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## G87-828 Growing Perennials

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## Growing Perennials

**Planning, soil preparation, and maintenance are necessary in growing a perennial garden of color and interest throughout the growing season.**

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Herbaceous perennials are non-woody plants that live two or more years under local conditions. The above ground parts of these plants are generally killed to the ground by frost in the fall, but the roots and/or underground parts live through the winter. Growth is renewed and the cycle begins anew in the spring.

While perennials do not require yearly replanting, they still require regular maintenance. For best results, a proper site analysis, soil preparation and routine maintenance are necessary. With proper attention to these details, a perennial garden can provide color and interest in the landscape throughout the growing season.

### Site Analysis

Do a site analysis before purchasing or planting any perennials. Notes should be taken on soil type, exposure and the amount of sunlight, shade and wind that each perennial bed will receive. Most flowering perennials prefer six to eight hours of sun per day. Several perennials are adaptable to different situations, although certain conditions like heavy shade and wet soils will reduce plant selection. It is important all site conditions are known and that adaptable plant material is used.

### Soil Preparation

Soil quality is probably the most important factor in determining the success of a perennial flower planting. Adequate soil moisture is needed during the growing season but it is very important that the soil not stay excessively moist during the winter dormant season. To improve waterlogged soils, add drainage tile, raise the bed or incorporate organic matter such as compost or peat moss. Most perennials grow best in slightly acidic soils (pH 6.5 to 7.0). A soil test can be made to determine soil pH. Soil amendments should be added and worked in to a minimum depth of 6-10 inches prior to planting.

### Selecting Plants and Planting

**Selecting Plants.** Perennial flowers are sold both in containers and bare-root. Plants should be healthy and show no signs of disease or nutrient deficiency. Container grown plants should be removed from the container to examine the roots. Healthy roots should be white and be able to hold soil. Do not buy plants with dark colored and/or tightly coiled roots. Bare-root plants should be checked to ensure roots have not dried out and that the young shoots are not wilting.

**Container Plants.** Generally, container-grown plants can be planted throughout the season. Most often they are planted in the spring. Perennials that are grown in the greenhouse should not be planted until after danger of frost (32°F) has past, much like annual bedding plants and vegetable transplants. Container-grown plants that have been exposed to outside temperatures throughout the winter can be planted as soon as the soil can be worked, about the same time trees and shrubs are planted. Fall planting of perennials promotes development of roots before onset of winter.

**Bare-root plants.** To avoid drying out, perennials bought bare-root should be planted as soon as possible. Roots should be spread out and soil placed and firmed between them when planting.

**Planting depth.** A majority of perennials should be planted out at the same soil level as they were in their containers or grown at (bare-root plants).

## **Routine Maintenance**

Once established, most perennial flowers require only routine maintenance. Watering, fertilizing and mulching are essential maintenance practices that help perennials perform at their best. Thinning, pinching and deadheading are maintenance practices that promote longer bloom periods.

**Watering.** Although water requirements of perennials can vary greatly from species to species, most require supplemental watering until well established. One inch of water a week is suitable for plant establishment. Once established, many perennials will require watering only during prolonged dry periods. Select waterwise perennials to reduce the need for supplemental watering. Watering should be deep, infrequent and applied directly to the soil. This type of watering will promote deep rooting and will help reduce leaf diseases.

**Fertilizing.** With proper soil preparation and improvement before planting, most perennials require little additional fertilization. Application of a 'starter' fertilizer when perennials are first planted may aid in more rapid establishment of the root system. For established plants, an annual application of a balanced, slow release fertilizer can be beneficial. Fertilizers high in nitrogen should not be used as nitrogen promotes excessive foliage production at the expense of producing flowers and a strong root system. Apply fertilizer so it does not come in contact with the leaves, as it may scorch them.

