

Mitigate cherry doubling with Parka®



Cherry Fruit Doubling

Doubling is a deformation of the fruit that results in two equally sized cherries that are insufficiently separated or one underdeveloped fruit protruding from a normally sized one known as a spur. Double and spur fruit can result in economic losses as they are considered culls and they are usually more prone to decay (Micke et al, 1983). On average doubling can range between 5% and 15%, depending on location and cultivar. However, it can reach 50% on susceptible cultivars in hot growing areas. (Whiting and Martin, 2021). Doubling is likely to increase as growers plant orchards in warmer climates and as the climate gets warmer.

This disorder occurs as a result of hot summer temperatures during the flower differentiation stage, affecting the development of flower buds that are forming for the next season's crop. Temperatures above 94° F (34°C) can cause the pistil of the developing flower to double and produce two incomplete cherries the following season (Herrero et al. 2017).

Cherry fruit spur



Cherry fruit doubling



Cherry fruit doubling





Parka® for Fruit Doubling Prevention

Parka® applied post-harvest supplements and strengthens the leaf cuticle. Furthermore, it has shown to increase the leaves' chlorophyll and pheophytin content, as well as improve net CO₂ exchange and transpiration rates. This overall enhanced tree performance suggests better resistance to heat stress which allows the tree to continue photosynthesizing and supporting flower development and ultimately decrease the number of doubled fruits the following season.

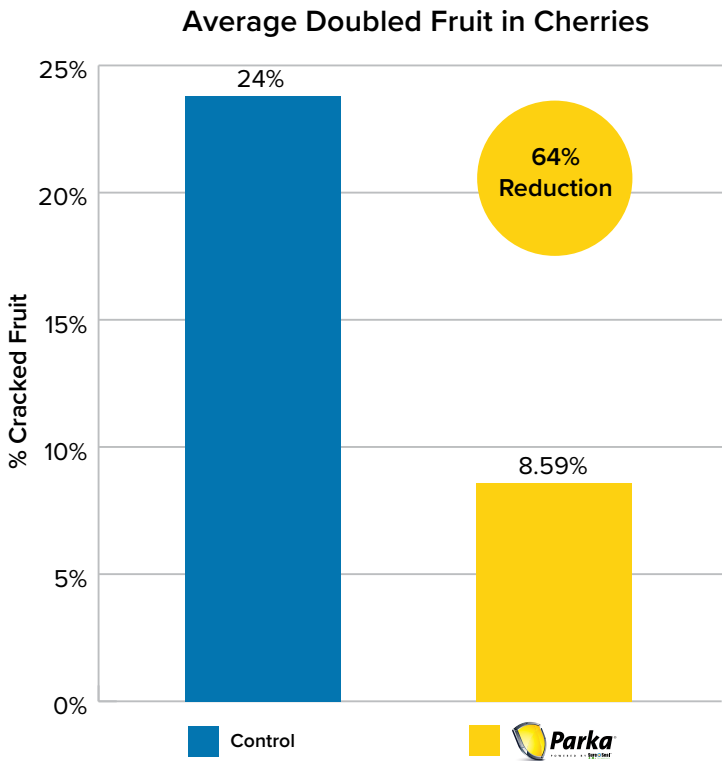
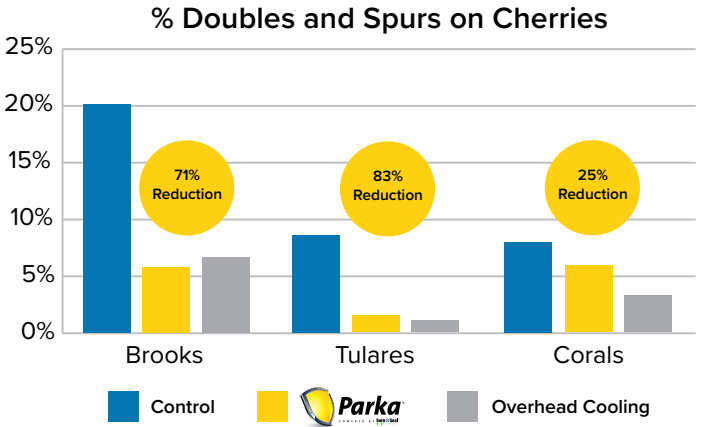


Figure 1. Average results of post-harvest applications of Parka® for fruit doubling reduction. (Source: Internal data compiled from 3 trials between 2017 and 2020)

Parka® on Cherries Post-Harvest

- Reduces cherry doubling by up to 64% over control (Figure 1).
- Reduces doubles and spurs as effective as overhead cooling (Figure 2).
- Easily tank mixed with foliar nutrients and pesticides.
- Leaves no visible residue.
- Exempt from maximum residue levels.
- No preharvest interval, No worker reentry interval.



Product	Rate	Applications	
Parka	1% v/v	June 2019	July 2019

Figure 2. Parka® and overhead cooling post-harvest application to reduce double and spurs on cherries in California in 2019 and 2020 (Source: Grower Packout Report, 2020)

Post-Harvest Parka® Program for Cherry Doubling

Apply 1 gal of Parka® per acre 1-2 weeks post-harvest. Reapply as needed every 14-21 days for a minimum of 2 applications per season.

References

Herrero, M., et al. 2017. Flowering, Fruit Set and Development.

Micke, W., et al. 1983. Doubling potential of sweet cherry cultivars. Hilgardia.

Whiting, M. and R. Martin. 2021. When and how to reduce doubling in sweet cherry. WSU Tree Fruit.



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