

Visit to Baronscourt and Lislap Forests West Tyrone District

ON Sunday, 27th August the Society visited Baronscourt and Lislap Forests in the District of West Tyrone.

The party assembled at Baronscourt Sawmill where the members were welcomed by Mr. Parkin, Chief Forest Officer, on behalf of the Northern Ireland Ministry of Agriculture, who also introduced many well known foresters who at one time or another had connection with Baronscourt Forest; these included Mr. Phillips, District Officer, Mr. Kerr, Forester and Mr. Wright the former District Officer who was about to leave the district and was the main organizer of the tour.

Before starting Mr. Wright and Mr. Kerr gave a brief history and description of the forest, illustrated by maps of the area. Baronscourt Forest covers an area of 3,010 acres and consists mainly of well established woodland. It is naturally divided into 4 blocks of varying size and the entire unit is 'U' shaped, open to the north. The 'U' lies on the sides of a shallow valley in which is situated portion of the Baronscourt Estate of the Duke of Abercorn. Much of the present forest was established on fairly good agricultural land, the remainder being park land and old woodland. The soil consists of deposits of sand, gravel and boulder clay over-lying mica schist.

Rainfall is average (38-40 inches) for this part of Northern Ireland. Frosts are common and snow slight on the lower regions. Winds, however, are generally strong, despite apparent shelter. This is possibly due to a funnelling effect caused by the local topography.

The percentage of each species planted is approximately as follows :

- 80% Sitka spruce.
- 7% Douglas fir.
- 5% Japanese larch.
- 8% Other species (including Scots pine and *Tsuga*).

On the night of the 4th February, 1957 approximately 200 acres of the forest were devastated by heavy gales. In October 1959 a further 250 acres were windblown. The total area blown is, therefore, about one-sixth of the planted area.

A detailed working plan was prepared for this forest in 1960 and the area has been under controlled management since that date.

The first stop was at Compt. 213, a Sitka spruce crop planted in 1923, the edge of which had been blown in 1953. The gap has been gradually increasing since then. After the first clearance of the wind-blow the heather came in. The windblow has obviously made possible the present natural regeneration on the area.

Here also a large area of Sitka spruce which had been blown in 1959 and 1960 by a north-west wind, although the prevailing wind is south-west, was seen. It was here pointed out that no wind resistant

effect was apparent from a mixture of Sitka spruce and Douglas fir, a stand of which had been blown.

A most interesting feature of the tour was the "Eclectic method" of crown thinning seen when the party stopped at a stand of Sitka spruce P.42 and P.43, where this treatment had been recently carried out.

Mr. Parkin introduced Mr. Clarke, Production Officer, an enthusiast of this method of thinning, who outlined the aims and the procedure adopted in the practice of this treatment.

The first stage in this Eclectic method of crown thinning is to select 40 to 50 final crop trees per acre. These are then pruned to 16 feet or 18 feet and at a later stage to 25 feet. All these spot trees should be dominant in the upper canopy and the emphasis was on side light. The aim was to remove all co-dominants, eventually isolating the crowns of the selected trees and leaving the smaller sub-dominants as followers. These grow vigorously enough to adequately suppress all vegetation coming in as a result of the removal of the heavily crowned co-dominants.

En route to the next stop a forest village was pointed out. Barons-court village comprises 24 houses and was this year winner of the Certificate of Excellence for the best developed site of more than two houses in Northern Ireland. It was apparent from the well-kept gardens and lawns and general neat appearance of the village that the award was well merited.

At the next stop two stands of *Pinus contorta* were seen :

I.	Compt. 236.	P.30.	Altitude 450'.
	No. of stems		420 per acre.
	Top height		58 ft.
	Mean B.H.Q.G.		5½ ins.
	Basal area		84 sq. ft. per acre.
	Volume		1,802 H.ft.
	First thinned		April, 1961.
	No. of stems removed		180.
	Volume of thinnings		329 H.ft.
	Total yield to date		2,131 H.ft.
II.	Compt. 237.	P.36.	Altitude 450'.
	No. of stems		660 per acre.
	Top height		39 ft.
	Mean B.H.Q.G.		4 ins.
	Basal area		73 sq. ft. per acre.
	Volume		1,038 H.ft.

The first stand was thought by Mr. Mooney to be a Washington coast provenance and he commented on its vigour of growth and level branch development. The latter stand he said was probably of British Colombia origin and had given a performance much better than any stand of this provenance grown on a site of similar fertility in the South.

During the course of this stop Mr. Parkin introduced Mr. Roy Faulkner, a geneticist from the British Forestry Commission, who for the previous three weeks had been examining stands throughout Ireland with a view to selecting plus trees of *Pinus contorta* from which scion material would be collected for the establishment of seed orchards.

Mr. Faulkner then demonstrated a *Pinus contorta* plus tree which had been previously selected and gave a brief summary of the main characteristics required in such trees.

