

### Production schedule

	Week	Week	Week	Week	Week	Week	Week
Sowing	5	8	13	18	22	27	32
Potting	7	10	15	20	24	29	34
Spacing	10	13	18	23	27	32	37
Sale	18	21	25	29	33	39	44
Weeks in total	13	13	12	11	11	12	12

Production time depends on the light and temperature conditions under which the plants are produced.

Weeks mentioned above are for 'Red Velvet' produced in northern Europe and can be used as guideline for most varieties. In warmer and more sunny areas, time of production will usually be approx. one week faster.

### Plug Size

We recommend using plugs grown in a 264/288 cell tray or similar.

Plugs **may not be dry** (below level 3) when being potted.

### Sanitation

Make sure to start out as clean as possible, disinfect benches and cultivation floors before potting.



### Growing media

Most growing medias can be used, but as plants need to be grown dry, good drainage is important. Substrates mixed with Coco fiber works well.

Important to use substrate with a starter fertilizer.

#### Pot sizes

Compact varieties (Red Velvet) 4.5-6" (12-15 cm)

Siam 5-8" (13-19 cm)

Main pot size 6" (14 cm)



### Potting

To ensure the best growth habit, plant the young plants **as deeply as possible**, preferably with the cotyledons right at the level of the media.



### Spacing

5" (13 cm) 20-22 pl./10ft<sup>2</sup>/m<sup>2</sup>  
6" (14 cm) 16-18 pl./10ft<sup>2</sup>/m<sup>2</sup>

Plants should be spaced 3-4 weeks after potting

### Growing phases and irrigation

		ML*	EC level in irrigation water (ebb/flow)
Potting to spacing	Start out moderate moist to get roots established, when roots become visible, start growing dry.	4-2	2.5-3.0
Spacing to flowering	<b>Keep the plants very dry at this stage.</b>	3-1	2.5-3.0
Flowering to sales	Risk of stretching is less when plants become generative, keep moderate moist. Too dry in this stage could result in poor fruit set.	4-2	1.5-2.0

\*Moisture level see PAS seed product information guide.

### Nutrition

Tomatoes need high feed to develop optimal so irrigation with fertilizer is needed, preferable with every irrigation.

Fertilizer composition recommended for Kitchen Minis products.

N	NH <sub>4</sub>	P	K	Mg	Ca
100	<10%	20	130	16	85

+ micro elements

It is highly recommended to check EC (and pH) level in the pots weekly. Recording the results is a good way to ensure crop stay on track. Use of soil analyzes, for example 2 weeks after spacing, will not only show pH and EC level, but also balance between elements.

EC/pH level in the pot  
EC: 1 – 1.5 (1:2 ratio)  
pH: 5.3 – 5.8

### PGR

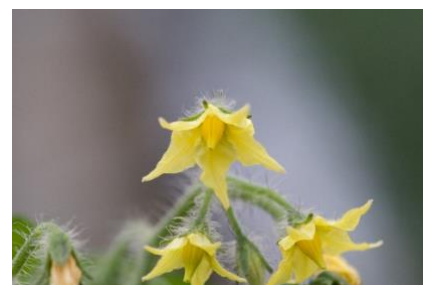
No PGR should be used at any point during production

### Fruit setting

If plants are grown dry as recommended, it will have a positive impact on fruit set as it promotes better flowering.

Use of bumble bees ensure the best possible setting but is not a must.

Average temp. of min. 66°F.  
(19°C.) for optimal fruit set.



Perfect flowers, ready to set fruit

### Watering tips

Correct watering is important to grow tomatoes successfully. Best results are achieved if irrigation is combined with light watering from the top with sprinklers or hose/nozzle. This will cool down the plants, soil remain dry and stretching is avoided. Even after being very dry, plants recover easily. Complete irrigation is still needed to ensure supply of fertilizer.

### Climate

#### Light level

Tomatoes tolerates high light intensity.

#### Temperature

Tomatoes tolerate high temp. Too low temp. will delay production time and might cause problems setting fruit. Recommended growing temp. is 65-80°F. (18-27°C.), best result if temp. is kept between 68-77°F. (20-25°C.) To control temp. moderate shade might be needed under high light conditions (+800W/m<sup>2</sup>– 8000Fc.)

#### Humidity

Humidity above 80 % could give botrytis in the flowers and should be avoided.

#### CO<sub>2</sub>

Tomatoes can be grown without additional CO<sub>2</sub>.

#### Artificial Light

When grown under low light conditions (DLI <15 mol/m<sup>2</sup>/day) use of artificial light is highly recommended.

### Split bamboo/Clips

Due to the weight of the fruits and to support plants during transport, we recommend using split bamboo and clips

Keep the plants dry from spacing to flowering.



Tomatoes need high light level  
Temp: 68-77°F. (20-25°C.)



## Growing guide - Tomatoes

### Pest and diseases

In general tomatoes are less sensitive for fungal diseases. We recommend preventive treatments with *Trichoderma harizianum* spp, drench ASAP after potting.

Powdery mildew can be a problem. Spraying preventively with foliage feed with Mg can reduce the problem.

### Pest

Most common pest are Thrips and Aphids and we recommend use of biological control which works well in tomatoes.

Best results are obtained if biological control is used preventively. Contact your local supplier of biological control for more info.

Biological control works well in all Kitchen Minis products

### Virus and bacteria

Tomatoes are sensitive to bacteria which can be spread with irrigation water. Use of silver-stabilized hydrogen peroxide in the water will reduce the problem.

Different types of viruses can affect tomatoes. Thrips are main vector for viruses and need to be controlled carefully.

### Sticky traps

An important part to prevent pests is active use of sticky roller traps. Change traps as needed and make sure they are placed max. 10"/25 cm above the crop.

Good to keep in mind;  
If you catch 1 thrip you avoid  
125-150 new eggs too.



### Pest scouting

It is recommended to monitor for pests on regular basis (ideally weekly) using separate registration sticky cards, 1 pcs/2500 ft<sup>2</sup>/250m<sup>2</sup>.

Registration of weekly counting will give a good overview of pest pressure and is the best way to forecast which and how many beneficials to use.



Sticky trap for monitoring



'Red Velvet' (12 weeks from sowing) ready to be shipped

### More information

We hope you find this guideline useful. If there is any question related to growing Kitchen Minis prior and during production, please reach out to [kmtech@panamseed.com](mailto:kmtech@panamseed.com)

Kind regards

The PAS KM-team