

PROPAGATION OF DAHLIAS.

By

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DAHLIA, no doubt, is one of the prettiest of flowering plants that should not be absent from even the smallest garden. It is a common belief among local gardeners that it can be propagated only by tubers. The writer has for some time been investigating the methods of propagation of the Dahlia and is of opinion that vegetative propagation by cuttings is the quickest and the easiest method which can be adopted by every Dahlia fancier.

Dahlia is a native of Mexico. It was discovered in Mexico by Francisco Hernandez in 1575, and introduced into Europe in 1789 by Vincente Cervantes, Director of the Botanic Gardens, Mexico, who sent seed or tubers to Abbe Cavanilles, Director of the Royal Botanic Gardens, Madrid.

Cavanilles in 1791 named it "DAHLIA" after the Swedish Botanist, Mons Andre Dahl and "pinnata" because of its pinnate leaves. Later he described two other forms, *D. coccinea* and *D. rosea*, and these three Dahlias form the parents of all the dahlias existent. Kew received these dahlias in 1798 from Madrid. From that time onwards dahlias became a very popular flower both in England and the continent, and the number of varieties artificially produced by hybridization is very great.

Although cultivation of the dahlia does not require much skill, propagation is not generally very well understood. It may be propagated in several ways, viz., by seed, cuttings and divisions of tubers. Seeds do not keep true to type as they will be the result of crosses brought about by insects that visit these flowers, the flowers themselves being self sterile. Hence the necessity arises for dahlias to be propagated vegetatively if one requires plants true to type and colour. On the other hand if new types are being sought plants should be first raised by seed and then having selected the desired types, these should be multiplied by vegetative propagation.

The easiest and the quickest method of propagation is by cuttings. When a large number of cuttings are required, dormant healthy tubers are placed in a bed closely packed and surrounded with a light soil mixture such as old potting material. The tops of the tubers are left exposed. No water should be administered until the tubers begin to throw out shoots. Some varieties shoot out very freely while others are shy. Some tubers produce shoots in clusters while others singly, from eyes near the top.

These shoots are taken off when about three to four inches in length, each provided with terminal bud and three to four sets of leaves. The cuttings are prepared for insertion by cutting them with a sharp knife just

below the bottom node and removing the bottom pair of leaves in each. They are then inserted without delay in a seed pan 20" × 14" × 3½" filled up with the following compost up to ¾" below the surface of the pan.

Leaf-mould (well decayed and sifted)	..	..	4 parts
Well decayed cow-dung	..	..	3 "
Sand	..	..	3 "
Red earth	..	..	2 "

After insertion they are watered and left in a shady place. A light watering may be given every evening on dry days. The cuttings root in about three weeks when they are repotted in 3-inch pots.

Divisions of tubers is the simplest way of increasing the stock of plants. The number that can be produced thus will be limited by the number of individual tubers to each root stock. When the tubers are dormant it is not quite possible to divide each tuber so that each section is provided with a dormant bud. In order to overcome this, tubers are buried in soil about two inches below the surface. This induces activity of the roots and dormant buds, and after some time shoots will be found to come out of the soil. When the shoots are fairly recognizable the tubers are dug out and cut so that each piece contains one or more shoots. These are then potted in 3-inch pots and placed in a shady spot. When they are big enough for replanting they may be exposed to the direct sun for about a week and finally transplanted into required beds.

Dahlias as a rule love sunlight and the open. As such if they are grown in partial shade, they are apt to grow much taller than normal and produce a lesser number of flowers. In any case they should be protected from the wind. As far as the soil is concerned they grow in any type of soil, but the ideal would be a sandy loam formed in with well decayed cowdung, leaf mould and lime. Lime to a very large extent keeps away white ants who will be normally attracted to undecayed leaves. The soil is then allowed to sweeten and good healthy plants are planted, shaded from the direct sun and well watered. After about a week when the plants are well established the shade is removed.

The spacing among the dahlias depends on the type grown. The bedding types should be planted from one to two feet apart. Paeony-flowered types and other decoratives two to three feet apart and the Cactus types four feet apart. In general the effect desired is a mass of bloom and planting should be done with that in view.

When the plants are well established they should be staked to prevent them falling over due to the weight of the foliage. This should be done rather intelligently. In the early stages a small stake is sufficient but as it grows bigger this same stake may not be able to support the weight of the plant and it has to be replaced with a larger and stouter one. In the majority of cases one stake may be sufficient for each plant. Where one stake is insufficient three stakes are driven obliquely close to the base of the plant widening outwards and formed into a triangle which supports the whole plant. Nothing is more objectionable in a garden than to see a mass of stakes driven indifferently. Good staking apart from keeping the plant erect and firm should be completely hidden or inconspicuous when the plant is fully developed.

When the plants are about to come into bloom liquid manure may be administered. This may be prepared by placing about a bushel of fresh cowdung in a gunny bag and immersed in a tub containing about 40 gallons of water for three or four days. A quart of this is added to three gallons of clean water and administered to the plants twice weekly.

The removal of faded flowers every morning is one of essential things that should not be neglected, as their continued presence not only gives the collection an elderly appearance but also causes them to terminate their flowering season prematurely.

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