

Quarto RZ

Growing Tips



Introduction

Baby (or cocktail) cucumbers are a crunchy and tasty small seedless type of cucumber with a higher level of dry matter, sugars and acids than in regular cucumbers. The main variety grown commercially is Quarto RZ.

Planting Season

This variety is expected to perform well under Australian conditions year round. Recommended seasons for planting baby cucumbers are from spring, through summer into autumn; the plants set well under hot conditions, as long as heat is not excessive.

Planting Densities

Recommended plant densities in Holland for standard growing systems are 2 plants/m² to 2.5 plants/m², with a density of 3 plants/m² recommended for high wire cropping. For Australia winter densities around 2.5 plants/m² are appropriate. Based on conditions and the type of greenhouse, densities can be increased during the summer period to better utilise available light.

Plant Development

Quarto RZ sets well and has a strongly multi-fruited habit. The plants have a medium level of vigour with an open plant type, small leaves and short internodes. It is important to leave no fruit on the first five nodes, after which one fruit per node can be kept until the crop reaches a metre in height. From this point onwards every fruit can be kept. The production will be about 1-2 fruits per node on the stem, and two fruit per node on laterals.

Baby cucumbers have to be grown differently from standard cucumbers; the main stem is kept and the head is put over the wire with all side shoots allowed to grow out. Retain all the laterals. The head of the main stem is taken out after the stem is about 50cm over the wire.

It is preferable to grow baby cucumbers on the high wire system like tomatoes. In this way the crop is easier to work and the grower is able to steer the crop better.

Fruit

The growing period for a crop of baby cucumbers is about ten weeks, with about eight harvesting weeks. Only under ideal conditions a crop can be kept for a longer time.

Baby cucumbers will yield approximately 4kg per plant, although there will be some variation, typically ranging from 3-5kg per plant.

Fruit are slightly ribbed, 8-10cm long, 2cm in diameter and have an attractive shiny colour. Fruit are picked in a very early stage to ensure that they have the right length/thickness ratio. When fruit weigh around 40 grams, the ideal fruit size has been achieved. Higher frequency of picking is required; in the main season picking has to be done once a day. When picking 40 gram fruit, it might

be needed to pick twice a day during peak production in summer time. As a result of labour constraints, often fruit weighing 50 to 60 grams is harvested; this is not a problem.

Fruit should be film wrapped or in some other form of packaging in order to maximise shelf life.

Resistances

Quarto RZ has a high level of partial resistance against powdery mildew and is resistant against CMV and CVYV.

Cultural Tips

Baby cucumbers can be grown in much the similar way to standard varieties; they have similar temperature, nutrient and irrigation requirements.

Temperature

§ First two days after planting 20-20 °C (Day/Night) to stimulate rooting into the slab or bag.

§ Later the temperature can be increased to about 22 °C day and 21-°C night (almost until production).

§ Venting in the first three weeks should be done close to the heating line; venting on humidity only leads to excessively high day temperatures and a vegetative plant habit.

§ As soon as the first fruit starts to develop, the night temperature should be gradually brought back to 18°C over a period of 7 days.

§ When stem fruit production is high, try to keep the day temperature at a maximum of 25 °C. When this is not possible (because of outside weather conditions) a pre-night of 17 °C can be used.

Nutrient Solution

The start recipe is only to be used for the first two weeks after planting.

Recipe, Per 1000L of Stock Solution		Start Recipe	Standard Recipe
	Stock Solution A	Kg	Kg
Calcium nitrate	Ca(NO ₃) ₂	100	95
Ammonium nitrate	NH ₄ NO ₃	7	9
Potassium Nitrate	KNO ₃	20	20
EDTA 13%	EDTA Fe	0.65	0.65
	Stock Solution B	Kg	Kg
Potassium nitrate	KNO ₃	45	48
Monopotassium Phosphate	KH ₂ PO ₄	18	18
Magnesium sulphate	MgSO ₄ 7.H ₂ O	40	35
	Add to Stock Solution B	Gram	Gram
Manganese sulphate	MnSO ₄ H ₂ O	170	170
Borax	Na ₂ B ₄ O ₇ 10.H ₂ O	240	240
Copper sulphate	CuSO ₄ 5.H ₂ O	20	20
Zinc sulphate	ZnSO ₄ 7.H ₂ O	145	145
Sodium molybdate	NaMoO ₄ 2.H ₂ O	13	13

Ec

§ Pre water the bags 2 or 3 days before planting with the first nutrient solution.

§ Strive for a Ec of 2.5 to 3.0 (note Ec 1 = CF 10) in the slab/bag. It is important to check the Ec every two days, especially in the beginning.

§ An example of a good Ec regime might be as below:

- Directly after planting apply nutrient solution with a Ec of 2.2-2.5 to stimulate rapid rooting into the bag / slab.
- After rooting, until the setting of the first stem fruit set apply nutrient solution with a Ec of between 2.5 and 3.0.
- After the first stem fruit has set, and for the remainder of the stem fruit production phase the nutrient should have a Ec of 2.3-2.7.
- To avoid a decrease in production during the switch over from the stem to the laterals increase the Ec applied for a few days. This is not required when the main stem is kept along with a lateral.
- If there is a high risk for burned heads, e.g. with sunny hot weather, decrease the Ec to 2.0 or even 1.8.

Irrigation

§ The first two days after planting it is important to give sufficient water to stimulate rapid rooting into the bag / slab.

§ During the following days restricting water will actually encourage the root development. This is only possible on Rockwool, coco peat and sawdust, which retains water (still check moisture content every day though) and can be continued for around one week after planting. Under extreme conditions a 3 day old plant is already capable of taking up one litre per day.

§ After three weeks it is very important that the plants are given sufficient water. For every 100 joules of light it is necessary to give about 300 cc water per m² per day. Insufficient water in the production stage leads to abortion of young fruit. This is especially the case in the midday period, and it is important to ensure sufficient run-off (achieved by a relatively low CF in the bag / slab).

If you have queries please direct these to:

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