The principal attributes of a plus tree he said were : that it should be vigorous; that the stem should be straight and free from forking; that the crown should be dense and the branches relatively short and horizontal.

Mr. Faulkner said that the main objects of his survey were : to select seed stands; to select individual plus trees and to carry out progeny tests for the selection of the best seed trees; also to cross good coastal types with outstanding inland types and to establish seed orchards having 20 to 30 different clones.

Lislap Forest.

After lunch the party proceeded to Lislap Forest where Mr. Parkin introduced Mr. Fotheringham, the forester.

Lislap Forest covers a total area of 3,525 acres comprising two main blocks, Lislap and Glengawna. The area still to be planted is 300 acres and the planting programme is scheduled for completion by 1964.

At its most northerly boundary the glen formed the spill area of one of the largest glacial lakes in the British Isles. The area is covered with glacial deposits of a schistose type and this is overlain with deep peat.

Rainfall is approximately 45 inches. Frosts are severe and prolonged in most hollows on the higher slopes. The higher slopes also suffer exposure from the prevailing south-west winds.

The species planted are approximately as follows :

Sitka spruce	80%.
Larches	8%.
Other conifers	12%.

The fire danger to this forest is very severe and it is one of the most dangerous areas in the province in this respect. Approximately seven miles of its border is a danger area consisting of heather covered lands, mainly used for sheep grazing. In 1947 over 200 acres of well established forest were burned.

At Compt. 56 an area of 18 acres was visited. This had been planted in 1940 mainly with a *Pinus contorta*/Sitka spruce mixture which had at the moment reached various stages of development. In some areas the Sitka spruce had been completely suppressed by the *Pinus contorta* while in other areas the opposite was the case while yet again *Pinus contorta* and Sitka spruce were observed growing uniformly in mixture.

The main theme of discussion concerned the various treatments (mainly experimental) which had been applied to the crop in order to relieve the Sitka which was in danger of being suppressed by the *Pinus contorta*. This course was adopted due to the fact that there was an unlimited and growing market for Sitka spruce material while there was practically no market for the *Pinus contorta* at the moment.

Where the Sitka spruce seemed likely to come away if given enough light, the tops were cut off the *Pinus contorta* about three or four feet above ground level allowing the branches to remain on the standing portion of the *Pinus contorta* stem in order to suppress the heather. Where there appeared to be less possibility for the retarded Sitka spruce, the centre portion of the stems of adjoining and overshadowing *Pinus contorta* were brashed, to relieve the Sitka spruce by allowing the necessary light to infiltrate. In this case also, the lower *Pinus contorta* branches, which were not competing with the Sitka spruce, were retained to suppress the heather. In both cases the branches and tops removed were used to mulch the Sitka spruce.

At the next stop an area of checked Sitka spruce was inspected. This area was planted in 1927 and beaten up in 1929. At the moment total height is not more than 4 ft.—5 ft. and a discussion arose as to the future treatment of the crop.

Some experimental treatment had been carried out over the area e.g. pulling the heather and mulching the plants with it but this proved rather expensive and was not very successful. Nitro chalk was also applied but this was not a success. The placing of the spoil from deepened drains around the plants proved to be the most successful treatment carried out on the area.

Mr. Parkin expressed the view that the heather competition caused the check. He said that a good response had been obtained from the application of nitrogen and phosphates in other areas.

Mr. Phillips said that on a similar site the use of hormone weed killer had been very successful on heather, the cost being 25/- per acre for labour and material. He also said that Paraquat which was very satisfactory for the control of grass might be recommended.

A short stop was made at Glengawna Property where an area was being prepared for the 1962 planting programme. Here a tine plough was being used as a preliminary operation to ploughing, with the Beggs plough. The aim here was to have the ploughed ribbon inverted on the lines made by the tine plough, thus producing better medium for root stability and drainage. This tine plough is normally attached to a tractor which has a four-wheel drive for use in soft ground.

On returning to the yard the party were given a demonstration of fire-fighting equipment and the members were shown a chart depicting the three fire control sections into which the forest is divided, with their three controlling watch towers, which are placed at strategic points on the hills overlooking the forest. These are linked to the main

forest office by a telephone communication system. On this chart also were marked the positions of the fire dams, 8 ft. $\times$ 8 ft. concrete structures built at convenient points on streams.

Mr. Fotheringham demonstrated the use of a mist spray fire pump which was mounted with its water tank on an Austin Gypsy. The main characteristic of this pump is that it produces a cooling effect, by developing a fine adjustable spray, while giving a low output of water and takes about three-quarters of an hour to pump 45 gallons.

Professor Clear, President of the Society, thanked all those who made the tour so enjoyable and such an outstanding and memorable occasion for everybody. On behalf of the Southern members he congratulated the foresters of the North on the management of their forests and on their handling of the tour.

M. MacG.
