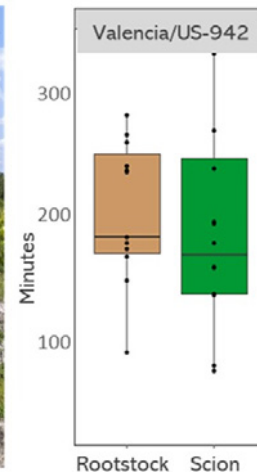


To Inject into the Rootstock or the Scion?

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Summary: The current label recommends injecting oxytetracycline (OTC) into the rootstock, but this may not always be possible. We are currently studying the uptake rate of OTC in 8-year-old 'Valencia' trees on different rootstocks. Injections were performed in May 2023 between 9 am and 12 pm. We used FlexInject™ injectors filled with 100 ml OTC (11,000-ppm rate). The uptake rate was variable between trees and between trial locations and ranged from less than 30 minutes to several hours. We did not measure any significant difference in the uptake rate between scion and rootstock. Note that regardless of whether

injecting into the rootstock or the scion, the uptake rate is fastest during periods of active transpiration (i.e., during mid- to late morning) and when the trees are well-watered and have fully expanded leaves. Sunny and dry conditions also enhance transpiration and therefore the uptake rate. Injecting into the rootstock is preferred for trees with a short main trunk as it provides more time (distance) for the OTC to spread before reaching the canopy. Injections right beneath a main scaffold branch should be avoided as the injected material will move mostly into the side of the canopy connected to that branch as illustrated in the

photo above using dye. If possible, try to inject in line with the crotch of the scaffold branches for better distribution throughout the tree. Yield and fruit quality were significantly improved in all trials, regardless of whether the trees were injected into the scion or the rootstock trunk.

Take Home Message:

- Injections into the rootstock or scion are both effective.
- The leaf area, the time of day, and weather conditions influence the uptake rate.
- Rootstock injection may be better for trees with a short trunk.

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