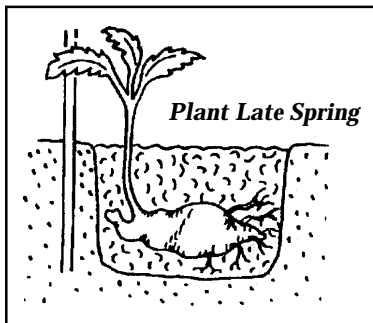


Home Grounds Fact Sheet

Culture of Dahlias

The Dahlia, a native of Mexico, was grown by the Aztec Indians as early as the fourteenth century. The extremely wide color range and the variety of flower types in the cultivated dahlias of today result in their being a most popular garden source of late summer and early fall flowers. The color range includes white and nearly all shades and tints of yellow, orange, red and purple. The American Dahlia Society has established an official classification to cover the 14 different flower types. Dahlias are grown as specimen plants, in a mixed perennial border, for cut flowers, and used for bedding purposes.



Dahlias give best results when planted in full sun in a moist, well-drained garden loam. While they must have adequate moisture during the growing season, they will not be satisfactory if the soil is poorly drained.

Where the soil is a heavy clay, it is best to prepare the ground by working in liberal amounts of well-rotted manure, peat moss or compost to a depth of 12 inches. This is done in spring or fall. If done in the fall, the ground should again be worked over in the spring and prepared for planting. An application of 5-10-5 or similar analysis granular fertilizer should be worked in at the rate of 3-5 lbs./100 sq. foot. No further fertilizer containing nitrogen should be added during the growing season or the result will be vegetative growth and no flowers.

In planting the tuberous roots, dig holes 4-6 inches deep (4 inches in heavy soil and 6 inches in light soil) and wide enough to accommodate the tuber. Place the tuberous root flat in the hole in a horizontal position, with the eye or bud facing upwards. At the time of planting, it is advisable to put a 4 foot garden stake about 1 inch from the end of the root bearing the bud. The young plant can thus be given support all the time until it reaches full growth. Cover the root with 2-4 inches of soil. As the shoots grow, continue to fill in the

hole until it is level with the surface of the soil. Not more than one tuber or root should be planted in a hole. This allows the plants to grow and spread, allows air to circulate among the plants, and provides ease of cultivation. The tuberous roots are planted when all danger of frost is past, generally about mid-May on Long Island.

As the plants grow, they should be tied to the stake that was set at planting time. The plants should be cultivated about once a week during the summer, eliminating weeds and keeping the soil in good condition. When plants are in flower and spaces between them are filled with foliage, further cultivation should not be necessary. Irrigation need only be considered during dry weather (and then applied infrequently but deeply, 1-1/2 inches every 7-10 days).

Some dahlia varieties grow straight up with a single stalk. In order to obtain symmetrical, well-branched plants, they should be pinched when about 1 foot high. Take out the top just above the second or third set of leaves. In general, pinching gives a better show of flowers in the pom-pom, mignon and bedding types. Other varieties produce too many stems, in which case some may be cut out. If large exhibition flowers are desired, the plants should be disbudded and the side shoots removed.

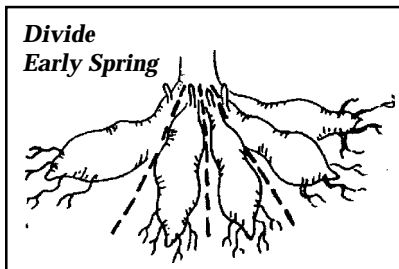
Propagation

Commercially, stock is increased by starting tubers in the greenhouse in December or January and taking softwood or leafbud cuttings from the new growth. The most popular method of propagation among gardeners, however, is division of the roots. Propagating dahlias from seed, especially the bedding types, is a relatively easy process. If the seeds are sown in March in the greenhouse or hotbed, the plants will be in full flower by the time they are set in the garden, usually during the middle of May.

