

## Growing Tips

# DR4299TC

De Ruiter® seed variety DR4299TC is a very tasty grape tomato suitable for short and long crops. Under proper growing conditions, it can be grown well in a variety of locations across North America.

## Grafting

DR4299TC has a limited disease resistance package. For this reason, grafting is a must. In long crops, we recommend the use of DR0141TX, Multifort or Maxifort. For short crops, DR0138TX is a better option. For 2:1 grafting, we recommend pinching on the second true leaf. Avoid low light levels early after grafting phase; when combined with higher temperatures it can lead to physiological disorders. For best results in long crops, it is ideal to graft 1:1 to increase the vigor in summer and the end of the season.

## Planning your crop

The success of your DR4299TC crop depends greatly on the head density you will implement. The timing of when you increase or decrease the head density also plays an important role for the success of your crop. DR4299TC needs a good micro climate to protect the crop in hot months with high light intensity—this will help the crop keep its vigor until the end.

Grow in a high-tech glasshouse, with extra CO<sub>2</sub> and hydroponics, for transplanting in December/January/February and end in Fall/Winter. We recommend a head density ranging from ~ 4.5 to ~ 5.5 in summer time. Anything lower than 4.5 can decrease the crop vigor rapidly. On different crop schedules, the age of the crop and planting dates should be considered when planning head density.

For long crops, avoid loading more than 3 heads per single rootstock. Grafting 1:1 can be done and it is a good strategy if a differentiated nutrition plan is applied in the first weeks of cropping to balance the extra plant vigor.

The recommendations in this article are based upon field observations and feedback received from a limited number of growers and geographies. These recommendations should be considered as one reference point and should not be substituted for the professional opinion of agronomists, entomologists or other relevant experts evaluating specific conditions.

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### TYPE

Orange color grape tomato

### PLANT TYPE

Long (indeterminate)

### AVERAGE FRUIT WEIGHT

8 to 12 grams

### USE

High-tech greenhouses

### DISEASE RESISTANCE \*

HR: ToMV:0-2/Aal

IR: Pst:0

## Plant vigor and irrigation

After transplanting early in season (January), DR4299TC shows large leaves, a semi-full canopy and indication of good vigor. This can be deceiving when in preparation for the summer time crop. As the plant loads and harvest starts, DR4299TC will switch into a more generative mode, once high temperatures and high light kick in. The crop will become extremely generative once it ages. For this reason, it is important to maintain vigor and leaf area for protection and good photosynthesis.

When planting in summer time, given its challenges (heat and light), a specific plan should be considered. You will need to carefully run a different nutrition plan and the start head density should be adjusted. A review in the watering strategy, growing media, EC and pH should not be overlooked. Extra care should be taken in the irrigation strategy, specifically in hot areas so the roots develop well. Growing good roots is the number one factor for a healthy and successful crop. The major concerns starting a crop in summer time are:

- Potential excess of vigor early in season
- Potential poor root development, leading to diseases and consequently a weak crop
- Heat stress leading to flower abortion and consequently a poor fruit quality
- Physiological disorders, including fruit rot and poor coloration.

## Managing your crop, pruning and harvest

DR4299TC delivers fruits in trusses or sometimes forking trusses and bunches. Pruning the last flowers in the set should be done when these flowers are weak and/or too small. Pinching the last 1-3 flowers is ideal and practical. Truss support is needed when light levels are low to avoid kinking.

The best results for taste are reached when harvested at a fully ripened stage. For this reason, extra care is needed in the irrigation strategy to help minimize the impact of fruit cracking. Harvesting immature fruits will not deliver optimal taste results.

Avoid changes in fruit temperature after fruits are harvested. Moving fresh harvested fruit to coolers and subsequently packing the fruit in a warm environment will lead to condensation on fruit and is not recommended. Variations in temperature will promote growth of fungi on the fruit surface and will decrease shelf life. Using registered products to control powdery mildew is a must. DR4299TC does not have any resistance to mildew.

In the peak of summer time, for crops planted in December/January/February, maintain the crop as fresh as possible (aim for vigor) and keep it protected from heat stress in areas that heat and high luminosity are a concern. Let extra leaves grow, if possible and review your nitrogen levels to ensure they keep up with demand. Extra care is needed with the crop when it is put in a generative environment. If shade curtains are available, use them with restrictions. Same with fogging system. Use white wash on the roof if needed.

### \*KEY TO DISEASE RESISTANCE

<b>Aal</b>	Alternaria stem canker
<b>Pst</b>	Bacterial speck
<b>ToMV</b>	Tomato mosaic virus

### HR — HIGH RESISTANCE

The ability of a plant variety to highly restrict the activities of a specific pathogen or insect pest and/or to restrict the symptoms and signs of a disease, when compared to susceptible varieties. Varieties with high resistance may exhibit some symptoms when specified pathogen or pest pressure is severe. New and/or atypical strains of the specific pathogen or pest may overcome the resistance.

### IR — INTERMEDIATE RESISTANCE

The ability of a plant variety to restrict the growth and development of the specified pest or pathogen, but may exhibit greater range of symptoms compared to varieties with high resistance. Intermediate Resistant plant varieties will show less severe symptoms or damage than susceptible plant varieties when grown under similar environmental conditions and/or pest or pathogen pressure.

