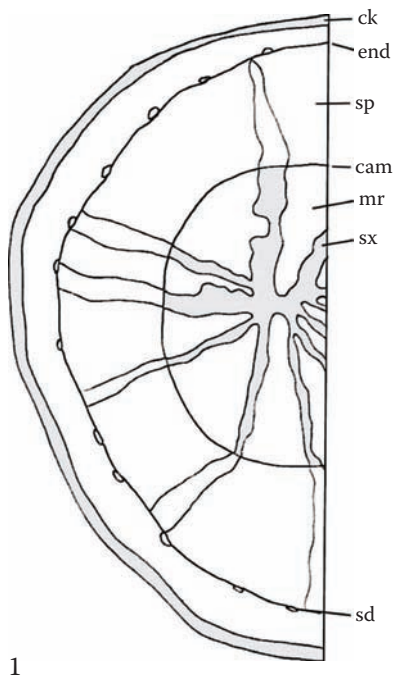


Arctium lappa L.**Burdock Root****Radix Arctii****Asteraceae**

Burdock root has been used in traditional Western herbal medicine as a “blood purifier,” an action believed to enhance endogenous detoxification processes. It is widely used for skin conditions such as eczema and psoriasis. A great deal of the burdock root in trade contains considerable amounts of the relatively inert fibrous stem. Stem and root can be easily distinguished from each other microscopically. Manufacturers should establish appropriate specifications limiting the amount of stem in root products.

Transverse section: Cork; cortex found in younger roots; a highly characteristic ring of secretory ducts occurs just exterior to the endodermis; ducts are ~40 µm diameter and filled with orangish brown masses; as secondary growth proceeds, the ducts are pushed toward the cork and eventually lost; secondary phloem without other defining features; in young roots, secondary xylem vessels are found in small groups separated by thickened parenchyma



and arranged in narrow radial strands alternating with broad medullary rays; young roots are free of fibers; in older roots, a compact ring of vessels and yellow fibers forms interior to the vascular cambium; parenchymatous tissues in the secondary phloem and xylem are frequently ruptured; all parenchyma cells are filled with amorphous or spherocrystalline masses of inulin; starch and calcium oxalate crystals are absent.

Longitudinal section: Reticulate, scalariform, or bordered-pitted vessels.

Powder: Fragments of secretory ducts (younger roots) or yellow fibers (older roots); reticulate, scalariform, or bordered-pitted vessels; parenchyma with masses of inulin.