**Staking.** Exposure to wind varies with the site. Thought should be given to staking, particularly if growing taller perennials such as delphinium or lilies on windy sites. It is best to stake plants when they are first sending growth up because smaller plants are easier to work with and less likely to be damaged by staking. Staking early is also more aesthetically pleasing because new plant growth will cover the stakes. A stake two-thirds as high as the stem's mature height should be pushed into the ground near the base of the shoot. Be careful not to harm the plant's roots. Secure the shoot to the stake using twine.

**Mulching.** Mulch applied around perennials will help suppress weeds and improve soil structure while conserving soil moisture. Apply approximately 2 inches of a coarse mulch around the perennials, being careful not to apply too much around the crown of the plant. Excess mulch around the crown may hold moisture in and result in increased disease problems.

**Weeding.** Hand weeding reduces competition for water and soil nutrients. If herbicides are used, do so carefully, as not to harm the perennial flowers.

**Flowering.** Thinning dead and damaged shoots during the early stages of growth encourages stronger and healthier shoots. In late spring or early summer, when the plant is about one-third of its mature height, pinching can be done to increase flower development and encourage side shoot development. Pinching back new growth will help produce bushier plants which are less likely to require staking. Unless seedheads are used for winter decoration or seed is to be collected from them, flowers should be removed when they begin to fade. Deadheading may also promote additional flowering.

**Fall Cleanup.** Once perennial plants have finished growing in the fall, cut the shoots down to the base (or leave 2 - 6 inches) and remove the debris. For plants that have some winter aesthetic value, like *Sedum* sp., cleanup can be left until spring.

**Winter Protection.** Perennials damaged or killed during the winter usually are not injured directly by cold temperatures, but rather by rapidly fluctuating soil temperatures known as frost heaving. Frost heaving occurs when the soil alternately freezes and thaws, resulting in damage to the dormant crown and root system. Mulching in late fall with woodchips, pine needles, clean straw or other loose materials will help stop frost heaving. Do not use tree leaves or grass clippings as they may compact around the plant. Winter mulches should be applied after the ground freezes, usually in late November, and removed in early to mid-March.

## Dividing

Most perennials can be divided, and in fact need periodic division to maintain vigor and maximum flower production. This may need to be done annually, as with hardy chrysanthemums, but is usually only necessary every three to four years. Some perennials, such as baby's breath (*Gypsophila paniculata*), never should be divided.

**Timing.** The time of year when perennials are divided is a major factor in determining their success. Species that bloom from mid-summer to fall, are best divided in early spring, before new growth has begun. Perennials that bloom in the spring to early summer should be divided in the fall, or after the foliage dies. Exceptions are iris and daylilies, which are divided immediately after flowering.

**Preparation.** To divide a perennial, first remove the plant from the ground by digging around and under the entire plant and lifting it carefully from the soil avoiding root damage. Shake loose soil off the roots gently. Remove and discard diseased parts and cut back the top of the plant (stems, shoots, leaves) to about 6 inches.

**Dividing.** Fibrous rooted plants often can be divided by hand or by using two forks back-to-back. Divisions usually are taken from the outer perimeter of the plant, as this younger area tends to produce more healthy and vigorous growth. Plants forming a woody center or that have solid roots can be divided by using a sharp knife or a spade to cut through the crown. Divide the plant in such a way that each new division has at least three buds that will produce new shoots.

**Replanting.** Replant new divisions as soon as possible. Rework the soil if necessary to improve drainage and structure. Dig a hole of adequate size, allowing room to spread out the root system of the division when planting. Take care to replant the division at the proper depth. Water well and protect the plant from the sun on bright, warm days. A winter mulch is needed for divisions that are replanted in late summer or fall to help prevent frost heaving.

## **Insects and Disease**

If the perennials are not growing well, in spite of using adaptable species and planting in suitable locations, check for insects and diseases. Thrips and aphids are common insects affecting plant growth. Mildews, leaf spots, molds, rust and viruses are common diseases that may infect perennial plants. To help prevent insect and disease problems, all debris should be removed from the garden and clean tools should be used.

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