as being prime causes of timber loss.

G. Murphy (F.I.C.) and A. Grehan (Forester) welcomed the tour party to Gorey forest where M. Carey (Research Branch) has established a fertiliser trial in a 24 year old ash stand. The soil was described as wet and heavy. Some concern has been expressed as to the quantity of ash in the country. We were informed that there are 6827 hectares of this species, much of which is in private ownership. The ash trees have responded well to fertiliser treatment and there has been a big increase in foliar phosphorus content. However, it was remarked that the crowns were cramped and that the stand should be thinned. The most important facts to emerge from the visit to this stand was probably our collective ignorance of the silvicultural treatment of ash. Since such a substantial proportion of the ash stands in the country are privately owned there appears to be a good case for co-operation between the Forest and Wildlife Service and private growers to investigate the growing of this important commercial species.

After a pleasant lunch at Camolin Nursery, V. O'Connor (District Inspector) and I. Booth (Assistant District Inspector) conducted the party to a variety of sites in the forest. A. Pfeifer (Research Branch) discoursed on the tree breeding programme and on seed production in a lodgepole pine orchard. It transpired that the Forest and Wildlife Service is now self-sufficient in lodgepole pine seed and that approximately 30% of this seed now comes from seed orchards. The potential genetic gain from such seed is estimated to be 25%. This gain will be greatly increased following progeny testing.

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J. O'Dowd demonstrated the procedure involved in controlled pollination. There followed a discussion on the possibility of Monterey pine becoming an important commercial species in Ireland. The opinion was expressed that establishment problems experienced with this species can be overcome by using containerised planting stock. Yellowing may be somewhat more difficult to overcome but a selection process is being undertaken in an attempt to produce stock which does not exhibit this defect. It seems that plants grown from seed collected in Ireland give a high proportion of trees which do not exhibit yellowing. If these problems can be overcome, it appears that Monterey pine may become an important commercial species suitable for planting in sheltered areas and on a range of site types in Ireland.

Society members were next taken to a site where Douglas fir (Yield Class 14, Age 61) and pedunculate oak (Yield Class 4, Age 111) were growing side by side. Local management made the point that the Douglas fir, managed for pole production, would yield two rotations of 900 poles and a gross revenue of £50,000/ha. Over the same period the oak, which was of poor quality, would give a total volume of 500m<sup>3</sup> and a gross revenue of £10,000/ha. Most participants were of the view that the oak should be clearfelled. Majority opinion was that the site should be replanted with oak but with an emphasis on quality of seed, planting and silviculture.

Because of a reduced planting programme and increased espacement at establishment most Forest and Wildlife Service Nurseries have surplus acreage for nursery stock production. Such ground in Camolin is given over to noble fir Christmas tree production at one meter spacing. Mr. J. Brosnan (Utilisation) stated that noble fir is rapidly replacing Norway spruce as the Christmas tree. However, as with decorative foliage production, the silvicultural regime under which these trees are produced is critical. Espacement, rate of growth and colour are important factors in determining the quality of both trees and foliage although there are indications that colour in noble fir may be genetically controlled. Trees of the blue variety are being selected by Forest and Wildlife Service staff in order to initiate a breeding programme. An alternative species for these markets may be Caucasian fir. The prospects for greater use of this latter species are currently being examined.

At Bunclody forest on the second morning, local management staff including S. Quinn (Divisional Inspector), V. O'Connor (District Inspector), M. Swords (Forester-in-Charge) and M. Conway (Forester) showed the party some unthinned crops of lodgepole pine. These crops are quite unstable and are to be clear-felled. The discussion centered around a replacement species and this was clearly answered at the next stop where we saw some excellent Sitka spruce on the same soil type. Die-back and unthriftiness in some lodgepole pine plantations is causing concern at the present time. Some crops have become seriously defoliated and are stagnating. D. Ward (Research Branch) stated that a possible causitive organism was *Ramichloridium*, a fungus isolated from similarly infected trees in Scotland. D. O'Brien explained to the group that the optimum clear-felling date for these depends on the performance of both the existing and successor crops.

In the afternoon the group was welcomed to Deacon's Sawmill (Ballon) by Mr. J. McNamara and Mr. Deacon. A long discussion developed concerning the merits of Irish timber, the export market for sawn produce, residue disposal and the drying of lumber. All present were impressed with the efficiency of the mill and the commitment of the management to Irish forestry.

