



# HEARTBREAKERS™ VALLERY RED F1

tomato, pot

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1700 West First St.  
Warden, WA 98857



Heartbreakers™ Vallery F1 has a trailing growth habit, which makes it ideal for large containers and hanging baskets. This variety is suitable for both professional growers under high light intensity and home gardeners. The juicy fruit have a tender skin and the perfect sweet/sour balance with a brix of about 9%.

## HIGHLIGHTS

- 8-10" pot size 9" optimal
- Crop time from young plant until red fruit is 8-9 weeks
- Regrowth after first harvest

## CULTURAL SHEET

### Properties

Variety number	410-020
Variety name	Vallery Red F1
Series name	Heartbreakers™
Species	Lycopersicum esculentum
Common name	(Pot/Determinate) Tomato
Family	Solanum
Type	Annual
Seed weight	1.8-25 gram/ 1000 seeds depending on seed lot and variety
Plant Diameter	± 20"
Plant height	± 8"
Days to maturity from transplant	70-85 days
Pruning/trimming	No
Use	<ul style="list-style-type: none"> <li>• Compact snack tomato for outdoor use in patio and balcony pots</li> <li>• Compact snack tomato for indoor gardening, greenhouses, vertical farming, and windowsill.</li> </ul>





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## YOUNG PLANT CULTURE

### number of seeds/plug

1 for plug size 0.6-1.2 inch

### germination days

1-2 days\* (biological disinfected seeds can take 2 days more)

### germination temp.

64°-70°F (18°-21°C) Covered and high humidity, no light needed

### growing days

14-21 days

### growing temp.

61°-70°F (16°-21°C)

### minimum growing temp.

61°F (16°C) This lengthens the growing days period

### maximum growing temp.

95°F (35°C) This shortens the growing days period, encourage stretching internodes

### optimal day/night temp.

day: 70°F (21°C)

night: 64°F (18°C)

### soil for sowing

Sowing soil with good drainage, EC 1.5 PH 5.8-6.5

### sowing covering

Vermiculite / soil with open structure /app. 2-3 mm thick

### fertilization (f) in the plug

2.5 EC with each watering, NPK 15-10-15 and micro elements

### ready to transplant

Full rooted plug with short internodes. Small young flower could be visible.

## CULTIVATION TIPS DURING YOUNG PLANT GROWING

- Reduce the humidity soon after germination to 70%. This prevents stretching of the hypocotyl. For pot tomatoes stretching is not appreciated.
- The 1-2 week period after cotyledon expansion is the temperature sensitive period, defining when the first bunch shows. Low night temperature exposure (50-59°F) of seedlings, in contrast to day temperatures at 64°-70°F/18°-21°C during this period promotes the initiation and number of flowers (bunches) on the plant, reduces the internodes length and the number of leaves preceding the first flower bunch.

- Long days (16 hrs) under relative low light densities increase the dry weight production with 100% compared to short day 8 hrs after 6 weeks from sowing.

## FINISH PLANT CULTURE

### potting soil

Standard soil with good drainage and water storage capabilities EC 2.5 PH 5.8-6.5

### pot size

6.5-8.5" optimal 8" container

10-14" hanging basket

### plugs per pot

1 plug for pots.

3 plants in 1 basket

### indoor

Final distance indoor depends on pot size

12" x 12" (10 plts/m<sup>2</sup>) for pots

Final distance indoor 16" x 16" (5-6 plts/m<sup>2</sup>)

for baskets

### spacing indoor

Space the plants when the leaves are reaching each other

### outdoor in open soil

Planting distance 10" x 10"

### planting soil outdoor

Standard soil with good drainage and water storage capabilities EC 1.5 PH 5.8-6.5

### minimum growing temp.

61°F (18°C) This lengthens the growing days period

### ideal growing temp.

70°-77°F (21°C-25°C)

### optimal day/night temp.

day: 77°F (23°C)

night: 64°F (18°C)

### frost

Plants cannot stand frost

### watering

- Regularly for continues growth, keep the soil moist
- Watering with minimal. 2.5 EC keeps tomatoes healthy

### crop time to saleable product

10-12 weeks after planting, when the first bunch starts to show color

## CULTIVATION TIPS DURING FINISH PLANT GROWING

- Pinching above the 3rd leaf will create a more compact branching plant. It will delay ripen fruits for approx. 10 days.
- High temperatures (81°F 27°C average D/N) induce pollen infertility/no fruit set. Within the 70-81°F (21-27°C) range a diurnal fluctuation of at least 5-6°C promotes good pollen fertility.
- Night temperatures of between 61-68°F (16-20°C) are ideal. Temperatures below 55°F (13°C) severely affect the pollination of most cultivars.
- Insects, especially bees and bumble bees, support fruit set on tomatoes.
- Tomato plants have a high fertilization need. When the EC is too low, the leaves can turn yellow when the fruits are coloring. This also reduces the taste of the fruit.
- When the flowers show, increase the EC in to 3-4, to keep the fertilization in the pot high enough. (EC in the pot can go up to 7-9)
- Tomato plants/leaves can be made sturdier by spraying (MgSO<sub>4</sub> -bitter salt and Dipotassium-sulphite (K<sub>2</sub>SO<sub>3</sub>)) solutions on the plants (possible combined with other chemicals which need to be used). This has a positive effect on the leaf size and color.
- Clay in the soil will stabilize fertilization variation and reduce stretching. 2-5% is advisable, can be increased to 10%.
- Potassium-phosphate (MKPO<sub>3</sub>) in a concentration of 0.1% improves the quality of tomato plants. This is a good method against phytophthora. For all tomatoes this can lead to a significant reduction of failures.