

RIBES

Vessels extremely small (less than 25 μ mean tangential diameter) to very small (25-50 μ); with moderately numerous groups and tending to form a distinct tangential pattern in some spp. very numerous, 100-300 per sq. mm. Ring-porous in some spp. Perforation plates typically scalariform, with less than 20 thin bars, but Tipps notes both simple and scalariform plates in one species. Intervascular pitting scalariform to opposite, rarely alternate; pits to wood and ray parenchyma similar in size and shape to the intervacular pitting. Mean member length 0.36-0.66 mm.

Parenchyma typically very rare or absent; Tipps reports the rare occurrence of apotracheal bands 1-6 cells wide.

Rays of 2 distinct sizes, the larger up to 11-14 cells wide and occasionally up to 22 cells; up to about 1 mm. high. Uniseriate rays numerous, low, and composed entirely of square or upright cells; rays 10-14 per mm; heterogeneous (Kribs's Type II A), with 1-3 marginal rows of upright cells, commonly with sheath cells.

Fibres usually septate, with septa rare in some spp. pits with very narrow borders; walls moderately thin to moderately thick; mean length about 0.5 mm.

Vasicentric tracheids present.