British Pharmacopoeia

Berberis Aristata – BP 2016

Photographs and micrographs are provided for information. To be used in conjunction with the published British Pharmacopoeia monograph.

MHRA

Identification A

The cut pieces of stem are subcylindrical, often branched and somewhat swollen at the nodes, from about 15-20 mm diameter and varying in length. The bark is soft, about 4-8 mm thick, with a yellowish brown outer surface, finely wrinkled longitudinally or deeply furrowed, peeling off in places and exposing the inner dark yellow wood. Fracture short in the region of the bark, hard and fibrous in the wood.

fig. 1 Fragment of stem

fig. 2 Stem fragment and longitudinal section of stem fragment

Identification B

Reduce to a powder. The powder is yellowish brown. Examine under a microscope using choral hydrate solution R. The powder contains numerous fragments of xylem, the vessels reticulately and spirally thickened, some tracheids; thick-walled, short, spindle-shaped, lignified, yellowish fibres of the phloem and xylem with a wide lumen; stone cells elongated with thick, pitted walls, some containing a single calcium oxalate crystal, normally present in groups; parenchyma cells of the medullary rays, some with yellow-brown contents, single prism crystals of calcium oxalate, or simple starch granules; cork cells yellowish-brown, thin-walled; numerous scattered starch grains and calcium oxalate crystals.

fig. 1 Fragments of stone cells with associated vessels stained with phloroglucinol (500x)

fig. 2 A group of tracheids stained with phloroglucinol (200x)

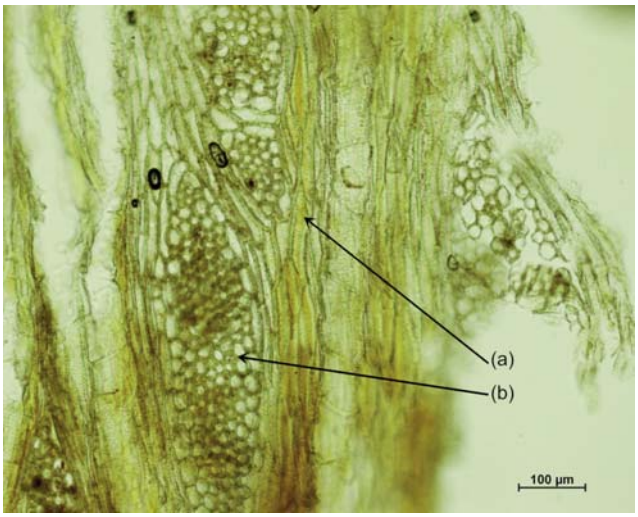

fig. 3 Yellowish fibres of the phloem (a) associated with medullary rays in tranverse view (b) (100x)

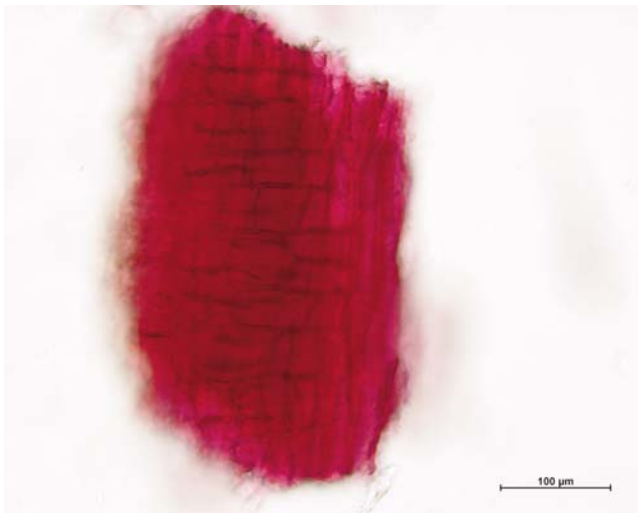

fig. 4 Stained cells of the medullary rays with underlying fibres stained with phloroglucinol (200x)

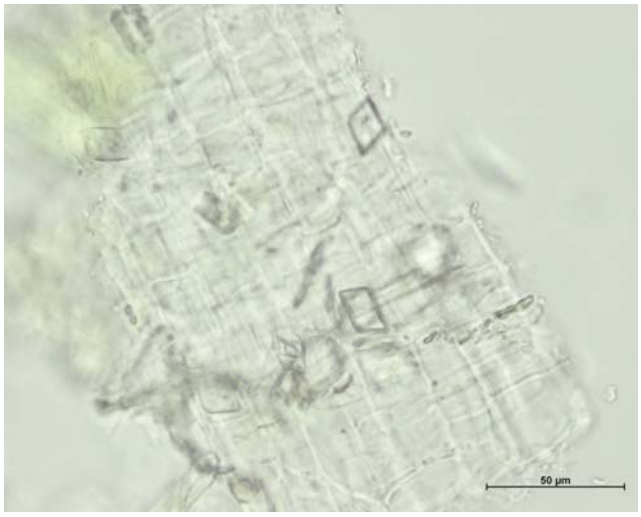

fig. 5 Parenchyma cells of the medullary rays with prism crystals of calcium oxalate (500x)

fig. 6 Thin-walled cork cells (500x)