



Planting and Care Instructions Dahlias for Pot Culture

Information to help you be more successful with our Dahlias

General Information

Dahlias originate from Central America. Flowering is regulated by both the temperature and the number of hours of light per day and light intensity. The information contained in this folder is intended to facilitate cultivating Dahlias as container plants in greenhouses. The purpose is to cultivate a flowering plant that can be traded as a finished product. Plants can be taken out of the pot and replanted in fertile soil in the garden, where it will flower and grow further until late autumn. The Dahlias can also be planted in 30 cm deep containers for the terrace or patio.

If the plants are put straightaway in the garden or patio and on the terrace after buying, this can be done as soon as there is no longer any danger of (night) frost. From then the plants will flower constantly until winter. They are easy to look after.

Dahlias are by nature beautiful shaped and brightly coloured. As garden plants or plants in containers they can be easily combined with other annuals or perennials. Dahlias are increasingly being used in this way. Garden centres and gardeners value this in particular. Selling potted dahlias adds to the sale of dry-selling of tubers and even prolongs the selling period until after the summer holidays. It offers the consumer a possibility to fill up immediately any empty space in the garden or on the terrace with flowering plants.

If the tubers are not planted immediately after arrival they should be stored at $\pm 50^{\circ}\text{F}$.

General instructions

- Always water them sufficiently
- Remove wilting flowers
- Add a fertilizer as soon as their growth slackens. A soluble type of fertilizer mixed in water gives excellent results. Use a well-balanced mixture, for instance NPK 20-20-20. For quantity please read the instructions
- Keep the plants free from parasites

Soil

For container growing we recommend a well-balanced and permeable mixture of earth, peat and garden turf. The mixture must be well drained, sterilized and should not contain bark.

PH: 6.5 - 7
EC: Week 1 – 4: 0.6 - 0.8 Week 5 - 10: 1.0 - 1.2

The target value for a potting soil:

| EC | PH | NH4 | Na | K | Mg | Ca | No3 | Cl | So4 | Hco3 | P |
|-----|-----|------|------|-----|-----|-----|-----|-----|-----|------|-----|
| 0,8 | 5,9 | <0,1 | <0,1 | 1,6 | 0,5 | 1,2 | 4,0 | 1,5 | 1,8 | 1,0 | 0,5 |

Value can be reached by apply of:

Organic fertilizer ± 2 kg per m^3 NPK 7-6-12+ 4Mg

0,5 kg PG-mix 12-14-24 + 2 - 2,5 kg Osmocote+ 15+10+12+2MgO+sp per m^3

A fungicide drench is always a good preventative, especially for pythium.

Planting and Container Size

We recommend to use one tuber per 1 Gallon pot. Plant tubers with the crown just below soil level. Particularly long roots or rootlets and possible old stalks that are too long should be shortened before a tuber is planted. After planting, the pots can be placed one against the other for the next 4 - 5 weeks. After for weeks give the plants some more space. Spacing allows more air movement and helps prevent fungal and stretching problems.

Pinching

Without pinching grow time is 8 - 10 weeks.

Pinching increases grow time with ± 2 weeks but results in a better shaped plant with more stems and buds. The best way to create a well-shaped plant is to cut the developed shoots just above soil level ± 2 weeks after planting. The plant will immediately develop new and more shoots.

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Light Conditions

In order to get the best performance of the plants, it is important to give the plants a lot of light. Lack of light may result in the plants becoming too long and limp. Grow dahlias with a maximum amount of available light with a minimum of 2000 foot candles.

A 14 hour day is required to keep dahlias vegetative, long days are needed for quality dahlia vegetative growth and timely bud development.

Temperature and Humidity

Week 1 - 4

Ideal growing temperatures range from 60 - 65 °F during the day and 55 - 60°F at night.

Week 5 - 10

Increase temperature to 68°F during day and 62°F at night.

Temperatures above 80°F can delay flowering. Warmer temperatures than recommended, will promote a more open habit and weak stems. Shading at midday may be necessary.

Humidity levels range from 50% to a high of 80%.

Watering and Fertilization

- Dahlias require that the planting medium stays moist, but not wet
- Week 1 - 5 EC can be maintained around 0.8, the next 5 weeks can be slightly higher
- Osmocote 14-14-14 can be incorporated into the soil at a rate of 4 - 6 pounds per cubic yard
- Constant liquid feed can be used at 200 - 250 ppm with 20-10-20 or 15-16-17
- A combination feed using a multi-headed injector with 20-10-20, 15-0-15 and 20-35 magnesium
- Potassium nitrate can be used to build stocky stems at 200 ppm

Target values

Vegetative crop

| EC | PH | NH4 | Na | K | Mg | Ca | No3 | Cl | So4 | Hco3 | P |
|-----|-----|------|------|-----|-----|-----|-----|------|-----|------|------|
| 0,8 | 5,9 | <0,1 | <0,1 | 1,7 | 1,0 | 1,5 | 2,0 | <0,1 | 1,5 | 1,0 | 0,25 |

Generative crop

| EC | PH | NH4 | Na | K | Mg | Ca | No3 | Cl | So4 | Hco3 | P |
|-----|----|------|------|-----|-----|-----|-----|------|-----|------|-----|
| 1,0 | 6 | <0,1 | <0,1 | 1,8 | 1,0 | 1,7 | 2,2 | <0,1 | 1,4 | 1,0 | 0,5 |

Pest and Disease prevention

- Thrip, mite, aphid and whitefly are potential pests. A preventative spray with adequate products is recommended
- A fungicide spray in combination with an insecticide spray to prevent powdery mildew is recommended

Growth Regulators

The grower should evaluate growth at 2 - 4 weeks after planting. 1500 ppm of B-9 can be used as preventative sprays. Use of growth regulators after week 5 (generative crop) must be avoided. It has negative influence on development of lateral shoots and post-production of flowers.



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Outdoor Growing

Apart from the greenhouse culture it is also possible to choose for a culture half indoors, half outdoors or a complete culture outdoors. In the culture half indoors, half outside the first 4-5 weeks the plants are grown in the greenhouse and by the time they need more space they are moved outside. It's preferable to select an overcast day, otherwise protect the plants to avoid the risk of scorching. Cultivation can also be done entirely outside. In that case planting can be started after night frost has disappeared. Grow time outside may vary a bit depending on circumstances as temperature and light. Outside care is identical to indoor care. See to it that the plants are always given sufficient water.

Keys to Success

- Good potting soil
- Good light levels
- 14 hours of day length
- Good average of day - night temperatures
- Moderate fertility levels
- A preventative drench and spray program

Claims or Comments

If you run into anything that is not acceptable to you as a grower, we need to know. Please call your sales representative and explain in detail where you have experienced the problems. We will do anything we can to help you and make our organization better in the future. We do our best to ship viable, healthy plants, but we understand that problems do occur. If you feel there is a problem, please write within 10 working days of receipt of your order so we may render any possible assistance. In all cases **we need pictures** of the individual plants, the complete shipment, roots etc. If your shipment has been damaged or shorted, note this on the delivery documents and file a claim with the carrier right away. Also please notify us of any delays. All claims, damages, spoilage and shortages must be reported to us in a written note or letter stating the problem **within 10 working days**.

Claims received after this period or claims that are not supported by pictures will be respectfully declined.

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