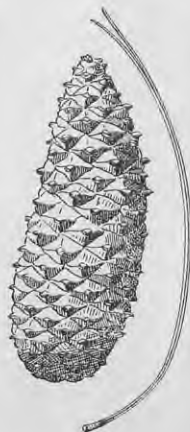
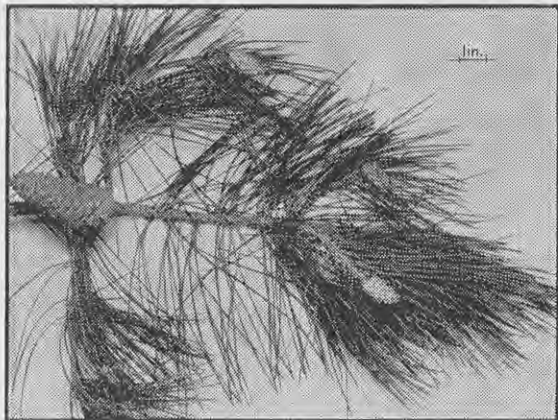


PINE TREES ON THE FARM

Pinus pinaster (maritime pine)



[Photo News Ltd. photo.]

GENERAL APPEARANCE: Wide crowned; bushy and branched when young, but soon loses its lower branches and develops a bare, often leaning, trunk with spreading branches at the top; foliage dark grey-green and heavy. **MATURE HEIGHT:** Up to 120ft., but usually not above 60ft. in New Zealand. **BARK:** Reddish grey; smooth plates with wide, dark furrows. **NEEDLES:** In pairs; 5 to 6in. long, stout and often curved. **MATURE CONES:** Mahogany coloured and shiny; no stalks or prickles; sometimes remain closed for several years; 3 to 7in. long, $1\frac{1}{2}$ to $2\frac{1}{2}$ in. in diameter. **SEEDS:** Shiny brown and smooth; $1/3$ in. long with a wing 1 to $1\frac{1}{2}$ in. long.

with a diameter of 2 to 4ft. at breast height, but usually in New Zealand the trees do not exceed 60ft. in height with a diameter growth of 3 to 4ft.

The needles are in pairs, 5 to 6in. long, stout and coarse, and grey-green in colour. The cones are 3 to 7in. long and only $1\frac{1}{2}$ to 2in. in diameter at the base, shining brown, and often produced singly on the stem. Though in the early days it was planted extensively in New Zealand, especially on coastal farms, its place for this purpose is now being taken largely by *P. muricata*. It requires a well-drained and rather light soil, so it is surprising that it is being grown, apparently successfully, in Northland on heavy clay soils where *P. radiata* will not grow.

The maritime pine is suitable for planting on sand dunes, as it is essentially a low-level tree, and as well as being hardy it seeds prolifically, so that there is much natural reseeding and regeneration—an advantage in sand-dune reclamation. In France, Portugal, and England many acres of sand-dune country have been reclaimed with this pine. In south-west France many men are employed extracting and processing the resin and turpentine yielded by *P. pinaster*.

In New Zealand its use for shelter is confined to coastal situations where it can provide the first shelter for some other species planted to leeward of it. Because of its habit of losing its lower limbs early in life a hedge such as *Elaeagnus* is often worth planting under it.

Pinus ponderosa

Because of its regular pyramidal shape *Pinus ponderosa* (the western yellow pine), especially when young, is a striking tree and retains its lower

branches well. It has heavy foliage of a bluer green than that of *P. radiata* and this is carried in tufts, especially at the ends of the twigs. The needles are in clusters of three, 5 to 10in. long and stout, and are retained on the stem for about 3 years.

P. ponderosa is a common tree in western North America and produces more timber than any other pine. In its homeland it is widely distributed, growing from sea level up to 6000 to 8000ft. above, but in New Zealand it

has been planted in comparatively small numbers, in the Rotorua forests, in plantations on the Canterbury Plains, and in Southland and Otago.

Compared with *P. radiata* it grows slowly, taking two to three times as long to reach the same height, but it is capable of withstanding greater extremes of cold, especially the frosty cold of high altitudes. *P. ponderosa* is not particular in its soil and climatic requirements, and if drainage is good it will thrive on moist or dry soils, and even on almost bare rock, and therefore is useful for planting on poor, dry areas.

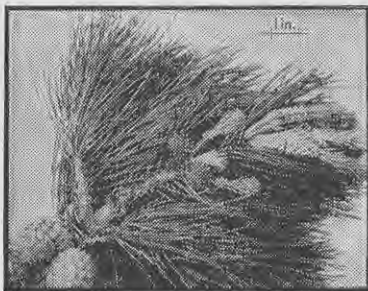
When young it forms a dense wind barrier, as it retains its lower branches better than most pines, but because of its slower rate of growth and its open form when old there is little advantage in planting it for shelter except in mixed belts. *P. ponderosa* is an attractive tree planted as a single specimen or in a mixed driveway.

Pinus laricio

As its common name of Corsican pine suggests, *Pinus laricio* has its native habitat in the island of Corsica, but it is widely distributed in south and central Europe and in Asia Minor and occurs in many geographical forms. In New Zealand it is grown in plantations at high altitudes in both North and South Islands, and it is a useful tree for timber production on the better-drained soils. It forms a tree 70 to 80ft. high with a clean trunk and light, narrow crown made up of distinct circlelets of horizontal side branches. The foliage is a greyish green and the needles, carried in pairs, are 3 to 5in. long, often very curled and twisted and having sharp points.

As in Europe, this tree takes 70 to 80 years to reach maturity and should be planted in this country only for production of long-rotation timber, as in most places where *P. radiata* flourishes it requires only half as long as *P. laricio* to produce millable timber. *P. laricio* is very hardy and planting

Pinus muricata (prickly-cone pine)



GENERAL APPEARANCE: Bushy with a compact head; branches horizontal or drooping, and in some conditions retained to the ground; foliage bluish green and dense. **MATURE HEIGHT:** 50 to 80ft. **BARK:** Reddish brown with scaly ridges; not quite as coarse as that of *P. radiata*. **NEEDLES:** In pairs, crowded together closely; 3 to 5in. long, stiff, but not as sharply pointed as those of *P. radiata*. **MATURE CONES:** Grey with short stalks; oblique but not symmetrical, with sharp prickles on the scales; 2 to 3in. long, $1\frac{1}{2}$ to $2\frac{1}{2}$ in. in diameter; persist on the tree. **SEEDS:** Dark brown; smaller and with a smoother surface than those of *P. radiata*; $\frac{1}{4}$ in. long with a wing $\frac{3}{4}$ to 1in. long.