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Cultural Notes

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DAHLIAS *for* DELIGHT

QUANNAPOWITT DAHLIA GARDENS
WAKEFIELD, MASSACHUSETTS

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Cultural Notes

Kind of Soil and Location

THE dahlia does best in a light, mellow loam; a heavy clay soil will produce an abundance of foliage, but few and inferior blossoms. Any soil well adapted to the growing of corn and potatoes should give satisfactory results. A wet, heavy, soggy soil is most unsatisfactory and should be avoided. The dahlia will readily adapt itself to almost any soil or situation, except dense shade and wet, sour soil. You will find dahlias growing in the warm climates of California and Mexico, and in parts of Alaska and throughout most parts of the United States. It is very flexible in its climatic habits. In some instances it may require two years' planting to acclimate, so do not be discouraged if the looked-for results are not secured the first season.

Preparation of Soil and Fertilizers

You should plow or spade soil as deeply as possible. I plow to a depth of ten to twelve inches. The depth will be governed to some extent by the conditions. In some places

the soil has much greater depths than in others. Where it is intended to plant in stiff, heavy sod you should turn over in the fall of the year, so that the grass and grass roots may, at least, partially, if not entirely, decay. Then spade or plow again before planting in the spring. You need not expect satisfactory results by planting in a dry, hard soil. If your soil is poor, a little well-rotted stable manure spread over in the fall of the year and spaded under in the spring will be beneficial. Should you not be able to do this, an application of sheep manure as purchased in a pulverized condition is highly recommended. Under no circumstances use fresh manure. More dahlias are ruined from over-fertilization than from not having the soil rich enough. Where the soil is known to be sour, or if you find a greenish surface condition develop during the growing season (more cultivation necessary as well), you should apply a light application of slacked lime at the rate of 500 to 1,000 per acre, or about two pounds to 100 square feet—judgment will have to be used. Lime is rather strong, and I prefer a fall or early spring application, so that the rains may work it well into the soil.

Unleached hardwood ashes applied before planting, sown broadcast over the soil after

spading or plowing, and raked or harrowed into the ground, is a most satisfactory aid to good dahlias—applied at the rate of about 2,000 pounds per acre, or about five pounds to 100 square feet. Such wood ashes contain about fifteen per cent potash and will produce more and better tubers, stiff stocks and stems, and give greater depth to the colorings in the flowers. Your flowers will have better substance, not being so soft as where large applications of nitrogen are given.

If you cannot get the unleached hardwood ashes, I suggest a commercial fertilizer of 4-6-10 analysis—this gives you ten per cent potash and sufficient of the other chemicals to produce good results. Broadcast your fertilizer just as suggested with the handling of the wood ashes. I would apply this commercial fertilizer at 200 to 500 pounds per acre, or one pound to 100 square feet; if you apply both wood ashes and fertilizer, less of each can be used than when one only is used. Many recommend an application of steamed bone meal at about the time the buds begin to form; this will improve the size of the blossoms, but should not be overdone, as you may force to such an extent that few and inferior tubers will be the result. Where you have a clay soil, and the tendency is to bake and crack after a

rain, you can improve by spading in, before planting, fine coal ashes, but if applied too heavily it will only add to the baking condition already existing.

My plan is to plow the ground in the fall of the year, after harvesting the tubers, and sow to winter rye; this will give your ground winter protection and give a green manure to plow under in the spring. This is a mighty satisfactory method, as I am able to get some humus into the soil, which aids in moisture holding during the dry growing season and helps to keep a mellow soil condition. I use unleached hardwood ashes and a very light covering of 4-6-10 commercial fertilizer, to keep a balanced soil condition, and proper plant food, with lime at the rate of 500 pounds per acre every second year.

