

Lady's Slippers in the Garden

Yes You Can

TEXT AND PHOTOGRAPHS BY MARK BRAMBLE



GARDENERS HAVE TREASURED lady's slipper orchids (the genus *Cypripedium*) for centuries. They are the showiest and most popular of the terrestrial orchids, producing spectacular flowers in spring, some lasting several weeks. They are available in a variety of colors, including pink, yellow, cream, white, red, burgundy, deep purple and rust, with flower sizes ranging from 2 to 5 inches (5 to 12.5 cm) across. The flower has an extended pouch with petals on either side, making it look like a lady's slipper. The genus *Cypripedium* contains 55 species and six natural hybrids of northern temperate terrestrial orchids. Today, about 34 species and four natural hybrids are recognized in the Far East, 10 species and four natural hybrids in North America, eight species in Mexico and northern Central America and a single species in Western Europe. *Cypripedium reginae* (the showy lady's slipper) is the state flower of Minnesota.

The name *Cypripedium*, literally translated, means Aphrodite's foot; the plant has commonly become known as lady's slipper. How appropriate that these magnificent flowers are named for the

Greek goddess of love and beauty who stepped out of the Mediterranean Sea on the southwest coast of Cyprus.

The earliest record of cypripedium cultivation is by British botanist John Gerard in his 1597 book, *Great Herball, or General Historie of Plants*. In 1731, Philip Miller grew lady's slippers at the Chelsea Physic Garden in London (*Cypripedium calceolus*). In addition to their extraordinary beauty, cypripedium roots have been used medicinally to cure nervousness, depression, irritability, headaches, muscle spasms and toothache. The roots of several varieties of cypripedium were included in *The United States Pharmacopeia* from 1863 to 1916. Today, lady's slippers are coveted by gardeners worldwide, but have a reputation for being difficult to grow.

In my garden on the eastern shore of Maryland (hardiness zone 7b), many varieties of these plants flourish. Twenty miles away, in the sandy soil of a pinewood near the Chester River, *Cypripedium acaule* grow freely by the hundreds. However, the conditions in my garden are quite different, with heavy

clay soil and poor drainage. *Cypripedium* are temperate plants and limited to, with a few exceptions, hardiness zones between 4a and 7b. Within this range of climate zones, good drainage is probably the single most important requirement for success with these plants. I'm able to grow cypripediums with the following preparation

CHOOSING A SITE Choose a site that is protected from wind and receives some direct sunlight each day. Morning or late afternoon in fine, but cypripediums need to be protected from midday sun. High open shade with filtered sunlight, or the shade of a north-facing wall work well. Avoid planting them too close to trees or large shrubs, the roots of which will compete for water and nutrients.

SITE PREPARATION Good drainage is essential for successfully growing cypripediums. Because I garden in heavy clay soil, with poor drainage, I grow my cypripediums in beds that are half above and half below ground level. Dig a hole about 12 inches (30 cm) deep, line it with Weed Block or other landscaping material to keep weeds out, and fill it half full with

pea gravel to ensure good drainage.

Next, build a wall around the perimeter of the hole about 10 inches (25 cm) high and line it with nylon screen held in place with ground staples. There are many different materials one can use to create raised beds such as logs, railroad ties, wooden planks, bricks or slate. The lining keeps the potting mix from leaking through the wall.

GROWING MEDIUM There are various recipes for potting mixes, and I am continually experimenting. I've had the best results with a mix of one part Turface, three parts Soil Perfector, three parts Perlite and three parts commercial potting soil. Turface was originally developed for use in surfacing baseball fields. It has been extensively used for landscaping over the last decade and is popular for orchids. Soil Perfector is the Espoma brand of a fired shale material called stalite.

The final step is to fill the bed with your chosen potting mix up to an inch (about 2.5 cm) or so below the top edge of the wall.

These beds provide the drainage cypripediums must have as well as an interesting "stage" for displaying the plants. Companion plants are slow-growing ferns, epimediums, anemonellas, ariseamas and trilliums.

PLANT SELECTION Once the site has been prepared, it's time to choose which plants to grow. The first cypripediums I planted were *Cypripedium kentuckiense*, a species native to the eastern United States, and they have done well in my garden.

Next, I tried the Werner Frosch hybrid *Cypripedium Philipp* (*macranthos* × *kentuckiense*), which have been a great success. Frosch is a German engineer who has earned an international reputation for producing cypripedium hybrids that are easy to grow. The hybrids tend to be more vigorous and multiply more rapidly than the species.

There is a new selection of hybrid cypripediums called Garden Orchids that have been produced in large quantities in Europe with the view to selling them in the big box stores at reasonable prices. I first saw these in London a few years ago and recently Raising Rarities in Toledo, Ohio, began offering them.

