

Excursion to Killakee Forest

Report by D. M. O'SULLIVAN.

AN excursion to Killakee Forest was held on the afternoon of July 8th, 1950. This Forest is on the Dublin foothills about 3 miles from Rathfarnham and the soil is of granite origin. The weather conditions were ideal and a large party attended.

At the outset Mr. Swan (Convener) welcomed the party on behalf of the Minister for Lands. He then gave details of the progress of the forest to date. The party was then conducted to what might be termed the Pinetum of the forest. Here in picturesque surroundings were to be found tree species from four continents and an interesting discourse on the characteristics of each of the species in view was given by the Convenor.

The party then proceeded to a pure ash plantation on an area which was surrounded by a mature hardwood belt. The planting was carried out in 1938 and the spacing was 4' \times 4'. The vegetation on half of the area was meadow grasses, while nettles predominated on the other half. The trees on the latter area got away rapidly while those on the ground carrying the mat of grass were very slow in the early stages and at present (1950) there would be the equivalent of 4 years difference as regards rate of growth. In 1944 half of the hardwood belt on the side nearest the ash was removed as the ash was inclined to lean away from the belt due to excess shade. The area where nettles predominated at time of planting got a weeding in the summer of 1946. In this operation the rough and badly-shaped stems, mostly wolves were removed. Subsequent thinnings were carried out in 1947 and 1948 when the number of stems was reduced to eight hundred per acre. At this stage *Tsuga Heterophylla* and *Thuja Plicata* were introduced as an under storey. The average height of this area is 23 ft. and the average Q.G.B.H. is 3¼ ins. The area carrying grasses at time of planting had not got any treatment other than pruning of double leaders as it had not yet reached the weeding stage. The party agreed that this was a fine stand of ash both as regards rate of growth and immunity from disease. Mr. Clear was of the opinion that it may have been the leaf-fall from the surrounding belt that was responsible for so marked a difference in the rate of growth and that the removal of the hardwood belt would be detrimental rather than beneficial to the plantation. He did not favour the introduction of the shade bearers which he feared would create undue root competition which would retard the growth of the ash. He was of the opinion that the thinning might have been more severe.

The next area visited was planted with oak, beech and horse chestnut in equal proportions. Very little of the horse chestnut remains possibly due to damage by hares which despite constant snaring are still numerous on the area. During the eight weeks blizzard of 1947 the area became infested with hares and the damage caused to the

horse chestnut was notable in comparison to that caused to the beech and the oak. The bark of the horse chestnut was completely stripped for nearly 4 feet above snow level, while the damage to the beech was slight and to the oak, negligible.

Japanese Larch except for one small area was included as a nurse through the hardwoods at 20' \times 20'. The ground vegetation at time of planting varied from cocksfoot, meadow foxtail and meadow grasses on the better and more fertile ground to crested dogstail, sweet vernal grass, creeping cinquefoil, germander speedwell and birdsfoot trefoil on the drier and less fertile ground. As regards rate of growth the oak has done better on the better type ground while there is no appreciable difference in the case of the beech. On the ground where no Japanese Larch nurses were included the hardwoods are inclined to spread and be more bushy than elsewhere. The chief disadvantage of Japanese Larch as a nurse was its rapid rate of growth and spreading habit which caused damage to the hardwoods and required pruning at an early stage. At ten years the height of the oak on the area averaged more than 4' which is the average for similar plantations grown by the British Forestry Commission. The removal of the Japanese Larch was being carried out.

An interesting discussion took place concerning the past and future treatment of the plantation. Mr. Clear was of the opinion that ploughing of the ground at time of planting would have been more satisfactory than the system adopted. This method would have obviated grass clearing which was expensive. The absence of grass caused by ploughing would have given the plants a chance to get away in the early stages. Mr. Hayes suggested topping back the Japanese Larch to half height. This would have the effect of keeping the ground clean as well as continuing to encourage cleaner and straighter hardwood stems. Mr. Ryan was of the opinion that the removal of the nurse trees should have commenced earlier.

The next stop was at an area planted pure with Spanish Chestnut at a spacing of 4' \times 4'. Though the area was small the ground varied considerably and there is a notable difference in the crop both as regards rate of growth and number of good stems. There was a gradual slope and the site quality varied from a moist loamy soil carrying cocksfoot, meadow foxtail and timothy to a lighter and less fertile soil carrying sweet vernal grass, germander speedwell, crested dogstail, birdsfoot trefoil, knapweed, etc., on the higher ground. On the better type of ground there is a smaller proportion of bushy topped stems and the average height is 14'. There is a gradual falling off in height growth to the top of the slope where the height is only about 4' and where there are few clean straight stems. A number of bushy topped trees were cut back in the spring of 1944 but unfortunately most of the resulting shoots were killed by the severe May frost of that year. A few escaped however and the advantage of cutting back was very evident.

On the last plot visited ash in the diamond-shaped beds of 13 plants, 2' apart and 25' between the groups were planted in a matrix of Lawson Cypress pure at 4' \times 4' the intention being to get one straight stem from each group of ash. The ash remained at a standstill in the early stages and looked as if it were going to be a failure. When the Lawson Cypress killed out the ground cover of grass the ash made rapid growth and now exceeds the Lawson Cypress in current height growth. The height of the ash at present is about 20'. In each group most of the ash have been removed and a few good stems left from which the one finally selected will be chosen. The Lawson Cypress crop carries a number of rough and forked trees. Both Mr. Ryan and Mr. McEvoy were of the opinion that the race of the seed was responsible. Mr. Clear while admitting that the stand did not look as one would expect, considered that with careful silvicultural treatment it should develop into a successful crop.