Planting

After your soil has been thoroughly raked or harrowed, you are ready to plant. You should avoid planting until the ground is warm; if planted when cold, the tubers may decay before growth sets in. Further, too early planting may cause your plants to be affected by the late frosts. The best time is from May 1 to June 15, depending on locality. I plant

about June 1. In planting, always place the tubers in a horizontal position and at a depth of about six inches below the surface. Never plant the tubers on end. Some plant dahlias in beds, others in hedgerows. When planted in beds, I think that three feet each way generally produces the best results and usually makes it possible to get through between the plants. Some varieties are more spreading in growth, while others naturally grow tall. Where you plant in hedgerows they can be planted as close as two feet and give an abundance of flowers. When planting at intervals of two feet in the row, I have the rows not less than three and one-half feet apart. In planting, the holes can be opened with a shovel and tubers placed as directed and covered to a depth of three inches; firm the soil with the hands or press lightly, but do not pack; fill in as the plants grow, until level. In commercial growing it cannot always be done, but the tuber should be placed with eye upward, otherwise the clump of new tubers will be formed upside down, and is more difficult of separation.

Dahlias will bloom in from eight to ten weeks after planting, some varieties being earlier bloomers than others.

Cultivation

You need not await the appearance of the new plants, but cultivate the ground, using an ordinary garden rake or a three to five prong garden tool. Exercise some care in doing this, so as to avoid breaking off the new shoots as they near the surface, the idea being to keep the ground loose and free from weeds. Cultivate as often as you can do so; there is no danger of over-cultivation; do this thoroughly up to the time of the appearance of buds. After that keep free from weeds, and merely break the surface of the ground with a rake—deep cultivation will break the many fibrous roots thrown out and up, reaching for plant food. There is more in cultivation than in heavy fertilization; this is true with any vegetation. A fairly good crop can be produced on poor soil by much and proper cultivation, but little can be grown from the best of soil when not cultivated. I want to impress on all the necessity of much and frequent cultivation.

Watering

Many persons drench their dahlias daily, which forces a tall, soft growth producing few blossoms. Water, when needed, should be

applied in the evenings, not merely sprinkling the surface, but soaking thoroughly.

Disbudding

In order to have long stems and large flowers it is necessary to remove many buds. To do this as it should be done you will pinch off the small buds on each side of the large terminal bud on the end of each lateral; then, going down toward the main stock, you will also remove the buds on both sides at two joints. This will usually leave one or more joints, from which additional or what is termed tertiary wood will form, and the same method should be followed in disbudding this. At least once each week, and, during a very good growing season, preferably twice each week, you should go over your plants and remove the buds. Some varieties require more disbudding than others, being free bloomers and producers of more laterals.

This process may appear as too laborious, but it is surprising how quickly you will find yourself doing it. You will need to devote but a couple of minutes to each plant when it is regularly done.

Please keep in mind that chrysanthemums, cosmos, roses, and others are disbudded to

produce the large, long-stemmed flowers you are so accustomed to see in the floral displays. It is not necessary to disbud unless you want large flowers and long stems. By not disbudding you will have many more flowers, smaller in size and with short stems. The results certainly justify disbudding, and I am sure you will find much pleasure and satisfaction in doing so, after once seeing the results of your efforts.

Staking

Many persons believe that it is always necessary to stake dahlias. Some varieties are dwarf in habit and do not need stakes under any conditions. Where planted in hedgerows or in beds close together, staking is not essential. If you plant at greater distances, staking is not necessary; if, when the plants are about eight to ten inches high, you pinch out the center or top, this will force side laterals close to the ground and will prevent a tall growing plant. Your plants will then produce these laterals and bloom at an earlier date. Of course, some varieties are tall growing, others spreading; some are dwarf, others medium. I have given heights as I find them in my gardens. Under different condi-

tions, as, for instance, close planting, the tendency would be to produce tall rather than spreading plants. You may find some variance in heights and general habits, due to soil, climatic, and other conditions which cause modification. When you do stake, I would suggest driving the stake into the ground and then opening the hole close to the stake for the tuber. If you place stakes after planting you may damage the tuber.

