Growing guide - Peppers



Production schedule

	Week						
Sowing	5	10	15	20	25	30	35
Potting	8	13	18	23	28	33	38
Spacing	12	17	22	26	31	37	42
Sale	23	27	32	36	41	47	1
Weeks in total	18	17	17	16	16	17	18

Production time depends on the light and temperature conditions under which plants are produced. Weeks mentioned above are for 'Hot Fajita' produced in northern Europe and can be used as guideline for most varieties. In warmer regions with high light levels, production time will usually be 1-2 weeks faster.

Plug Size

We recommend using plugs grown in a 264/288 cell tray or similar. Plugs **must 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 media can be used, but as plants need to be grown dry, good drainage is important. Substrates mixed with Coco fiber works well. It is important to use substrates with starter fertilizer.

Pot sizes: 5-8" (13-19 cm) Main pot size 6" (EU 14 cm)

Growing guide - Peppers





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.



2 weeks after potting



Plants should be spaced 3-4 weeks after potting

Spacing: 5" (13 cm) 20-22 pl./10 ft^2/m^2 6" (14 cm) 16-18 pl./10 ft^2/m^2

Disclaimer: All information in this guideline is to inspire growers to grow the best possible product and should be used as guideline only. PanAmerican Seed cannot be held responsible for any kind of failures in production. Visit www.panamseed.com for current Terms & Condition of sale.

Growing guide - Peppers



Growing phases and irrigation

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

^{*}For moisture levels, see the PAS seed product information guide.

Nutrition

Peppers need high feed for optimal development, so irrigation with fertilizer is needed, preferably with every irrigation.

The fertilizer composition recommended for Kitchen Minis products is:

N	NH ₄	Р	K	Mg	Ca
100	<10%	20	130	16	85

⁺ micro elements

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

PGR

Use of Sumagic (uniconazole) is effective on peppers and can be used at an early stage (before spacing). However, we recommend NOT using any PGR during production of edible products.

Fruit setting

Growing the plants dry as recommended will have a positive impact on fruit set ,as it promotes better flowering.

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

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

pH: 5.3 - 5.8

Use an average temp. of min. 66°F (19°C) for optimal fruit set.

Growing guide - Peppers



Watering tips

Correct watering is essential to grow Peppers 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 remains dry and stretching is avoided. Even after being very dry, plants recover easily.

Complete irrigation is still needed to ensure supply of fertilizer.

Keep the plants very dry from spacing to flowering.



Light sprinkle with a hose/nozzle



How dry? Weight of this pot (5"/13 cm) is as low as 10 oz. (300 g) before irrigation.



Use of sprinklers for a few minutes works very well

Important: If EC above 1.5 is used for watering from above, make sure to rinse with clean water afterwards to avoid leaf damage.

Growing guide - Peppers



Climate

Light level

Peppers tolerate high light intensity.

Temperature

Peppers are "heat-lovers" and tolerate high temperatures. Too low temperatures will delay production time and cause problems setting fruit. Recommended growing temperature is 65-80°F (18-27°C). best result if temp. is kept between 68-77°F. (20-25°C.)

To control temperature, moderate shade might be needed during high light conditions ($+800W/m^2 - 8000$ Fc.)

Humidity

Humidity above 80% should be avoided.

CO_2

Peppers can be grown without additional CO₂.

Artificial Light

When grown under low light conditions (DLI <15 $mol/m^2/day$), 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.

Pest and diseases

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

Pest

The most common pests are Thrips and Aphids, and we recommend use of biological control which works well in peppers.

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

Virus and bacteria

Peppers are sensitive to bacteria that 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 peppers.

Thrips are the main vector for viruses and need to be controlled carefully.

Peppers need high light levels.

Temp: 68-77°F (20-25°C)



Biological control works well in all Kitchen Minis products.

Growing guide - Peppers



Sticky traps

An important part of preventing 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.

Pest scouting

It is recommended to monitor for pests on a regular basis (ideally weekly) using separate registration sticky cards, 1 pcs/2500 ft 2 /250 m2. 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

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

Kind regards
The PAS Kitchen Minis team