

Supporting Herbaceous Plants in a Flower Garden

Over the years, plant breeders have developed some plant varieties that are compact, with strong stems that do not require support to hold them upright such as dwarf bedding Dahlias (*Dahlia pinnata*). There are, however, plants with heavy flowers (*Paeonia lactiflora*, Chinese Peony) or tall stems (Hollyhock, *Althaea rosea*) that are top heavy and will require some assistance. Other examples include weak stemmed plants, plants in high wind or heavy rain areas, or plants grown in areas with less than optimum light levels. Many methods have been devised for supporting plants. The support should be large enough to firmly hold the stem, yet small enough to be inconspicuous. In addition, the support should be adaptable to the plant's growth habit.

Using Stakes to Support Plants

Stakes are made from many materials and available in several lengths. No matter what type is used, stakes should not be prominent or higher than the plant. To prevent them from being noticeable, stakes should be 4 to 8 inches shorter than the mature plant height, yet long enough to be pushed into the ground 8 to 10 inches deep. For example, most Giant Zinnias (*Zinnia elegans*) and African Marigolds (*Tagetes erecta*) will require 2-foot stakes to help support their large heavy flowers, as will perennial Bellflowers (*Campanula glomerata* and *C. persicifolia*). Cleome (*Cleome spinosa*) will need a sturdy, 4-foot stake because it will grow 4 or 5 feet tall, and because of its height, it will be more susceptible to damage rain or wind damage.

Type of stakes

- Bamboo stakes are natural-looking, ranging in diameters from ¼ to ¾ inch. They can be purchased

in various lengths, generally 2 to 8 feet. Some are painted green, which makes them less noticeable.

- Wooden slats and stakes are stronger than bamboo and can support heavier plants. Wooden stakes range in widths from ½ to 1½ inches and may be pointed at one end. Narrow, flat, wooden slats are about ¾ inch wide and can be found in redwood, cedar, or pressure-treated southern pine. These wood materials can often withstand constant moisture and are slow to rot.
- Twigs and branches can also be used as stakes, at no cost to gardeners.
- Wire and plastic stakes are strong, yet lightweight and easy to store. However, they tend to be more expensive. Wire stakes are often sold in 2-foot lengths, painted green, with or without a loop at the end. Also, homemade wire stakes can be constructed from metal coat hangers.

Staking and Tying Individual Plants

Sometimes large plants, for example the perennial Giant Sunflower (*Helianthus giganteus*), produce such heavy flower heads or such long flowering stalks that they must be individually staked to be shown at their best. The stake should be placed as close as possible to the stem, but not so close to risk damaging the plant's roots. Green garden twine, pieces of Velcro, soft string, flagging tape, or twist ties can be carefully used to tie each plant to the stake. Twist ties, thin wire embedded in plastic or thick paper strips, can be bought in rolls. They are a very handy substitute for string. The string or twist tie is first tied tight around the stake and then

the ends are tied in a loose figure-eight loop around the stem. This is done so that the tie does not bind, pinch, choke and subsequently damage the living stem as it grows. Tall, heavy-stemmed plants like Larkspurs (*Delphinium ajacis*) should have individual stakes, with each plant tied to its supporting stake at several places along the stem. As the plant grows, periodically check to see if another tie should be added above the others to secure the newer terminal growth of the stem. Without this careful attention, the top of the plant may snap off.

Supporting groups of plants with stakes and string

Certain flowering plants are more effectively supported by crisscrossed strings in a grid or triangular pattern, between two rows of stakes, spaced about 6 inches apart. Cosmos (*Cosmos bipinnatus* and *C. sulphureus*), which have delicate stems, benefit from this type of support and are planted close together. Many-stemmed plants like Delphinium (*Delphinium ajacis*), and Siberian Iris (*Iris sibirica*) also profit. Use soft string such as green garden twine so that fragile stems are not damaged when rubbing against the string. Compared to brown, green twine blends in better with foliage. To accommodate growing plants, there are usually two or three levels of crisscrossed strings. As the horizontal grid supports plants as they grow through it, the string will be hidden by the foliage.

An easier method is to simply place three or four stakes around the outside of the planting and connecting all stakes with a string. This keeps foliage together in one mass and prevents stems from falling down during a strong wind or rain storm. It is not as attractive as crisscrossing the strings, but it takes less time to support plants this way. Finally, plastic netting, with about 6 inch squares, can be stretched over the top of a planting and stapled to wooden garden stakes at the perimeter to make a horizontal support. The plastic is not as gentle on the stems compared to soft string, however, it is less time consuming than crisscrossing string and tying it to the stakes.

Metal hoops and cages

There are many other creative techniques for supporting herbaceous perennials. Most materials can be found at the local hardware store or garden center, or handy gardeners can make a homemade supporting device themselves. Green, round wire hoops and various wire cages blend in well with the stems and foliage. Triangular or round wire tomato cages are about 4 feet high, but each one can be cut in half with wire cutters to make two 2-foot cages for shorter plants. Trellises, usually with two levels of rings, originally made for peonies, can be used for taller bushy annual flowers

such as Corn Poppies (*Papaver rhoeas*) and Mealy cup Sage (*Salvia farinacea*). As long as the cage is set among plants early, when young plants have only reached a third of their growth, it will eventually be covered by mature plant growth.

Twig Branches

Twig branches or brush pruned from shrubs can be pushed into the ground to support plants such as certain *Coreopsis* species such as *Coreopsis tinctoria*. Two plants that provide good twiggy material are Cherry (*Prunus serotina*) and Gray Birch (*Betula populifolia*). Some gardeners grow Privet (*Ligustrum vulgare*) just for this purpose. To prepare twigs for this type of use, prune plants in the fall and allow them to dry during the winter so that they won't take root and grow when stuck in the ground the following spring.

Prepared by Phyllis Lamont, consumer horticulture center library coordinator, Kathleen M. Kelley, assistant professor of consumer horticulture, and James C. Sellmer, assistant professor of ornamental horticulture

Penn State College of Agricultural Sciences
Department of Horticulture
102 Tyson Bldg
University Park, PA 16802
October 31, 2002

The Horticulture Fact Sheet series is produced for home gardeners and professionals by the Consumer Horticulture Center at Penn State. The complete series is available on the Web at <http://hortweb.cas.psu.edu>.

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Issued in furtherance of Cooperative Extension Work, Acts of Congress May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture and the Pennsylvania Legislature. T. R. Alter, Director of Cooperative Extension, The Pennsylvania State University.

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