

Hydrastis canadensis L.

Goldenseal Leaf

Hydrasti Folium

Ranunculaceae

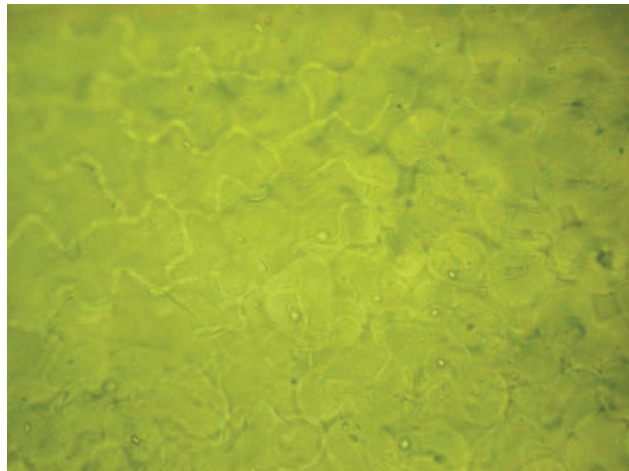
Goldenseal leaf has been traded, primarily in tea form, for decades though it is not widely used in herbal dietary supplements. Traditionally in the Southeast, goldenseal leaves and tops were used as a tea as a mild stomachic and for the liver and the tea was also given to children. There appears to be no research regarding its use. Its constituent profile is similar to that of the root including containing berberine, though in much lower concentrations. Leaf may adulterate goldenseal root products and can be easily detected microscopically.

Surface view: Upper epidermis characterized by wavy cell walls and the absence of stomata. Lower epidermis

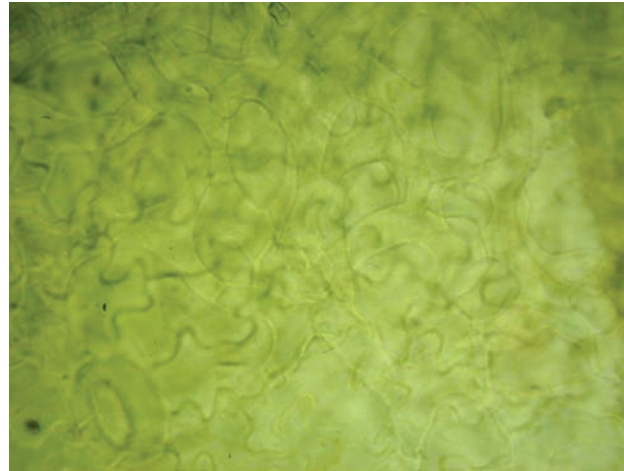
shows sinuously walled cells and frequently anomocytic stomata (length 30–35 μm). Both leaf sides are covered with unicellular, thick-walled, acute trichomes up to 600 μm long. The lumen of the trichome cell is narrowed at the position of the cuticle of the epidermis and widened again at the mostly pitted base. The diameter of the trichome bases is 20–40 μm .

Transverse section: Shows the bifacial structure of the leaf with large intercellular spaces within the spongy parenchyma. The vascular bundles are of the collateral type and often accompanied by fibers.

Powder: Leaf fragments with the typical unicellular covering trichomes; wavy epidermal cells; fragments without stomata.



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