

ACACIA

Mimosaceae

Vessels typically medium-sized (100-200 μ mean tangential diameter) to large; typically solitary with a few multiples of 2 or 3 cells and some irregular clusters; these clusters, usually of small vessels, are not present in every section, but a tendency to produce them locally appears to be characteristic. Such clusters often accompanied or replaced by one large and several small vessels in some spp. arranged in occasional tangential rows in some spp. mostly 1.5-5 per mm. semi-ring-porous in some spp. sometimes with a distinct zone at the beginning or end of growth ring of vessels that are smaller than those of the rest of the ring. Perforations simple. Intervascular pitting alternate, small; sometimes with coalescent apertures; pits to parenchyma similar to intervacular pitting; vestured. Solid deposits present in most spp. Tyloses not observed. Mean member length usually 0.2-0.4 mm.

Parenchyma usually abundant, and predominantly paratracheal. Typically as a sheath, several cells wide, about the vessels, round, diamond-shaped or distinctly aliform on cross-section and becoming confluent locally where the vessels are close together, with considerable variation within these limits in different parts of the ring and in different specimens; ^{MORE CONSISTENTLY ROUNDED (VASCICENTRIC) IN SOME SPP.} more consistently confluent in some other spp. in broad bands (4 seriate or more) in *A. albida* Del and *A. farnesiana* Willd, scattered strands (diffuse) usually containing chambered crystals in a few spp. Sometimes with terminal parenchyma in a few spp. often with pronounced intercellular spaces. Strands most commonly of 2-4 cells; fusiform parenchyma cells common in some spp.

Rays mostly 2 cells wide. Exclusively uniseriate or with only a few biseriate rays in some spp. Woods with multiseriate rays usually with very few or very low uniseriate rays. Mostly 4-8 rays per mm., but up to 14 per mm. in some of the woods with small rays. Homogeneous (Kribs's Type II, sometimes I or III). Cells usually small (about 10 μ in tangential diameter). Commonly containing gum-like deposits. Almost always with some tendency to arrangement in echelon or stories. Storying not much marked in some spp.

Fibres with few small simple pits, more numerous on radial than on tangential walls. Walls usually moderately to very thick, but thin in some spp. of *Acacia* (exceptional). Fibres next to paratracheal parenchyma usually thinner walled than others and have intercellular spaces (diagnostic for Mimosaceae v. Caesalpinaceae). Mean length 0.8-1.75 mm.

Acacia albida Del.

Diffuse porous. Pores solitary and in short radial multiples of 2 to 4; pores very small to large, maximum tangential diameter 240 μ ; few and scattered. Vessels with simple perforations; pits alternate, medium sized to large, vestured. Wood parenchyma in broad confluent bands. Rays homogeneous; uniseriate and bi and triseriate in part; up to 20 cells in height; ray-vessel pitting coarse, short oval in outline. Fibres with simple or indistinctly bordered pits. Ripple marks, rays storied, approximately 40 ripple marks per cm. (Ilanoth Specimen No. 57)

Acacia Raddiana Savi.

Diffuse-porous. Pores mostly solitary and in short radial multiples of 2 to 4; pores generally aligned tangentially; numerous but not crowded; very small to large, maximum tangential diameter 215 μ . Vessels with simple perforations; pits alternate, medium sized to large, vestured. Wood parenchyma vasicentric, aliform, and narrow to broad confluent bands. Rays homogeneous; 1 to 6 cells wide; up to 60+ cells high; ray-vessels pitting coarse, short oval in outline. Fibres with simple pits; cell walls thick. Gum-like substance plugging the heartwood vessels, red-brown in colour. (Ilanoth Specimen No. 25)

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Acacia spirocarpa Hochst.

Diffuse-porous. Pores mostly solitary and in short radial multiples of 2 to 4; pores generally aligned tangentially; numerous but not crowded; very small to large, maximum tangential diameter 215 μ .

Vessels with simple perforations; pits alternate, medium sized to large, vestured pits not observed.

Wood parenchyma vasicentric, aliform, and in infrequent narrow concentric bands which include the pores. Rays homogeneous; up to 6 cells wide; up to 40+ cells high; ray-vessel pitting coarse, short oval in outline. Fibres with simple pits; cell walls thick. Gum-like substance plugging the heartwood vessels, red-brown in colour. (Ilanoth Specimen No. 23)