



GARDEN MEDICINALS *and Culinaries*[™]

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GROWING GOLDENSEAL FROM SEED (*Hydrastis canadensis* Ranunculaceae)

Due to over-collection of native plant populations, goldenseal is now a threatened plant. The seeds that you received have been grown only from cultivated plants under natural conditions.

How to care for your seeds upon arrival

Goldenseal seed is dormant when freshly harvested from the berries which appear in mid-June. Seed germination normally requires a long period of exposure to a warm, moist environment (summer) followed by a cold moist period (winter). The seed that you have received has had part of the dormancy requirement satisfied through pre-conditioning so that the seeds germinate faster. Seed is shipped from September through April, but should be planted as soon as possible. If you are unable to plant them immediately, keep the seeds in the refrigerator in their original packaging. During refrigerated storage, seeds must be kept moist. If they are not planted within several days, check them at least once a week to make sure they have not dried out. We do our best to ship these to you in excellent condition. Carefully inspect the contents. If for some reason you are not satisfied with the appearance or question their health, please notify us immediately. Conditioned seed may show some evidence of sprouting depending on the time of year that you receive it. Conditioned seeds are normally shiny black, though sometimes partly split due to the partial emergence of a gold-colored root, usually not more than ¼" long. If there is evidence of root emergence, plant the seeds as soon as possible.

Habitat and culture

Goldenseal is a long-lived, perennial native to the deep woods of the Eastern United States from Alabama northward to southern Canada. In its native habitat, it is found in the dappled shade of mature, mixed hardwood forests. Goldenseal plants are typically found on the cooler northern or northeastern slopes in well-drained moist soil. It prefers a slightly acid soil (pH 5.5 to 6.5) that is rich in humus (decomposed organic matter), especially leaf mold. Humus helps retain moisture, allows drainage, aids nutrient assimilation, and promotes healthy growth. Goldenseal requires at least 70% shade. If not grown in the woods in dappled shade, plants must be shielded from the mid-day sun. Though high light levels promote more rapid growth, care must be taken to not burn the leaves from excessive light. Where there is direct exposure to the sun, early to mid-morning sun is tolerated best. In the event of drought, plants will be forced into early dormancy, which is not harmful, provided the plants have set buds for the next year's growth. Plants should not be planted next to vegetable gardens where disease spores may be sufficiently present to cause disease. Ideally, plantings of goldenseal should be alternated with other shade-dependent herbs so as to mimic the natural ecology. Under the proper conditions, goldenseal is a very hardy plant that is easy to grow.

Planting Instructions

If you do not have an ideal planting area, it is still possible to grow goldenseal successfully. You'll need a deep, loose, loamy soil, high in organic matter such as leaf mold or compost.

Though a steady supply of moisture is important, the roots need air as well as water. Roots planted in clay soil, or boggy, poorly drained soil will fail to thrive. If you do not have enough shade you can build a lath house or purchase shade cloth to achieve the 70% shade required for optimal growth.

Sow the seeds $\frac{1}{4}$ inch deep, 1- $\frac{1}{2}$ inches apart in rows about 3" apart in shaded flats, in the shade garden, or in nursery beds in the woods. A germination rate of about 75% is typical when the seeds are properly planted. Emerging seedlings have two small leaves. During mid- to late summer, the seedling produces a small, single, true leaf and the beginnings of a branching root system. During the first year of growth the seedlings are delicate and must be kept moist, weeded, and protected from slugs. By the second year, the plants are more robust and better able to survive without attention. Once the plants are large enough to transplant, usually at the end of the second year, they should be transplanted in the fall or the following spring while the plants are still dormant. Be sure to spread out the small roots when planting. Space the transplants about 6 to 12 inches apart, about $\frac{1}{2}$ to 1 inch deep depending on the size of the rhizome. Goldenseal rarely grows very deep. The rhizome grows laterally, about 1 inch beneath the soil surface. Small feeder roots branch off the rhizome reaching deeper into the soil to nourish the plants. These feeder roots will sometimes extend far beyond the rhizome, producing a bud, and after time will separate from the parent plant. After covering the roots with soil, mulch the planted roots with composted leaves or chopped leaf litter. We suggest that you start a few different patches and in time they will spread.

Thank you for helping to preserve this valuable and beautiful plant. Your efforts will help ensure that there will be an ample number of goldenseal plants for future generations to use and enjoy.

Delight in your plants and pay them a visit now and then. If you have any questions please feel free to call us. We are here to help.