Pests

The dahlia is almost immune from pests and disease. You may find the black or green aphid, especially during a wet season, on the new stem growth; use for the aphid a nicotine spray or strong soap solution. In the case of the red spider, use cold water.

The black aster bug may bother the light-colored varieties, but by taking a bucket with some kerosene in it you can quickly pass the bucket under the branch affected and the bugs will fall into the kerosene.

Cutting

Dahlia blossoms should be cut in the late evening or early morning. I find that cutting

in the late evening proves the better method. Place them in vases of cold water, in a cool place, for the night, preferably in the cellar. As soon as cut, remove some of the leaves from the lower part of the stems, because the leaves standing in the water cause an acid condition in the water which will be absorbed by the blossoms and cause them to fade sooner than otherwise.

Many persons dip the stems to a depth of three to four inches into boiling water for about two minutes and then put into cold water. You can add to the keeping of the flowers by putting one teaspoonful of salt to a quart of water, or by adding a small amount of household ammonia to the water. This will, to some extent, offset the acid condition created in the water. An aspirin tablet in the water is as good as anything I have so far tried.

Some varieties have better keeping qualities, when cut, than others. I have had blossoms keep in the house in good condition for one week, even without changing the water. You should change daily or even twice — morning and evening. At the time of doing this it is well to spray the blossoms with water, as they will absorb about as much through the petals as through the

stems, and you are just supplying that which nature does in the form of dew.

Lifting Clumps and Storage

In the fall, when your plants have been frosted, the harvesting can be done. Cut off the stalks reasonably close to the ground; take a long-pronged garden fork and remove some of the ground around the clump—care must be used not to thrust the fork down into the tubers. Then, going around the clump at a distance of twelve to eighteen inches, thrust the fork down and loosen up the ground, and the clump can then be picked up by the stem. Be careful to see that the long, fibrous roots on the ends of the tubers are free; otherwise, in lifting up the clump you may break off some of the largest and finest tubers. Holding the clump in one hand, take a stone or block of wood and tap the end of the stem so as to gently remove all soil. Set the clump on the ground, and if there is good sun and wind, leave to dry for about two hours; if the day is dark and cloudy, longer time may be necessary. All that is necessary is to have the clump dry before storing in a cool place; if placed where exposed to the outside air for several days, you will find that

some of the tubers may show a tendency to shrivel. Keep them away from any heat or where they may freeze in severe weather; a temperature of about 40 degrees seems to give the best results. When storing the clumps, place in a box in an inverted position, that is, with the stems downward, so as to allow any accumulation of water or sap to drain from the stems. Do not put a large quantity in barrels or boxes, since those at the bottom may rot, due to lack of proper air circulation. If cellar is dry put burlap covering over the boxes, to prevent evaporation.

I do not recommend packing or storing the tubers or clumps in ground or sand during the dormant season—the chances are they will be lost. You may place them in ground or sand a short time before planting season to start the sprouts, but this is not necessary unless you are unable to divide the clumps, except when the eyes show.

Separating Clumps

This can be done any time after lifting. Many separate immediately after lifting, while others prefer waiting until spring. The time of separation will be largely controlled by conditions of storage, quantity to be stored, and locality.

The clumps are more easily separated at harvesting time, as they are easier to cut and you will need less storage space. Unless you have had some experience in separating I would suggest spring as the better time. You will then find the eyes are more prominent, which will be a guide for you in the separation. At the point where the tubers are attached to the clump is the crown which contains the eyes, and without a portion of the crown containing one or more eyes, your tubers are worthless.

General Remarks

I now have brought you back to planting time, and in covering briefly the most important phases of dahlia culture, I don't want you to feel that it is a delicate plant or one that requires an unusual amount of care or attention; I am anxious, however, to have you meet with much success in growing dahlias, because I know that if you are not already an enthusiast, when once you see them, and realize the beauty in them, you will join the already large army of dahlia "fans."