

FRAXINUS

Vessels typically small (less than 100 μ mean tangential diameter) apart from those of the pore-zone, and sometimes extremely small (less than 25 μ). Ring-porous or semi-ring-porous. Perforations typically simple. Intervascular pitting alternate, very small to minute. Pits to ray and wood parenchyma similar to the intervacular pitting. Tyloses sometimes present. Mean member length 0.2-0.6 mm.

Parenchyma typically predominantly paratracheal, the paratracheal parenchyma varying from a few cells touching the vessels (scanty) to complete sheaths (vasicentric) that tend locally to become aliform or confluent. Sometimes with distinct terminal bands, e.g. in some spp. of Fraxinus. Strands usually up to 8 cells; fusiform cells reported to be common in the early wood of some spp. of Fraxinus.

Rays typically 2-3 cells wide, sometimes up to 4-5 cells; less than 1 mm. high. Uniseriates tending to be few and low, usually composed of a few upright cells only, but sometimes of mixed upright and procumbent cells. 5-16 rays per mm. Heterogeneous (Kribs's Type II) to homogeneous (Kribs's Types I and II), heterogeneous rays usually with 1-3 marginal rows of square or upright cells, but commonly homogeneous in Fraxinus. Tending to be storied in some spp.

Fibres usually with small simple or indistinctly bordered pits, usually mostly in radial walls. Occasionally septate in *F. insularis*. Walls thin to very thick. Mean length 0.8-1.45 mm.

Fraxinus syriaca Boiss.

Ring-porous. Pores in latewood solitary and in short radial multiples of 2 to 4; pores towards the end of the growth season very small, 30 to 45 μ in diameter; earlywood pores large, maximum tangential diameter 240 μ ; latewood pores few and scattered. Vessels with simple perforations; pits alternate, small. Wood parenchyma vasicentric, aliform, and aliform-confluent towards the end of the growth season. Rays homogeneous; 2 to 4 cells wide; up to 15 cells high; ray-vessel pitting fine, short oval in outline. Fibres with simple or indistinctly bordered pits. Vasicentric tracheids present in earlywood. (Ilanoth Specimen No. 48)