



Department of Horticulture

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The Peony: State Flower of Indiana

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Peonies, with vibrant colors and winter hardiness were cultivated in China, Siberia and Japan over 2,500 years ago. The first peonies were brought to Europe, and later to the United States, around 1800. Descendants of the early “immigrant” types may still be found growing happily in Indiana. The peony is long-lived. Many have been growing and flowering regularly for more than 50 years. It was named the Indiana state flower in 1957.

Peonies make excellent garden subjects because they are reliably winter hardy, easy to grow, develop large showy flowers useful in the garden or as cut flowers, and are usually insect and disease free. In addition, the plants are attractive when not in flower with glossy dark green foliage.

Types of Peonies

This bulletin discusses only the herbaceous or garden perennial peonies, *Paeonia lactiflora* and its hybrids. For many years, these plants were known as *P. chinensis*, *P. sinensis*, or *P. albiflora*. Plants by any of these names are from this same group. They are classified according to their flower type:

Single: Five or more guard petals with many pollen bearing stamens in the middle. Flowers often stand erect without support.

Japanese: A transition type between the singles and doubles. There are five or more petals and the stamens are partially transformed into short, quite narrow petals which are referred to as staminodes. May require support to hold flowers erect.

Anemone: Japanese and anemone types are very similar. In the anemones, however, the stamens are fully developed into narrow petals called petalodes without any residual pollen bearing stamens. May require support to hold flowers erect.

Semi-double: No clear distinction between the guard petals and many of the petalodes. Petalodes may be in all stages of development, and a few residual pollen bearing stamens may be scattered among the petalodes. Flowers will droop to the ground without support.

Double: Fully double flowers in which carpels and stamens are fully changed to petalodes and the guard petals are not distinguished from them. Flowers will droop to the ground without support.

Acquiring Planting Stock

There are hundreds of named cultivars, but often plants are sold as simply “double pink” or “single white”, etc. Such plants may perform well, but it is less of a risk to acquire recognized name cultivars. A list of cultivars voted as most popular by members of the American Peony Society is available from the Society's web site (www.americanpeonysociety.org). To extend the flowering season, chose both early and late blooming cultivars.

It is very important to secure high quality plants, properly labeled, packed and delivered to insure your satisfaction with growing peonies. Whenever possible, buy from a nurseryman of long-established reputation.

Decisions Before Planting

Where to plant: Plant peonies in a location providing free air circulation, full sunlight and some protection from strong winds. Peonies are seldom winter killed, but the flower buds are susceptible to late frosts and wind damage. Don't crowd peonies together or close to other trees or shrubs which compete for soil moisture and nutrients. Try to avoid locations where peonies have been grown before.

Peonies thrive on a wide range of soils; but a clay loam is best. It must be well-drained and yet should hold moisture.

Distance between plants: Peonies need ample room for development, so plant them three to four feet apart. They will be productive, of high quality and easily cultivated at that spacing.

Time to plant: October planting or dividing and resetting of bare root stock is preferred because 1) plants are dormant and therefore less sensitive to injury; 2) plants are freshly dug and therefore, there is less damage due to storage handling; and 3) plants which become well-

established in the fall will grow more vigorously the first growing season. Spring planting is less desirable, but can be successful if done early.

Soil Preparation and Planting

Soil preparation: The planting sites should be prepared as far in advance of planting as possible (i.e.: spring for fall planting). Prepare soil at least one foot deep (Figure 1). Deeper preparation, to three feet, will give better plant performance for a longer period of time. Mix in generous amounts of organic matter such as composted manure or sphagnum peat moss. Add 1/4-1/2 cup of 10-10-10 per plant to the soil in the bottom of the bed. Avoid adding fertilizer to the soil that will surround the roots. Do not lime the soil unless soil pH is below 5.5. Peonies thrive in slightly acid soil (pH 6.0-7.0). To learn about your soil conditions, get a soil test. Allow soil to settle, or if working the soil immediately prior to planting, pack the soil firmly to prevent settling once the roots are planted.

Setting new plants: Dig a hole 10 to 12 inches deep in the prepared soil area. Make it large enough so the roots can spread out in a natural manner. Place the plant in the hole, then work the soil in about the roots, making sure it's well firmed. The upper-most buds (eyes) should not be covered more than 2 inches (Figure 1). Planting too deep is a common cause of failure to bloom. Plant container grown plants so the soil surface in the pot matches the soil surface in the planting location.

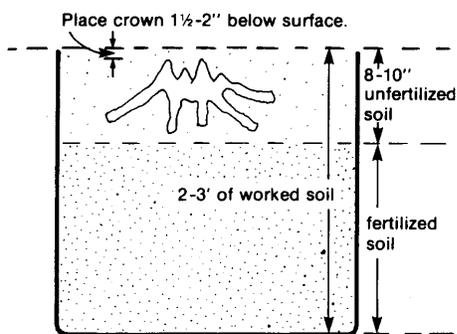


Figure 1. Soil preparation and planting depth for peonies.

Propagating from existing plants: Digging, dividing and replanting will increase the number of plants. There are two ways to propagate peonies. First, with a heavy spade, split the clump in half, thirds or fourths while it is still in the soil. Then dig up only those portions that are desired for transplanting. Or second, dig up the entire clump and divide it into two or more portions. Plant each in a new location.

Normally, newly transplanted plants need two to three years to become established enough to produce normal flowers.

Protection: It is advisable to protect peonies with a mulch for the first winter. Use a small amount of coarse straw or hay over each plant. Mulch helps preserve moisture and prevents alternate freezing and thawing, which can heave soil and plants too! Be sure to remove mulches promptly in spring.

Annual Care

Weed control: Use mulch to reduce weed growth or practice regular cultivation. Do not cultivate deeply since there is danger of disturbing the roots. And do not mound the soil up around the plants during the growing season. This results in deeply covered crowns and failure to bloom.

Disbudding: If you want huge blooms, leave only the large, terminal bud on each stem. Remove the other side or lateral buds while they are still tiny. Picking flowers doesn't injure the plant, but removing leaves does. So cut flower stems short, leaving at least two leaves per stem on the plant.

Fertilization: Peonies that are well-established in a fertile, well-prepared soil and that are kept weed free will not require additional fertilizer for one or two years. As they age, an annual application should prove beneficial. The best time to fertilize is immediately after the flowering season. This will enable the plants to make rapid, sturdy growth and develop strong buds for flowering the next spring. One fourth cup of complete fertilizer per plant, such as 10-10-10 or 12-12-12, scratched into the soil surface annually is adequate.

Refuse disposal: Peonies become dormant in late September or early October. At that time, cut the stems as close to the soil level as possible without injuring the crowns, and remove all refuse. This is the surest and most economical way to prevent and control spread of insects and diseases.

For more information on the subject discussed in this publication, consult your local office of the Purdue University Cooperative Extension Service.