## The Gallery Dahlia

## Order Information - Bosgraaf Greenhouse. Inc. 2012-2013

## Gallery dahlias are available as a rooted 72 cell pac liner or as an unrooted cutting. The finish time is about 9 weeks from pinching.

| Minimum order: | 4 trays of 72 or 288 total plants. (8 trays of 576 total plants = 1 full box.) |
| :--- | :--- |
| Box size: | $21^{\prime \prime} \mathrm{X} \mathrm{21"X} 21^{\prime \prime}-$ holds 8 individually boxed trays. Winter and summer packed. |
| Box weight: | $30-35 \mathrm{lb}(6-8$ trays $)$ |
| Availability: | November 5,2012 - June 10, 2013 |
| Lead time: | 8 weeks - Late orders Dec.-May subject to availability of cuttings |
| Shipped: | FOB Hudsonville, Michigan |
| Care Tags: | Included in price - 1 tag per cutting |
| Royalty: | Included in Price |

## Soil

Use a well drained, sterilized planting medium, $\mathrm{pH} 6.5-7$. The medium should not contain bark.

## Planting: Fungicide drench

1. Bury 1 set of leaves to firm up the plant and pinch leaving 2 sets of leaves above the soil.
2. Dibble rooted cuttings into pre-watered pots and bury 1 set of leaves to firm up the plant.
3. A fungicide drench is always a good preventative, especially for pythium.

| 4. | Container size | \# of cuttings | finish time |
| :---: | :---: | :---: | :---: |
|  | 6 " or 1 gallon | 1 | 7-9 weeks |
|  | 8"-8.5" | 2 | 7-9 weeks |
|  | 10"-12" | 3 | 7-9 weeks |
|  | combination planters | 1 | 7-9 weeks |

## Fertilization \& Watering

1. Dahlias require that the planting medium stays moist, but not wet.
2. Week 1-5 the E.C. can be maintained for around 0.6 . The next four weeks can be slightly higher.
3. Osmocote 14-14-14 can be incorporated into the soil at a rate of 4-6 pounds per cubic yard.
4. Constant liquid feed can be used at $175-200 \mathrm{ppm}$ with $20-10-20$ or $15-0-15$.
5. A combination feed using a multi-headed injector with 20-10-20, 15-0-15 and 20-35 ppm magnesium, totaling 200 ppm .
6. Potassium nitrate can be used to build stocky stems at 200 ppm .

## Temperature - Humidity

1. Ideal growing temperatures range from 65-70 degrees during the day and 65-68 F. at night.
2. Temperatures above 80 degrees can delay flowering - shading may be necessary.
3. Humidity levels range from $60 \%$ to a high of $85 \%$.

## Light Conditions

1. Grow Dahlias with a maximum amount of available light with a minimum of 2000 footcandles.
2. If low light conditions persist, 400 footcandles of HID lighting can be added.

## Flowering - Photo Period Requirements

1. Long days are needed for quality Dahlia vegetative growth and timely bud development.
2. A 14 hour day is required to keep Dahlias vegetative. Use mum lighting.

## Spacing Requirements

Spacing allows more air movement and helps prevent fungal and stretching problems.

## Pest \& Disease Prevention

1. Thrip, mite, aphid and whitefly are potential pests.
2. Effective control can be used using Marathon, Avid, Maverik, Thiodan, Talstar, Orthene, Tame, and Decathlon and Duraguard.
3. Use of Dursaban and Vydate can cause leaf burn.
4. A fungicide spray in combination with an insecticide spray is recommended.
5. Zyban, Phyton 27, and Chipco can be used as preventive sprays.

## Use of Growth Regulators for Height Control

1. The grower should evaluate growth at 2-3 weeks after planting.
2. 15-45 ppm of Bonzi can be used as a spray or 3 ppm of Bonzi as a drench on the more vigorous varieties.

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1. All dahlias need 14 hours of day length to grow and stay vegetative.

- Growers must extend the day with mum lighting to 14 hours.
- Failure to do so causes dahlias to form tubers, flower profusely and shut down growth and become dormant.
- Bury 1 set of leaves which helps firm up the plant as it grows.

