

### Production schedule

	Week						
Sowing	10	14	18	21	24	28	33
Potting	11	15	19	22	25	29	34
Spacing	13	16	20	23	26	30	36
Sale	16	19	23	26	29	33	40
Weeks in total	6	5	5	5	5	5	7

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

Weeks mentioned above are for 'Quick Snack' 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 week faster.

### Plug Size

We recommend using plugs grown in a 104/180 cell tray or similar.

Seeds can also be sown directly in the pots.

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

It makes no difference on final product if plants are sown directly or if plugs have been used.



Young plant 1 week old, ready for transplant

### 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. Substrates mixed with Coco fiber works well. Important to use substrate with fertilizer.

Use media with pH below 6 and min EC 1.0 mS/cm.

Pot sizes  
6-8" (15-19 cm)  
Main pot size 6" (EU 15 cm)



Transplanted 1 plant/pot



If possible, trellis and spacing is added within 2 weeks after potting

### Potting

To ensure the best growth habit, do not plant the young plants too deep. Top of plug should be at the level of media in the pot. Only 1 plant/pot.

### Spacing

6" (15 cm) 10-12 pl./10 ft<sup>2</sup>/m<sup>2</sup>  
8" (19 cm) 6-7 pl./10 ft<sup>2</sup>/m<sup>2</sup>



### Growing phases and irrigation

		ML*	EC level in irrigation water (ebb/flow)
Potting to spacing	Keep moderately moist throughout the entire production. Don't let plants dry out, as it will cause damage on the leaves	4-2	2.5-3.0

\*For moisture levels, see PAS seed product information guide.

### Nutrition

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

The fertilizer composition (ppm) recommended for Kitchen Minis products is:

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

EC/pH level in the pot:  
EC: 2.5 (1:2 ratio)  
pH: 5.6 – 5.8

Cucumbers like high light levels:  
> 600 umol/m<sup>2</sup>/s

### PGR

We recommend NOT to use any PGR during production of edible products.

### Fruit setting

This variety is parthenocarpic, which means that the plants will set fruit without any pollination.

Average temp. of min. 68°F (20°C) will produce optimal fruit set. Temp: 68-77°F (20-25°C)

### Climate

#### Light level

Cucumbers tolerate high light intensity.

#### Temperature

Cucumbers are “heat-lovers” and tolerate high temperatures. Too low temperature will delay production time and cause problems setting fruit.

Recommended growing temperature is 68-80°F (20-27°C). Get the best results if temperature is kept between 68-77°F (20-25°C).

To control temperature, moderate shade might be needed during high light conditions ( $+800\text{W}/\text{m}^2 - 1600 \mu\text{mol}\cdot\text{m}^{-2}\cdot\text{s}^{-1}$  or 8000 Fc).

#### Humidity

Humidity above 80 % should be avoided.

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

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

#### Artificial Light

When grown under low light conditions ( $\text{DLI} < 15 \text{ mol}\cdot\text{m}^{-2}\cdot\text{d}^{-1}$ ), use of artificial light is highly recommended.

### Trellis

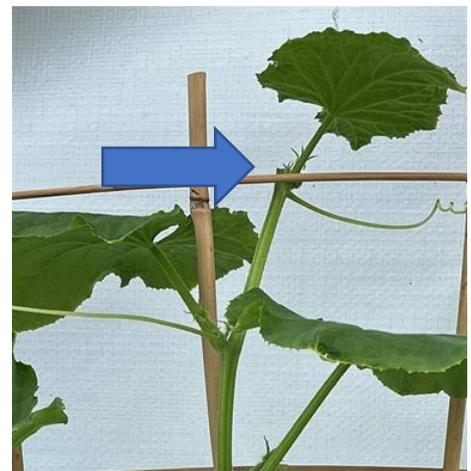
Due to the weight of the fruits and to support plants during growth and transport, we recommend using a trellis and clips.

### Pinching

We recommend pinching the main branch just before it reached the top of the trellis to enhance branching

### Fruits

The fruits are most delicious when they are harvested between 2-3" (6-8 cm) long, like a finger.





### Pest and diseases

We recommend use of beneficials as well as *Trichoderma harizianum spp* (for example T22) drench ASAP after potting.

#### Pest

Most common pests are Thrips and Aphids, and we recommend use of biological control which works well in cucumbers. Best results are obtained if biological control is used preventively. Contact your local supplier of biological control for more info.

#### Fungus and virus

Cucumbers are sensitive to Pythium and phytophthora which can be spread with irrigation water.

Treatment/disinfection of the water will reduce the problem.

Different types of viruses can affect cucumbers.

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

#### 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.

Biological control works well  
in all Kitchen Minis products

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



Sticky trap for monitoring

### **Pest scouting**

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

### **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 Kitchen Minis team