

## Verbena Quartz Series

(*Verbena x hybrida*)

Annuals Culture (revised 03/16/17)

**Plug crop time:** 5 weeks

**Transplant to finish:** Spring 7 to 9 weeks, Summer 6 to 7 weeks

- Approximately 2 weeks later to flower than Quartz XP varieties.

### General Information

Exposure	Bloom Season	Height	Spread	Spacing
Sun	Spring, Late Spring, Summer, Late Summer, Autumn	10-12 in. (25-30 cm)	12-14 in. (30-36 cm)	10-14 in. (25-36 cm)

### Germination

Seed Form	Recommended Plug Size	Seeds/Cell	Plug Crop Weeks	Days to Germinate	Initial Media pH/EC	Cover Seed
PRM, RAW	288	1	5-6	4-6	5.8-6.2 pH 0.5-0.7 mmhos/cm	Yes

### Plug Production

	Stage 1	Stage 2	Stage 3	Stage 4
<b>Moisture</b>	Level 3	Level 4	Level 3-4	Level 3-4
<b>Temperature</b>	72-75°F (22-24°C)	70-72°F (21-22°C)	68-70°F (20-21°C)	68-70°F (20-21°C)
<b>Light</b>	Optional	1,500-2,500 f.c. (16,100-26,900 Lux)	1,500-2,500 f.c. (16,100-26,900 Lux)	2,500-5,000 f.c. (26,900-53,800 Lux)
<b>Fertilizer</b>	Less than 100 ppm N - Less than 0.7 EC	Less than 100 ppm N - Less than 0.7 EC	100 to 175 ppm N - 0.7 to 1.2 EC	100 to 175 ppm N - 0.7 to 1.2 EC

### Propagation Key Tips

Avoid excessive moisture in plug media during germination Stage 1. If needed, 1 to 3 applications of B-Nine/Alar (daminozide) at 1,250 ppm (1.5 g/l 85% formulation or 2 g/l 64% formulation) spray has been tested and shown to be effective. In warmer climates, it is also possible to apply A-rest (ancymidol) at 10 ppm (37.6 ml/l, 0.0264% formulation) as a foliar spray.

### Growing on to Finish

Growing on Temperature	Target Media pH/EC	Fertilizer	Daylength
<b>(day)</b> 65-70°F (18-21°C) <b>(night)</b> 60°F (16°C)	5.5-6.2 pH 1.5-2.0 mmhos/cm	175 to 225 ppm N - 1.2 to 1.5 EC	Facultative Long Day

### Crop Scheduling

Container Size	Plugs/Pot	Crop Time	Season	PGR
Cell Pack	1 (ppp)	6-8 (weeks)	Spring	-
Cell Pack	1 (ppp)	5-7 (weeks)	Summer	-

### Fertilizer Notation

Use a predominantly nitrate-based fertilizer with low phosphorus. If needed, a balanced ammonium and nitrate-based fertilizer may be used as needed to encourage growth and balance the media pH.

## Chemical Sensitivity

## Common Problems

Insects: Mites, Thrips Diseases: Powdery Mildew

## Finishing Key Tips

Growth Regulators: For warm climates B-Nine/Alar (daminozide) at 3,500 ppm applied as foliar spray or 2 applications of A-Rest (ancymidol) at 20 ppm as a foliar spray. For Northern European conditions 2 to 3 applications plus 3,200 B-Nine/Alar at 3,200 ppm plus Cycocel (chormequat) at 375 ppm is recommended.

**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 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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Blue

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