2. Low temperatures can cause dahlias to grow very little if at all.

- Day and night temperatures of 65 F. keeps dahlias growing. We use 68 F . as the bench mark to keep roots moving and vegetation forming.
- Initial temperatures are key to plant growth and development.
- Low temperatures can also cause roots to remain wet and contribute to root rot and other fungal diseases.

3. Using a fungicide drench as a preventive.

- November - February plantings (and later) of dahlia must consider a fungicide at planting or within 5 to 7 days.

4. Combating powdery mildew and botrytis.

- Powdery mildew and botrytis need to be considered even when recommended temperatures and conditions are followed.
- Changes in the amount of light or swings in daytime temperatures can contribute to conditions causing fungal and mildew problems ( humidity, temperature and light levels ).
- Use a fungicide spray with an insecticide spray to help with prevention.

5. Feed moderately $=100 \mathrm{ppm}$ of $20-10-20,75 \mathrm{ppm}$ of $15-0-15,25 \mathrm{ppm}$ mag. ( 200 ppm )
6. Height control: most growers are using bonzi as a spray or drench. Every series is different - see color sell sheets for detail.
7. Summary: good growing means evaluating plants \& conditions daily.

## Varietv: Name - color - flowersize - height

1. Art Deco - bi-color orange and ruby red $-4^{1} / 2^{\prime \prime}-12^{\prime \prime}$
2. Art Fair - pure white $-4^{1} / 2^{\prime \prime}-12^{\prime \prime}$
3. Art Nouveau - violet purple and lilac pink $-4^{1} / 2^{\prime \prime}-10^{\prime \prime}$ to 12 "
4. Bellini - bright pink / white $-4^{3} / 4^{\prime \prime}-10^{\prime \prime}$ to $122^{\prime \prime}$
5. Cezanne - bright yellow $-3^{1} / 2^{\prime \prime}-10^{\prime \prime}$
6. Cobra - yellow / orange edged in red $-5^{\prime \prime}-16^{\prime \prime}$
7. La Tour - Soft lavender / bronze foliage $-4^{1} / 2^{\prime \prime}-12^{\prime \prime}$
8. Leonardo - blended salmon / yellow $-4^{1} / 2^{\prime \prime}-10^{\prime \prime}$ to $12^{\prime \prime}$
9. Matisse - blended golden / orange $-3^{1} / 2^{\prime \prime}-8^{\prime \prime}$
10. Matisse purple - blended purple $-31 / 2^{\prime \prime}-8^{\prime \prime}$
11. Monet - soft lavender / pink $-4 "-10 "$
12. Pablo - bi-color apricot with scarlet petal tips $-4^{3} / 4^{\prime \prime}-10^{\prime \prime}$ to $12^{\prime \prime}$
13. Rembrandt - magenta with cream petal tips $-3^{1} / 2^{\prime \prime}-12^{\prime \prime}$
14. Pinto - bright yellow $-4^{\prime \prime}-12^{\prime \prime}$
15. Renoir - fuchsia purple $-4^{1} / 2^{\prime \prime}-10^{\prime \prime}$ to $12^{\prime \prime}$
16. Rivera - bright red $-4^{1} / 2^{\prime \prime}-12^{\prime \prime}$
17. Rubens - bi-color pink $-3^{1} / 2^{\prime \prime}-8^{\prime \prime}$
18. Salvador - bi-color pink carmine and cream $-4^{3} / 4^{\prime \prime}-12^{\prime \prime}$
19. Serenade - lemon yellow $-4^{1} / 2^{\prime \prime}-12^{\prime \prime}$
20. Singer - deep red $-3^{1} / 4^{\prime \prime}-10^{\prime \prime}$
21. Sisley - light purple with magenta center $-3^{1} / 2^{\prime \prime}-8^{\prime \prime}$
22. Valentin - bright orange $-4 "-12$ "
23. Vermeer - golden yellow $-3^{1} / 2^{\prime \prime}-10^{\prime \prime}$ to $12^{\prime \prime}$
24. Vincent - burnt orange $-4 "-10^{\prime \prime}$
