ROSA

Rosaceae

Vessels typically small (mean tangential diameter less than 100 μ) often very small (25-50 μ); exclusively solitary or nearly so; typically very numerous (40 per sq. mm); ring-porous or semi-ring-porous; spiral thickening in most species. Perforations usually exclusively simple. Intervascular pitting typically alternate, never large; pits to ray cells similar to intervascular pits. Tyloses rare; deposits of gum may be present in some species. Mean member length of mature material about 0.4-0.95 mm.

Parenchyma usually apotracheal only, in scattered cells or short uniseriate lines from ray to ray. Strands typically of 4 cells, occasionally up to 5 or 6.

Rays multiseriate, mostly 2-5 cells wide, sometimes of two distinct widths. Uniseriates rather few and composed entirely of procumbent cells in woods with homogeneous rays; moderately numerous and composed of both procumbent and upright cells in most other genera. Typically 9-15 rays per mm, but only 3-5 per mm in Rosa. Heterogeneous (Kribs Type IIB) with 1 or 2 marginal rows of square or upright cells in most genera, but composed entirely of square to upright cells in some shrubby members e.g Rosa.

Fibres with numerous distinctly bordered pits, less numerous on tangential than on radial walls. Walls thin to thick, often radially flattened and with thicker walls towards the end of the growth ring. Spiral thickening observed or reported in some species. Mean length 0.9-1.6 mm.