

***Prunus africanum* (Hook f.) Kalkman**
(syn. *Pygeum africanum* Hook. f.)

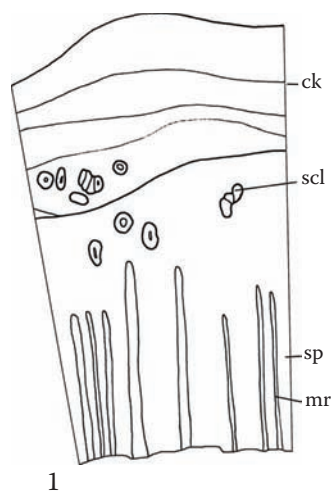
Pygeum Bark

Pruni africana Cortex

Rosaceae

Pygeum is native to Africa, where it was traditionally used to treat bladder conditions and “diseases of old men.” Modern research provides some confirmation of the efficacy of pygeum for treatment of enlarged prostate. Due to demand for the herbal drug and timber, pygeum is environmentally threatened throughout much of its growing range because of loss of habitat and overharvesting. Regeneration practices are taking place in some parts of Africa. Because the bark is very hard, soaking in water prior to sectioning in order to soften the root is recommended (the water will become salmon-pink to sandalwood-brown in color).

Transverse section: Red-brown cork in several layers, up to 5 mm broad, easily detached during sample preparation; parenchyma inside the cork has conspicuous sclereids, which may also be present in the cork; sclereids are solitary or in groups, up to 250 µm diameter, white, lignified walls, with distinct concentric striations and lumen frequently filled with a granular red-brown substance; roundish parenchyma cells are arranged in radial rows and some are thin walled and some lignified with reticulate wall thickening and yellow walls;



may be filled with an orange-brown substance; cluster crystals of calcium oxalate are scattered in the parenchyma; secondary phloem with distinct medullary rays; large rays, several cell rows broad, consist of radially elongated thin-walled cells; radially oriented fibers may occur in these rays; between the large rays are narrow rays consisting of nearly quadratic cells, some with lignified, reticulate walls; numerous cluster crystals of calcium oxalate typically occur in the conducting tissue and rays of the outer part of the secondary phloem; prisms are rare; fibers are usually absent between rays in the outermost part of the secondary phloem, but dominate in the large inner part of the phloem; axially elongated fibers, cell lumen very narrow, surrounded by parenchyma or in small groups.

Longitudinal section: Fiber bundles frequently branch; crystals occur in axial rows of parenchyma and in radial rows along medullary rays.

Starch: Infrequent, simple, roundish to ovate, up to 20 µm in diameter, with a linear or stellate hilum.

Powder: Fragments of red-brown cork; fibers; large sclereids; parenchyma with cluster crystals; some parenchyma have reticulate walls; numerous free cluster crystals; starch is infrequent.

