

## May-Apple (*Podophyllum peltatum*)

### Identification:

This unmistakable plant is quite remarkable. Twelve to eighteen-inch high umbrella shaped leaves usually grow in colonies. These leaves would not be great at shedding water because they are deeply notched, making 5-9 lobes. Look for two types of plants. Plants with a single leaf do not produce a flower. Those with two leaves bear a single blossom. This white, round flower has 6-10 overlapping waxy petals, yellow stamens, and a rather large pistil. It blooms on a stalk about 1 inch long, right at the fork of the leaves.

After pollination, a fruit develops that gives this plant its name. It is like a tiny lemon-yellow apple.



### Natural History:

There are many names for the May-Apple, many referring to the fruit: Devil's apple, hog apple, Indian apple, umbrella plant, wild lemon, and American mandrake. The name "mandrake" belongs to an unrelated Old World plant *Mandragora officinarum*, so this is not the best nickname for this plant. The other names are quite well suited, and because it typically blooms in May, the common name is sensible. The generic name literally means "leaf foot" and its specific epithet means "shield shaped" so both parts of the scientific name refer to the remarkable leaf.

The fruit, which develops in late summer, is the only non-poisonous part of this plant, and was sometimes made into jellies or drinks. Properties of other parts of the plant lead the FDA to regard this plant as "unsafe" for personal use, as it is poisonous. Those very traits have led to May-apple's use for medicinal purposes. Many Native Americans used May-apple medicinally. Cherokee used the plant to treat liver ailments, warts, and to restore hearing. Shawnee boiled the root for use as a very strong laxative and to get rid of intestinal worms.

May-Apple's powerful properties hold promise in modern medicine as well. Two very potent substances have been isolated from the root: podophyllotoxin and peltatin, both of which have strong anti-cancer properties. Extracts are in use today as topical treatments for genital warts and certain types of skin cancers. Who knows, this plant extracts may someday yield promise in lung, testicular, and breast cancer, where research continues.