PLANTING Fall is the best time for planting. Cypripediums have roots that tend to grow horizontally about 2 inches (5 cm) below the surface. Carefully place the rhizome with the tips of the buds facing upward and roots spread out horizontally. Cover the roots with about 2



inches (5 cm) of the potting mix, making sure that the buds are just below the surface. Take care not to expose the roots to drying winds or sunlight, which can be fatal. Water well.

MULCH Cover the bed with a 2–3 inch (5–7.5 cm) layer of pine needles. The pine needles are effective because they do not get soggy and the slight acidity keeps down any fungus that might occur in regular mulch. Chopped leaves are also good mulch for cypripediums. It's important to make sure that if the mulch blows away, you replace it so the buds don't freeze.

FERTILIZING Fertilize with a granular timed-release fertilizer such as 16–16–16 or 20–20–20 in the spring. You can fertilize with a liquid fertilizer at weekly intervals at ¼ strength from March

[1] A bed of *Cypripedium Philipp* (*macranthos* × *kentuckiense*) in full glorious spring bloom.

[2] The roots of cypripedium plants tend to grow outward in a flat plane from the central growth bud. When planted it is imperative that these roots are spread out naturally on the medium. Proper planting depth places the very tip of the growth buds just at or slightly below the soil surface. These growth buds must not be allowed to become desiccated.

[3] Once growth begins in the spring, development of the shoots is very rapid.

Sources of nursery-raised cypripediums

Hillside Nursery

107 Skinner Road
Shelburne Falls, MA 01370
413-625-9251
www.hillsidenursery.biz

Raising Rarities

10 South Holland Sylvania Road
Toledo, Ohio 43615
419-866-4241
www.raisingrarities.com

Gardens At Post Hill

433 West Morris Road
Morris, Connecticut 06763
203-247-3895
www.gardensatposthill.com

Plant Delights Nursery, Inc.

9241 Sauls Road
Raleigh, NC 27603
919-772-4794
www.plantdelights.com

Werner Frosch Hybrid Cypripediums

D-63303 Dreieich
Hohenweg 8
Germany
www.w-frosch.de



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- [4] My cypripedium beds are constructed half above the ground and half below ground level to assure adequate drainage. Once a suitable site is selected, a hole about 12 inches (30 cm) deep is dug, lined with weed block and filled half way with pea gravel.
- [5] The raised portion of this bed has been constructed of flat pavers but landscape timbers or any other heavy material that will resist decomposition will work. The goal is to create a semi-permanent bed that will allow the plants several seasons without being disturbed.
- [6] After planting, the bed is mulched with pine needles. This mulch serves several purposes. First, the pine needles do not retain moisture as other mulches yet they help to keep the surface of bed cool and the slow decomposition of the pine needles helps to maintain a slightly acidic growing medium.

through September. Do not fertilize from October to February, when the plants are dormant. In the fall, give established beds a dusting of horticultural lime.

PESTS Slugs can devastate cypripediums and special protection is essential. An electric or galvanized slug fence or chemical control such as slug and snail lentils are reliable methods of controlling them. A saucer or pie pan filled with beer is a magnet for slugs. Place the edge of the pan at ground level and the slugs and snails will crawl in and drown.

With careful site preparation, lady's slippers can provide a dazzling addition to the spring garden. They can be seen at the National Arboretum in Washington, DC; Mt. Cuba Center in Delaware; The Garden Sanctuary in Toledo; Gardens at Post Hill in Connecticut; and at the Garden In The Woods in Massachusetts. Once established, cypripediums require little attention and are sure to be a show-stopping attraction year after year.

—Mark Bramble is a playwright and theatre director best known for his musicals *Barnum* and the Tony Award winning *42nd Street*. He has been growing orchids for 25 years, first in his New York City apartment (see *Orchids*, July 1998, *The Orchid Room*) and currently at his home in Maryland, where he grows in a greenhouse and also has hardy terrestrial orchids in the garden. He served on the board of the Manhattan Orchid Society. 1745 Broadway, 18th Floor, New York City, New York 10019.



[7] *Cypripedium* Emil, a Frosch hybrid registered in 1993 brings together the North American *Cypripedium parviflorum* and the closely related European *Cypripedium calceolus*.

[8] This cypripedium marketed under the 'John Haggard' is the result of a mating between two varietal forms of *Cypripedium macranthos* (*macranthos* × *macranthos* var. *hotei-atsumorianum*). The deeply colored flowers can be nearly 4 inches (10 cm) across.

[9] *Cypripedium macranthos* 'var. *hotei-atsumorianum*', technically an unestablished form, differs from the typical forms in having large, dark purple flowers over 4 inches (10 cm) across, with broad elliptical petals. It is found in hybridizing under the invalid name *Cypripedium hotei*.

[10] *Cypripedium* (*kentuckiense* × *microsaccos*) is another hybrid that brings east and west together. The hybrid remains unregistered and there is some confusion as to what is actually the pollen parent due to the fact that the name *Cypripedium microsaccos* refers to three distinctly different taxa: *Cypripedium calceolus*, *Cypripedium shanxiense* and a natural hybrid between the two.