

ZELKOVA

Vessels typically medium sized (mean tangential diameter 100-200 μ) in the diffuse porous woods (Zelkova seems to be ring-porous); variable in arrangement, in wavy, ulmiform, tangential bands; mostly 5-12 per sq. mm. (apart from woods with an ulmiform or tangential pattern); ring-porous; spiral thickening present. Perforations simple. Intervascular pitting typically alternate, but opposite pitting noted in some spp. usually medium sized to moderately large; pitting to ray and wood parenchyma typically including many large, elongated and often simple pits, but such pits rare in Zelkova. Tyloses sometimes present. Mean member length 0.2-0.55 mm.

Parenchyma varying in abundance and type, but usually essentially paratracheal; limited to narrow sheaths or a few cells round the ulmiform or tangential bands of vessels; terminal bands sometimes present. Strands usually of 4 cells, but commonly of 2 cells in some spp. Storied in some spp.

Rays usually up to 3-5 cells wide, but up to 6-12 cells in Zelkova; typically less than 1 mm. high, but slightly higher in some spp. uniseriates typically very few and low; mostly 4-12 rays per mm. fewer than 4 per mm. in Zelkova; mostly commonly heterogeneous (Kribs's Type II A) with 1-3 marginal rows of square to upright cells; homogeneous, except for crystalliferous cells; with sheath cells in some spp. Solitary crystals sometimes present, large and occurring in swollen cells, particularly in the marginal rows.

Fibres typically with small simple pits, rather few and mostly on the radial walls. Walls usually of medium thickness, but thick in some spp; sometimes with a gelatinous layer. Mean length 1.0-1.3 mm. and up to 1.9 mm.