Observations on Corsican Pine in Glenmalure

By T. McEvoy.

The suitability of Corsican Pine for planting on dry limestone or other calcareous soils, e.g., the Dry Grass-Herb and Dry Grass communities, is well known. Observations on the Silurian and Schistose formations of central Wicklow suggest that this species may also be of value in that area. In the state forest of Glenmalure especially, it has been planted on a variety of soils and under varying conditions of exposure with considerable success. It ranges from 500 feet to 1,400 feet in the Ballybraid valley where there is good shelter from the prevailing wind. On the whole, however, frequent high winds must be considered a significant factor of the locality. The oldest stands are now twenty years planted.

Soils. Satisfactory stands now exist on the following types: Fern community; Grass heath and Calluna heath, but gaps occur owing apparently to the high percentage of failure usual with this bad transplanter. It appears to be markedly superior in health and rate of growth to Scots Pine and its main use would seem to be as an alternative to that species on those types where exposure is great. It has two advantages in this case: its comparative immunity up to the present from needle cast (Lophodermium pinastri) and attacks by birds which destroy the leading and other buds. The latter is severe on Scots Pine on high grouse moor and repeated attacks result in slow growth and crooked stems of low value. Corsican Pine might also replace Japanese Larch at high elevations.

Use in Mixtures. Corsican Pine seems to be unsuitable for mixture by individuals with Scots Pine owing to its more rapid growth and to the fact that small Scots thinnings are practically unsaleable. On exposed larch soils, Corsican Pine may equal or exceed European Larch in height growth and the larch is then sheltered and grows better than in pure stands. Being subdominant, and useful in pole sizes, the latter is probably the ideal admixture for removal in thinnings. The Corsican might be planted pure or with 25% larch and beaten up with larch. No mixture with Japanese Larch was observed, but it is anticipated that the latter would be too fast growing to suit.

Corsican Pine is especially suitable as a mixture by strips running across the wind direction in exposed areas in the Fern community, Grass heath and Calluna heath types. This is particularly noticeable in the Clonkeen plantation (planted 1929) where its action as a windbreak is already useful.

The Heather-Molinia Community. A description of Corsican Pine on a difficult peat type is treated separately on account of its special interest. Typically this Heather-Molinia community occurs above the 1,000 feet contour on moderate slopes and forms the lower margin of the peat cap which is a regular feature of the higher mountain land in this area.

The following is a description as it is found after long enclosure from grazing: Calluna dominant, continuous, 1 ft. to 3 ft.; Erica cinerea frequent, constant; Molinia frequent, constant, of diffuse growth under and through the heath species. No other species occurs in quantity, but

Agrostis tenuis Festuca ovina and *Hylocomium* type mosses are local where Molinia is scarce or absent, connecting it with the Calluna-Heath and Grass-heath types. Elsewhere, especially on flatter ground, *Scirpus caespitosus*, *Erica tetralix* sphagnum, etc., mark its relationship to, and replacement by Calluna-moor. The peat is 6 to 10 inches deep, dark in colour, non-fibrous, moist but not waterlogged. Under heavy sheep grazing the vegetation forms a closely grazing turf, the heath species are scarce, absent or degenerate, and Molinia, *Nardus stricta* and *Aira flexuosa* share dominance.

European Larch, Douglas Fir, *Abies pectinata*, Scots Pine, Norway and Sitka spruces have been tried but are not satisfactory. Sitka is patchy, doing best where Molinia is most abundant. Pinus contorta (var. Murrayana) and Corsican Pine have done best and Mountain Pine is useful on the upper margin of the plantations. The only objection to the use of Pinus Contorta, which grows fastest, is the possibility of extensive windfall later in the rotation. If the ground is planted with Corsican and beaten up with Contorta, or if strips of the wind-firm Corsican are planted to stiffen the stand, this objection may be overcome. Both these species are liable to be thrown in the pre-thicket stage, but they continue with stem decumbent for a few feet at the base.

Method of Planting. Planting distance should be close on this type —say four feet—and turf planting and drainage are likely to give good results. Turving has only recently been extensively used on this type.

Summary. Corsican Pine has distinct possibilities as an alternative to many species and as a wind-break species in the exposed mountain forests of the south-east.

It is still too early to form definite conclusions regarding the most suitable species for each soil type and in this note the writer merely indicates what appear to be the present tendencies. In particular it may be necessary to assess the value of Sitka Spruce on the Heather-Molinia type from the results of recent plantations in which intensive draining and turf-planting methods have been used.