Excursion to Castleshane

14th June, 1964

THERE was a good attendance of members at the day excursion to Castleshane on Sunday the 14th June. Mr. Breslin welcomed the party on behalf of the Minister for Lands and introduced the Forester, Mr. Dooley. In outlining the history of the estate he told us that the lands originally belonged to the Lucas family. The Department, he said, entered the scene in 1931 when it bought the estate comprising 270 acres. At present there were 80 acres of hardwood and 190 acres of conifers.

The first plot we visited consisted of oak and elm. A third species, namely Japanese larch, had been originally planted with the oak and elm but had been gradually taken out and was now all removed.

PLOT I.

COMPT. 5 — STAND I — 8 ACRES P/35.

Area of plot — 1/10 acre (circular)
Total number of final crop trees — — 140 per acre.
Total number of supporting crop trees — 270 per acre.
Species — Oak, Elm and Sycamore.

PLOT DATA

Final Crop Trees	*Number*	Timber height	Mean Q/G	Basal Area	Est. M.Q.G.	Vol. per pole	Total Vol. Plot	Vol. per acre
Oak —	8	16 ft.	5½″	1.78	5″	2.78	22.2 c.ft.	222 c.ft.
Elm —	6	12 ft.	4¾″	.98	4½″	1.69	10.0 ,,	100 c.ft.
Supporting Crop								
Oak —	12	12 ft.	4″	1.34	4″	.89	10.55 ,,	105 c.ft.
Elm —	13	8 ft.	4¼″	1.72	4¼″	1.0	13.0 ,,	130 c.ft.
Sycamore	2		3¼″	.17	3¼″	.6	1.2 ,,	12 c.ft.
TOTALS	41			5.99			56.95 ,,	569 c.ft.

Basal Area of Final Crop trees per acre — — 2.76 sq.ft.
(expressed as a percentage of total b/a) — — 46%
Total present Volume of Final Crop trees per acre — 320 c.ft.
as a percentage of total vol. per acre — — 56%

pH of soil			
	Surface	—	5.0
	3″	—	5.0
	12″	—	4.2
	18″	—	4.5
	24″	—	4.2

In reply to the question as to why plant Japanese larch at all, Mr. Breslin said that it was a good nurse tree for elm in its early years and also one got good revenue from the thinnings. Mr. Finnerty, who was the forester here for some time, said that in 1950 most of the Japanese larch had been removed and the hardwood crop looked to be in very poor shape. He carried out a weeding of the poorer stems and planted silver fir and Sitka spruce in the gaps. He added that he considered it nearly a miracle that the crop recovered to the condition it was in now. Mr. Mooney said that there was low stocking compared to what was normal, but yet basal area was high and we had now the position where the crop could put on rapid girth growth. Mr. Mulloy said that not much had been done to the crop except remove the destructive dominants. As to future treatment it was thought that the best stems should be kept on to provide veneer lengths. In this stand as the oak had the bigger quarter-girth and would likely be the better volume producer, it was considered that future treatment should favour that species.

The party then moved on to a plot in Norway spruce. This plot had the following statistics :

PLOT II.
COMPT. 4. — STAND I. — 9 ACRES — P/33
Species: Norway Spruce.

	Plot Data	*Quality Class I B.F.C. Y.T.*
Total number of stems per acre ...	480	560
Mean B.H. Q.G.	6″	6″
Average height (top height) ...	47 ft.	50 ft.
Average vol. per pole as per Gen. Vol. Tables	5.56 c. ft.	6.07 c. ft.
Total present volume	2,700 c. ft.	3,400 c. ft.
Total Basal Area	120 sq. ft.	140.00 sq. ft.
Basal area removed at last thinning	26 sq. ft.	29 sq. ft.
As a percentage of total Basal area	17.8%	17%
Average B/a removed per acre at last thinning over 11 acres ...	31.50 sq. ft.	
As percentage of total crop ...	20.8%	

pH of Soil	Surface	—	4.5
	3″	—	4.5—5.0
	12″	—	5.5
	18″	—	6.2

This plot had been heavily thinned and selected stems had been high pruned. Cost of high pruning was 6d. per stem. Discussion then centred around the length of rotation for Norway spruce. Some suggested 45-50 years. Others thought that with the cost of high pruning it would be better to keep the crop on until it was 60 years. Yet again it was said that the crop should not be kept on after it had reached 12″ quarter-girth.

The party then moved on to another plot in hardwoods. Here elm was the dominant species to sycamore and oak. Plot figures here were:

PLOT III.
COMPT. 8. P/34 SPECIES — ELM

Total number of Final Crop trees per acre — — 150
Total number of Supporting Crop trees per acre — 110 } 260

PLOT DATA

Final Crop trees

	Mean BHQG	Est. MQG	Timber height	Vol. per pole	Vol. per acre
15	5¾″	5¼″	20 ft.	3.83 c. ft.	570 c. ft.

Supporting Crop trees

	Mean BHQG	Est. MQG	Timber height	Vol. per pole	Vol. per acre
11	5¼″	5″	12 ft.	2.08 c. ft.	230 c. ft.
				TOTAL	800 c. ft.

Basal Area of Final Crop trees
34.4 sq. ft. per acre (as percentage of total 62%)
Basal Area of Supporting Crop trees
21.1 sq. ft. per acre (as percentage of total 38%)
TOTAL 55.5 sq ft. per acre
Volume of Final Crop 570 c. ft. per acre (as % of total — 71%)
Volume of Supporting Crop 230 c. ft. per acre (as % of total — 29%)

pH of Soil

Surface	—	4.5
3″	—	4.8
12″	—	5.5
18″	—	6.5
24″	—	6.8

We were told that this crop had been planted with elm pure at 5 × 5 spacing. It had always been a normally stocked stand with good straight stems. It was agreed that thinning policy here should be to remove the destructive dominants and gradually prune out the inferior trees leaving the eventual elite 50 to 60 stems for veneer.

The last plot we saw was one in a stand of Norway spruce. Figures were :

PLOT IV.
(COMPT. 6. — STAND I. — 12 ACRES — P/33)
Species : Norway Spruce

	Plot Data	*Quality Class I B.F.C. Y.T.*
Total Number of Trees per acre ...	380	560
Mean Quarter Girth	7″	6″
Average height	53 ft.	50 ft.
Average Volume per pole ...	8.58 c. ft.	
Total Volume per acre	3,260 c. ft.	3,400 c. ft.
Total Basal Area	120 sq. ft.	140 sq. ft.
Basal Area removed at last thinning	35 sq. ft.	29 sq. ft.
Average basal area removed over the stand as percenetage of total B/A	21%	17%
Volume removed per acre ...	780 c. ft.	

pH of Soil

Surface	—	4.0
3″	—	4.0—4.3
12″	—	4.8—5.0
18″	—	5.1

Argument here centred around the thining and clear-felling methods adopted in such areas. Professor Clear was against the mass methods

of clear-felling large blocks. His argument was that in an area like this one would have trouble replanting if a big area was cleared and the ground vegetation was allowed to grow rampant. He though that maybe a selection felling might be the answer. Others disagreed with this idea on the grounds that a selection felling was a luxury that could only be indulged in if one's aim was not primarily a quick cash return. It was generally felt here that when the timber reached an economic quarter-girth it should be clear felled and quickly replanted.

After tea the President, Mr. Swan, thanked Mr. Breslin and his staff and closed the meting.

M.J.S.