Division: Another Way to Grow

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Diversify your garden with little expense

Seasoned gardeners know that dividing perennials every few years represents a sure way to grow and diversify a garden with minimal additional expense. That may not have been your aim when you fell in love with the knock-out beauties in your yard, but if the prospect of dividing them makes you sigh, take heart. There are benefits.

Division presents an opportunity to escape soil diseases and pests and/or improving the light, soil or moisture of a struggling plant. Sometimes you want to temper a too-vigorous plant by moving it to a more marginal environment. Perhaps your plant sports color or form you'd like to emphasize in your overall design palette. Now is the time to increase its eye-popping effect.

Newcomers to gardening often grow perennials in the hope they will be permanent. Alas, nothing in a garden is forever, but the good news is that with proper division and soil renewal, your favorites can be restored to their loveliest.

Decline in bloom and appearance is caused by root congestion below the soil surface. As roots migrate toward soil that is not yet exploited for nutrients, the plant exhibits telltale symptoms—center dieback, sparse regrowth, smaller blooms or fewer flowers, or invasion by other plants.

A few perennials remain good looking for up to 6-10 years, but the vast majority will need attention every 3-5 years if they are to show and grow well. Ironically, plants given optimal conditions to thrive may need to be divided more often than those in less ideal conditions. And certain short-lived perennials persist in the garden only if regularly divided. Monitor your plant for telltale symptoms of decline to decide when the time is right to divide.

At what time of year should you divide your perennial? The general advice is, divide fall bloomers in spring and spring bloomers after bloom. After bloom is the time when a plant's energy goes to root growth rather than leaf and flower growth. Dividing after bloom gives the plant a natural advantage. Some experts, however, advise dividing *all* flowering perennials in spring, especially if you live in northern climates or at altitude where the ground is generally cool, root development slow, and where frosts come early and unpredictably.

Broadly speaking, perennials can be divided at *any* time the ground will not be frozen for 6-8 weeks. Given enough care and maintenance both before and after division, even summer division is possible. As a result, plants continue to give off moisture even as they

are less able to take it up. Dehydration following division and transplantation is the largest source of stress, so summer heat can aggravate a plant's effort to establish itself. Yet, if steps are taken to reduce top growth and sun exposure while providing constant moisture, many plants will take root.

Autumn bloomers, such as aster, rudbeckia and sedum, may be divided in late fall if necessary. However, plants and seed heads left in place through the winter will provide more food for birds and beneficial insects. *Photo by Christine Farrow/WSU Skagit County Master Gardeners.*

Fall may be overlooked as an ideal time for division, particularly in the maritime Northwest. With the soil warm and dry from months of summer sun, the air is still mild, and rain will soon follow, so fall offers optimal conditions for rapid root development with far less threat of disease.

Be mindful, if you live at altitude. An early fall frost may require that you take steps to protect vulnerable transplants. It's better to divide early in September, well in advance of average first frost.

Before lifting your perennial, be sure to water it well. Have a plan in mind for relocating healthy divisions. Re-planting in a different site minimizes the buildup of disease and insect pests. Amend soil in advance with compost, leaf mold or well-rotted manure. A handful of bone meal adds slow release phosphorus to encourage root development.

Materials you'll need depend upon the plant size and root system, and having all equipment at hand greatly speeds the process and reduces plant stress. In all cases, collect a basin or hose for washing soil from the root system; burlap to cover divisions while you are working on them; a sharp spade or shovel for digging large clumps; and a hand trowel for smaller shallow rooted ones. Other tools necessary to separate the roots may include a set of garden forks, a sharp kitchen knife or scissors, a saw or cross-bladed shears. If the

plant's roots are delicate, your fingers alone may suffice. With particularly tough, woody and difficult roots, an axe may be useful but only if your aim is true; a saw may be the more prudent tool.

Perennial root systems fall into one of three categories: fleshy, fibrous, or rhizomatous. Each is divided differently. Fleshy or clumping roots are thick, tough and often hopelessly intertwined. Daylilies and torch lilies are examples of fleshy-rooted perennials. Divide fleshy-rooted plants by cutting the "crown" where roots and stems join. Make sure each piece has a few buds and their attached roots. A sharp spade is the best tool for this job.

LEFT: Use two large garden forks to pry apart a large established clump of Hermerocallis, exceptionally helpful when the clump is too large and heavy to be handled easily. The forks will exert enough pressure to separate the roots without slicing through them. **CENTER:** Lightly mulching newly divided plants in the fall will help to protect tender roots that may be exposed by heavy rains or settling soils. **RIGHT:** Remove old soil from the root clump with a gentle stream of water to make it easier to separate the plants and helps to remove any weeds that may be present. *Photos by Christine Farrow / WSU Skagit County Master Gardeners.*

Fibrous roots, such as those of Shasta daisy and campanula, are by far most common and easiest to divide. These roots travel in all directions from the base and are often shallowly located.

To divide a perennial with fibrous roots, first dig an area encircling the plant along a line below the tips of the foliage. Take hold of the freed ball, rocking and lifting it gently until the plant gives way. Dig deeper as necessary, taking care to preserve as much root mass as possible. Shake, tease and wash away soil until the roots and the crown are clearly visible.

Each division should have a growing crown or two and some fibrous roots attached. Discard dead or rotted sections. Select healthy, robust sections. Thin out any matted roots, and trim off long or broken roots to stimulate strong root growth.

Trim top foliage to within a few inches of the crown. Plant divisions in new soil, setting the crown on a small hill in the amended hole with roots gently splayed evenly about the hole. Support the plant as you fill the hole with water to saturate the root zone (and remove all air pockets) and then shovel in soil making sure the crown rests at soil surface level.

Rhizomes, the hallmark of bearded iris, bergenia and a few other perennials, are actually continually growing, horizontal underground stems with shoots and roots, frequently pushed up out of the soil, exposed, with the failing plant keeled over. They can be identified by their bulging form, tough skin and moist meaty interior. Rhizomes, while not difficult to divide, can be prone to root rot and root maggots.

Before you dig, sterilize your tools using a solution of 1 part bleach to 10 parts water. Lift with a garden fork. Using a sharp knife, cut away and discard rotted spots and dried out hollows. (You can also split rhizomes with your hands.) Dip divided sections in the bleach solution and let them dry briefly in the shade before replanting. Cut iris foliage to one third its original length. Arrange the divisions in a shallow trench or circular shallow hole. Cover rhizomes with just 2-3 inches of soil and water thoroughly.

Don't be disappointed in the decline of a star performer in your garden. Divisions with soil restoration will jumpstart its good looks. Plan your relocation in advance, and then get to it. Your garden can only improve.

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