They will continue to flower all season. Seeds can also be started under lights in the home in flats of a moist peat-lite mix. Prick off the seedlings several

A-2-8 DWM:cms revised RT 10/00

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A large clump of roots may be divided at any time after lifting, but it is best if done just prior to outdoor planting when the eyes or sprouts show distinctly.

Use a clean, sharp knife to cut the clump of roots into divisions. Be careful not to injure the new buds. The tuberous roots are connected to the main stem at the region known as the crown. It is in this region that the new buds or eyes are produced. Each new division should consist of only one tuberous root, and it should be detached so that any eye or bud will remain connected to it. Tubers with no eye or bud are called "blind" and will not form new shoots. They should be discarded.

weeks later and then move outside when frost is no longer anticipated.

Storing Dahlias

The dahlia root should be dug immediately after frost has killed the top. In digging, lift the tubers carefully from the ground so they are not broken or injured. The soil should then be carefully pulled away from the roots with the hands. It is not wise to shake the soil from the clump as this may break the tuberous roots at the slender neck by which they are attached to the crown. Allow the plants to dry in the shade or a dry basement for a few days, cut back the stems to about 4 inches and clean up the tubers. Place them in flats or boxes. Whatever the method used to store tubers, they should be examined monthly. If roots are shriveling, it may be necessary to add a little moisture to the peat or vermiculite and give the containers more covering. If rot or mold has set in, discard infected tubers and provide greater air circulation. Storage temperature is also very important. The ideal is between 40 and 45½ F. The roots may be stored as high as 50½ or as low as 35½ but these temperatures are less satisfactory.

Plant Problems

Integrated Pest Management (IPM)

Considerations

IPM is a common sense approach to pest control and plant care. It employs a number of measures to prevent, control or reduce plant problems. These include using resistant plant varieties, proper plant selection and placement, good aftercare and biological and/or mechanical controls. As a last resort, after all other remedies have been explored, a pesticide* that is least toxic to people and natural predators, can be considered. Prior to using any pesticides, plants should always be monitored for the degree of infestation and a sensible control measure considered.

* A pesticide is a substance that kills, or attempts to kill, a

particular pest, e.g. insecticide, fungicide, herbicide, etc.

Disease

Botrytis blight

Powdery mildew

Stem rot and wilt

Viral diseases

Management Practices

Practice plant sanitation (1)
water early (2)
improve air circulation (3)

Improve air circulation (3)
water early (2)

Improve soil drainage, rogue plants (4)
practice crop rotation (5)

Rogue plants (4)
spray to manage aphid vectors
(see following entry)

If you choose to use a chemical pesticide, contact your local Cooperative Extension for specific recommendations.

- (1) When plants are not wet, carefully remove and destroy or discard affected plant parts or portions. In the autumn, rake and remove all garden debris.
- (2) Avoid wetting foliage if possible. Water early in the day so the above ground plant parts will dry quickly.
- (3) Avoid crowding plants. Space apart to allow air circulation. Prune to thin plants or plantings.
- (4) Remove and destroy or discard entire infected plant and immediate surrounding soil or soil clinging to roots.
- (5) Locate new plants in a different part of the garden. If that is not possible, remove infested soil and replace with fresh soil.
- (6) Some pests of dahlias are aphids, beetles, leaf-hoppers, spider mites and thrips. The use of insecticidal soap is a least toxic recommendation. If you choose to use a chemical pesticide, contact your local Cooperative Extension for specific recommendations.

"This publication contains pesticide recommendations. Changes in pesticide regulations occur constantly and human errors are still possible. Some materials mentioned may no longer be available, and some uses may no longer be legal. All pesticides distributed, sold or applied in New York State must be registered with the New York State Department of Environmental Conservation (DEC). Questions concerning the legality and/or registration status for pesticide use in New York State should be directed to the appropriate Cornell Cooperative Extension specialist or your regional DEC office (631) 444-0340. Read the label before applying any pesticide. Cornell Cooperative Extension and its employees assume no liability for the effectiveness or results of any chemicals for pesticide usage. No endorsement of products is made or implied."