

the power
of **balance**

Toploader (E 31.2085)



ENZA ZADEN



Enza Zaden is ready for a new generation of cucumber varieties. Strong and steadily-growing crops, non-aborting and with a very high production rate. The first progeny from this nest is **Toploader (E 31.2085)**, suitable for supplementary lighting and the summer crops. The variety does well in both high-wire and traditional cultivation. The cucumbers are of a very high quality. The fruit weight is distributed in the lower end of the 400g range. The shape is straight and with even width all the way to the end. The colour and the shelf life are also very good.



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the power of Enza Zaden



Toploader practical experiences

Toploader was tested extensively last year in both high-wire and traditional crops. In both cases, the variety was ranked very highly. The key word in both cultivation systems is speed. High 24-hour temperatures in combination with an active climate that is conducive to growth will ensure the best results. In high-wire cultivation (with supplementary lighting or in summer), the plants easily settle into their rhythm. The vigour in combination with the open crop growth and the non-aborting of fruits ensure continuous production and balance. In crops with supplementary lighting, both the plants and the cucumbers themselves remain an attractive dark green, and very little chlorosis occurs. The crop growth rate and the fruit shape remain very good. The intermediate mildew resistance contributes to the low incidence of mildew.

In the traditional summer crops, the growth rate of Toploader clearly differs from the current standard varieties. Whereas these varieties tend to come under great strain in hot weather, Toploader actually performs best at high temperature. In other words, here too the best results can be seen when cultivating for speed. This is a particularly advantageous characteristic in businesses equipped with CHP generators. In the summer period or under artificial lighting, growers often find themselves confronted with a surplus of heat. Toploader uses this warmth and converts it into productivity and quality.

Despite the vigour, the crop remains very open. The second crop grows steadily and is controlled by the heavy load of fruit on the main tendril. The fruit formation also remains very good in this period. Consequently, it is possible to maintain slightly smaller distances between plants. A plant density of 1.7 or 1.8 plants per metre provides good results.

Characteristics of Toploader

Stem

- Steady, gradual initial growth
- Strong, vigorous plant
- Very productive
- Fruit size 350g - 400g or 400g - 450g
- Attractive, straight, full-shaped cucumbers
- Very good fruit colour

Lateral

- Selective fruit development
- Little or no fruit abortion
- Open crop
- Uniform quality
- Fruit in the low end of the 400g - 450g range
- Very high productivity
- Very good fruit colour



Cultivation

It is best to start with a plant propagated fairly quickly. Build up speed immediately after planting. Ensure the temperature does not drop below 19.5 degrees at night. Always ensure the temperature has reached 21 degrees by sunrise. Build up the temperature and moisture level rapidly during the day. Toploader grows more quickly at 26 degrees and at 80% relative humidity than at 25 degrees and 70% relative humidity. Try to prevent any dip in the relative humidity. That would mean too much ventilation. Maintain a minimum pipe temperature in addition to this temperature policy. Only under truly hot summer conditions should you consider not heating the pipes at all. Always heat the pipes again at the end of the afternoon and the evening. This is to stimulate the activity and growth of the crop. The accumulated cultivation speed gives you selectivity in the completion of flowering and you will be able to harvest cucumbers of a good size and shape.

You should also ensure that the EC in the slab is high enough. Values between 3 and 3.5 fit very well with a vigorous variety such as Toploader. This prevents root pressure. Do consider, however, that the plants consume more water at the higher 24-hour temperature, and will therefore require longer trickle irrigation systems in the afternoon and evening. You will also need to provide the plant with sufficient nutrients in this period. Only between 12 noon and 3PM, or during a heat wave, is slightly lower EC provision permitted. This cultivation regime can be adhered to until the end of the cultivation period, as the behaviour of the tendrils of the plant is not significantly different from the behaviour in the stem.

In a high-wire system, you should begin with a set of a maximum of two to three fruits. Depending on the plant density, you should then thin them out. In the case of more than 2.5 heads per metre, thinning out alternately is the best option. In the case of 2.5 heads or fewer per metre, sets of two on the inside and one on the outside amount to a good plant load. This thinning out policy in combination with rapid cultivation prevents weeks with more than 12 cucumbers per m². This way, you can continue to harvest young, quickly-grown cucumbers. The vigour in combination with non-aborting ensures that the plant remains in balance. Note: the thickness of the head of the plant determines whether the 24-hour temperature is too high or too low.



Propagation

Toploader germinates at a gentle pace and very uniformly. It is important to build up some speed in the plant's growth. This variety can be grown at a 24-hour temperature 1°C higher than standard varieties. A slow-growing plant gives rise to too many flowers on the stem, as a result of which the fruits can be too short. The colour of the plant is fairly dark.

Planting period

Where supplementary lighting is used, Toploader can be sown early and cultivated all year round. However, more supplementary lighting will be required in the autumn. For a summer crop (high-wire and traditional), the best planting period is between March and the end of June. The variety is less suitable for planting in July and August if supplementary lighting is not going to be used.





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