SCARLET STAR F1

Sakata Vegetables – Red Grape Tomato

ABSTRACT

This document is intended for commercial fruit production of Scarlet Star (Hybrid) in long cycle production for heated greenhouse environments. This document will briefly outline the given variables & challenges that are critical to the variety's success.

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Kimberly Kuden
Protected Culture Sales Manager – North America
kkuden@sakata.com

Pieter Vermeulen
High Tech Tomato Specialist – Europe
pieter.vermeulen@sakata.eu

Raul Morales
Product Manager (tomato, pepper, & cucumber) - Mexico
rmorales@sakata.com.mx

Tyler Hoopes
Protected Culture Specialist – US/CAN
thoopes@sakata.com

SCARLET STAR F1

Disease Resistance: HR: For / Pf (Ff): A-E / ToMV: 0, 1 \\ IR: Mi^ / Ss

Plant Habit

- Vigorous growth with fast maturing fruit; also increased cluster formation can encourage greater production throughout the season.
- Outstanding yield potential with great power to carry through long grafted cycles and requiring less labor. This is due to the constant setting ability of triple and multi-splitting cluster formations (decreased amount of lengthy single trusses reduces the harvest zone for labor).
- Vigorous plant prior to grafting (use medium to high vigor rootstock) – side shoots have good strength when increasing head density (less fragile for crop management).
- Full canopy with lighter color green than Crimson Star (Hybrid).

Fruit Characteristics

- Average fruit weight: 10-12g (with specified crop training).
- Shape is slightly elongated (i.e. torpedo shaped), typical for snack tomato.
- Consistent high Brix and balanced acidity throughout the season – more acidic than Crimson Star (Hybrid).
- Firm texture with excellent bite.
- Red color with moderate gloss.
- Excellent shelf life.
- Fruit has good attachment during typical labor tasks (lowering & leaning, etc.) – low/no fruit drop.
- Recommended for single pick.

Creating plant balance through crop training

Initial crop management

- To control the plant and encourage generative behavior at the beginning of the cycle, place the plant on the substrate slab when the first cluster is flowering – this will support further plant and root development. Additionally, the head density should be increased to the final density before the end of March. Extra shoots should be kept 2 - 3 weeks later than more generative varieties.
- Cluster Management: Training the first four clusters when the light levels are low has the most significant impact to a successful crop. The plant will try to support 2 – 4 splits per truss during early flowering stages. Initially, the plant is not able to support maximum yield potential, opposite from what the plant behavior demonstrates. Then, the 3rd cluster beneath the newest flowering cluster needs to be pruned to only 2 (max 3) branches (or, train labor to aggressively prune cluster ends).
  - Limiting fruit load is key at this stage to allow plant development and to achieve the target 10g fruit size. If crop management is initiated at the beginning of the crop cycle, harvesting will be much more efficient (the harvest zone will be tighter due to proper crop training, also increased average fruit weight). This strategic method of crop steering needs to continue through the entire season.
  - If the above steps are not followed, possible effects could be missing fruit set, small fruit size during the main season, or flower abortion.
- Plant Balance Management: Scarlet Star (Hybrid) has similar plant habit as Crimson Star (Hybrid), but slightly stronger. The strong nature of the plant is susceptible to having many leaves which can overwhelm the canopy if a persistent deleafing strategy is not implemented. To steer generatively, remove a new leaf from the head each week throughout the entire season, or as needed. If the plant falls out of balance (vegetative), continue pinching a new leaf each week.
  - The head density should increase near 4.2 heads/m2 and not further, otherwise the canopy can become crowded (limiting air movement & delaying fruit maturity). This will also help steer the plant more generative, ultimately increasing production.

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Sakata Seed America, Inc. 18095 Serene Drive, Morgan Hill, CA 95037 • (408) 778-7758 • sakatavegetables.com