Mr. Moran (Forester-in-Charge) welcomed the party to Shillelagh forest where E. Hendrick presented details of an experiment designed to elucidate various problems associated with reafforestation. The experiment is only three years in existence, but the indications at present are that cultivation of acid brown earths is of no great advantage. Clearing of brash removes substantial quantities of nutrients from the site. The most striking feature of the experiment is the reduction of height growth in areas where lop and top has been cleared. Another notable feature is the profuse growth of *Ulex galii* in the cleared plots.

The morning of the third day was spent at Tinahely nursery where T. O'Brien (District Inspector), J. Neilan (Forester-in-Charge), P. O'Halloran (Forester) and K. Donnelan (Forester) showed the party some of the excellent development work which is being undertaken in nursery practice. Great interest was expressed in the precision sowing of pelleted seed. This system has not yet been perfected, but may be viable if high quality seed is used. G. de Britt (Nursery) informed the group that there is now a significant demand for larger plants for reafforestation purposes. D. McCarthy (Research Branch) outlined details of a soil survey carried out in Forest and Wildlife Service nurseries. This survey indicated that the pH of nursery soils may be decreasing and that while the levels of most nutrients may be slightly low in most nurseries, the deficiency of phosphorus in most nursery soils gives some cause for concern. In view of the low pH values of most nursery soils there may be a case for switching from soluble phosphatic fertilisers to G.R.P. A. Pfeifer (Research Branch) demonstrated the effect of side pruning, undercutting and wrenching upon plant root morphology and gave a very impressive demonstration of container systems and planting tools, E. Hendrick (Research Branch) commented that survival and performance of containerised plants in the field was quite high after three growing seasons. However, bigger containers appear to give the best results and survival of plants grown in plastic bullets is quite low. Finally, D. Ward (Research Branch) and D. Dunne (An Foras Talunais) described the disease cycle of Phytophythora cinnamomi and the necessity for a phytosanitary policy.

At Rathangan forest the tour party was joined by S. Quinn (Divisional Inspector), P. Doody (Forester) and S. Maguire (Divisional Engineer). The construction of a reversal road was viewed and discussed. This type of road construction is usually adopted where the removal of peat would create a drainage problem or where large spoil heaps along road sides render extraction difficult. To facilitate this type of construction a tree clearance of 15.5 metres is necessary to give a formation width of 5.5 metres and a depth of fill of 700mm. The average cost is about £12/metre. The average cost of ordinary road construction would be greatly in excess of this. However, reversal road cannot ordinarily be constructed where depth of peat exceeds 2 metres.

The final stop on the tour was at Avoca forest where C. Doyle (Forester-in-Charge) and T. Lynch (Research Branch) demonstrated the effect of thinning intensity upon general crop growth. This experiment has demonstrated that heavy thinning, (removing approx. 80% of Yield Class), increased diameter growth, shortens the rotation length by about 10 years, produced more timber in the large sawlog category and gives a volume loss of 40-60m<sup>3</sup>/ha. Economic analysis shows heavy thinning to be more profitable.

#### Tour Participants

N. Browner, L. Collon, E. Collon (Mrs.), T. Cormican, M. Cosgrave, M. Cosgrave (Mrs.), A. Finnerty, J. Gardiner, G. Hipwell, D. McAree, D. Mangan, L. Moloney, M. Newman, N. O'Carroll, J. O'Driscoll, J. Phillips, R. Tottenham, J. Tottenham, T. Boland, I. Booth, J. Brady, J. Brosnan, M. Davoren, M. Donnellan, M. Doyle, P. Drea, J. Fennessy, J. Finlay, G. Gallagher, E. Griffin, P. Helbert, E. Hendrick, P. Howell, R. Jack, R. Keogh, J. Kilbride, T. Lynch, D. McCarthy, M. MacSiurtain, O. V. Mooney, D. O'Brien, M. O'Brien, J. O'Connor, C. O'Donovan, J. O'Dowd, J. O'Driscoll, T. O'Regan, J. O'Sullivan, T. Purcell, S. Quinn, A. van der Wel, M. Carey, P. Doolan, G. Murphy, T. O'Brien, J. Fanning, P. O'Donoghue.