Of interest this week at Beal...

Goldenseal

*Hydrastis canadensis*

Family: the Buttercup family, Ranunculaceae
Also called Indian tumeric, Ground raspberry, Eye-balm, Yellow root, Yellow-puccoon, and Sceau d’or

Goldenseal, *Hydrastis canadensis*, is a woodland perennial that reaches 10”-15” (25 - 38 cm) in height and forms colonies by way of its spreading rhizome. Although its sun and soil requirements are modest, it is very sensitive, and easily destroyed anywhere it grows. It seems to thrive best where forest soil, high in organic humus receives dappled sunshine and regular moisture. Its reputation as a medicinal herb has lead to its over-collection and its disappearance from much of its former range. It has been recorded from Ontario in the north, to Tennessee and Georgia in the south and from the Atlantic Coast in the east and to Arkansas in the west. It a “special concern” species in Michigan, and appears in our endangered/threatened collection.

In early May (in East Lansing, Michigan) the erect stalks emerge with usually two leaves, from the upper one of which a single white flower is supported. The flowers are white by way of the dozens of stamens with light colored filaments, but having no petals. By July or August, the fruit is mature and resembles a raspberry, hence the common name of Ground raspberry, but is not edible by humans.

The demand for its harvest stems from real and perceived medicinal uses that have been popular for centuries. There are several alkaloids known from Goldenseal, including berberine, canadine, and canadaline. Most of the studied effects, and most of the studies on Goldenseal effects have focused on the action of berberine.

Berberine, has been show *in vitro* to have some amount of antibacterial, antifungal, and anti-protozoal activity, but how effective the administration of berberine is in real-life situations is still an open question. Although generally well tolerated at usual dosages, berberine constitutes a dangerous drug for pregnant or nursing women. It can cross the placenta and is linked to abortions, and may replace bilirubin from albumin and lead to hyperbilirubinemia in infants and that is a cause of kernicterus.
Goldenseal, Hydrastis canadensis, bears a compound fruit much like a raspberry in its general form (inset photo) but it is not edible. Each fleshy carpel of the fruit produces from 1 to 3 small black shiny seeds, note Roosevelt dime. The seeds perform best if not allowed to dry before sowing. The round cotyledons are the only result of the first year’s growth.

that can result in athetoid cerebral palsy and many attendant handicaps (Management of Hyperbilirubinemia in the Healthy Term Newborn, Pediatrics 1994;(94) 558-565).

In the present, most consumers use it, perhaps in combination with Echinacea, as a treatment for the early symptoms of colds. In this instance, the fairly low berberine content and its uncertain bioavailability obscure some of the clinical issues that might be associated with its use.