# **GrowerFacts**

## Rudbeckia Goldsturm

(Rudbeckia fulgida var. sullivantii)

Plug crop time: 6 to 8 weeks Transplant to finish: 20 to 24 weeks Perennials Culture (revised 10/31/23)

- Superior seed quality compared to other Goldsturm strains.
- · Premium, late Summer-flowering perennial is considered "best in class" for landscapes.
- · Upright plants produce a large, single, scentless bloom on every stem, over tight, dark green foliage.
- · Goldsturm needs early sowing and optimal natural growing conditions to provide 100% first-year flowering.

## **General Information**

| Exposure | Bloom Season                | Height                  | Spread                  | Spacing                 |
|----------|-----------------------------|-------------------------|-------------------------|-------------------------|
| Sun      | Summer, Late Summer, Autumn | 24-28 in.<br>(61-71 cm) | 14-18 in.<br>(36-46 cm) | 14-18 in.<br>(36-46 cm) |

## Germination

| Seed Form | Recommended<br>Plug Size | Seeds/Cell | Plug Crop Weeks | Days from 50% to maximum germination | Initial Media<br>pH/EC (1:2) | Cover Seed |
|-----------|--------------------------|------------|-----------------|--------------------------------------|------------------------------|------------|
| PRM       | 288<br>72*               | 2<br>3-4   | 6-8<br>14       | 3-5                                  | 5.8-6.5 pH<br>0.75 mmhos/cm  | Yes        |

<sup>\*</sup> Recommend plug size for forcing.

## **Plug Production**

|             | Stage 1              | Stage 2                                 | Stage 3                                 | Stage 4                                 |
|-------------|----------------------|---|---|---|
| Moisture    | Level 4              | Level 3-4                               | Level 2-3                               | Level 2                                 |
| Temperature | 72-77°F<br>(22-25°C) | 68-74°F<br>(20-23°C)                    | 65-68°F<br>(18-20°C)                    | 60-65°F<br>(16-18°C)                    |
| Light       | Optional             | 2,000-2,500 f.c.<br>(21,500-26,900 Lux) | 2,000-2,500 f.c.<br>(21,500-26,900 Lux) | 4,000-5,000 f.c.<br>(43,100-53,800 Lux) |
| Fertiliser  |                      | 100 to 175 ppm N<br>(0.7 to 1.2 EC)     | 100 to 175 ppm N<br>(0.7 to 1.2 EC)     | 100 to 175 ppm N<br>(0.7 to 1.2 EC)     |

#### Vernalisation

No

#### **Propagation Key Tips**

Annual program for late Summer flowering: provide 10-hour short days. Bulk from 2 true leaves (approximately 4 weeks after sowing) until 10 true leaves for more uniform flowering. Step up 288 plugs into 72 or 50 cell, maintaining 10-hour short days. For forcing info: See Perennials Forcing Guide.

## **Growing on to Finish**

| Growing on<br>Temperature | Target Media<br>pH/EC (1:2) | Fertiliser       | Daylength          |
|---------------------------|-----------------------------|------------------|--------------------|
| (day) 65-68°F (18-20°C)   | 5.8-6.5 pH                  | 175 to 225 ppm N | Short Day-Long Day |
| (night) 60-65°F (16-18°C) | 1.2-1.5 mmhos/cm            | (1.2 to 1.5 EC)  |                    |

#### **Daylength Notation**

Best plant structure comes under Short Day conditions (12 hours or less) until 10-leaf stage, then Long Day (15 hours or longer). For forcing info: see Perennials Forcing Guide.

## **Crop Scheduling**

| Crop Type  | Container Size       | Plugs/Pot | Crop Time     | Season | PGR                           |
|------------|----------------------|-----------|---------------|--------|-------------------------------|
| Annual     | 4"/4.5"/Quart/10 cm  | 1 (ppp)   | 16-23 (weeks) | Summer | paclobutrazol 20-30 ppm Spray |
| Annual     | 4"/4.5"/Quart/10 cm  | 1 (ppp)   | 16-23 (weeks) | Summer | uniconazole 5-10 ppm Spray    |
| Annual     | 5"/6"/1 Gallon/15 cm | 2-3 (ppp) | 16-24 (weeks) | Summer | paclobutrazol 20-30 ppm Spray |
| Annual     | 5"/6"/1 Gallon/15 cm | 2-3 (ppp) | 16-24 (weeks) | Summer | uniconazole 5-10 ppm Spray    |
| Overwinter | 5"/6"/1 Gallon/15 cm | 1 (ppp)   | 32-34 (weeks) | Summer | uniconazole 5-10 ppm Spray    |
| Overwinter | 8"/2 Gallon/20 cm    | 3-5 (ppp) | 32-34 (weeks) | Summer | paclobutrazol 20-30 ppm Spray |

#### **Fertiliser Notation**

Use 100 to 125 ppm liquid N balanced fertilizer with every irrigation, or 200 to 300 ppm N balanced fertilizer as needed.

#### **Common Problems**

Insects: Aphids, Whiteflies Disease: Septoria Leaf Spot is the primary disease observed on Rudbeckia. Other pathogens that may be observed include Botrytis, Cercospora, Downy Mildew, Powdery Mildew, Phytopthora, Pseudomonas, Pythium and Rhizoctonia

## **Bulking Strategy**

See Quick Study Forcing: use short days (less than 12 hours) from 2 to 10 true leaves (approximately 12 to 14 weeks) to plan for week 35 sales. For forcing info: See Perennials Forcing Guide.

#### **Finishing Key Tips**

Relatively high feeder. Use long day (15 hours or longer) or night interruption to finish early pottings or use vernalised plugs. Prevent Mg and Fe deficiency. Monitor for Botrytis and downy mildew. High light and good ventilation are beneficial. PGR advice as follows: best effect with Sumagic 2x 15 ppm spray; another PGR option is a tank mix of B-Nine 2,500 ppm/CCC 750 ppm 3x spray. Possible foliage issues can occur on new growth leaves (puckering, cup up, tip marginal burning) during flower induction period because of more difficult mineral transport during this developmental stage. There is no good fertilisation correction possible, only maintain as low an RH as possible with optimal ventilation to have optimal plant transport of elements. The foliage issue will mostly have disappeared at flowering sales stage. For Autumn forcing info: See Perennials Forcing Guide.

NOTE: Growers should use the information presented here as guidelines only. PanAmerican Seed recommends that growers conduct a trial of products under their own conditions. Crop times will vary depending on the climate, location, time of year, and greenhouse environmental conditions. It is the responsibility of the grower to confirm the treatment is available in their region as well as read and follow all the current label directions relating to the products. Nothing herein shall be deemed a warranty or guaranty by PanAmerican Seed of any products listed herein. PanAmerican Seed's terms and conditions of sale shall apply to all products listed herein.

# **Variety Pictures**









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