



“Fruit Facts” – Monday, October 11, 2021

We are currently recruiting for the Winter 2022 Futuro Financiero course (piloted as the *Master Class* program for Hispanic employees in the falls of 2018 and 2019). The Cornell Small Farms Program and CCE LOF are actively seeking students in the Western NY region to enroll in the 2022 course.

Please review the following link to enroll in the 2022 course: <https://smallfarms.cornell.edu/2021/10/how-were-building-a-strong-nys-agricultural-industry-with-current-and-future-programs/>

Horticultural Notes...Mario Miranda Sazo

Defoliation of Trees in On-farm Nurseries...Terence Robinson and Poliana Francescatto

If nursery trees are to be dug in the fall and then fall planted or stored during the winter and spring planted they need to be defoliated before digging. Trees should not be dug with leaves on them since leaves transpire large amounts of water and can dry a tree out in a matter of days. Also the leaves become moldy in storage resulting in molds on the tree itself.

Most commercial nurseries use chemical sprays to aid in defoliation. Most commonly copper is used to defoliate the trees. However, if the copper concentration is too high the bark, lateral buds and the cambium of the tree can be damaged resulting in poor growth or tree death the next year. Over the last 30 years, we have seen numerous examples of copper damage to trees from nursery defoliation treatments.

To help NY growers and nurseries achieve a consistent and safe defoliation without tree damage, we conducted trials in 2017-2019 in an on-farm nursery in NY State where we compared numerous copper concentrations in combination with Urea, Silwet, and ABA. The best results were obtained with low doses of copper chelate plus ABA (ProTone). However, ABA is not yet labeled for use as a defoliant in the nursery. The second best treatment was a **low doses of copper chelate plus Urea plus an organosilicone surfactant (Silwet)** (see Table 1). Be careful not to exceed the recommended rate of Copper chelate because higher rates can damage lateral buds which are needed next year in the orchard for branching. Two sprays worked best (4 and 2 weeks before expected digging) but one spray at 4 or 3 weeks before digging also gave acceptable results. With warm temperatures in October, complete defoliation was achieved 4 weeks later but with cool temperatures 5 weeks was required. Trees should be dug in early November but before the ground freezes or the first severe cold snap which usually occurs in late November in Western NY.

Table 1. Recommendation for chemical defoliation of nursery trees in NY State.

Timing ¹	Product	Concentration	Rate of Formulated Product
Early October to mid-October	Copper EDTA (7.5% Cu) +	2%	256 oz/100 gal
	Urea+	1-3%	1-3 lbs./ 100 gal
	Silwet organosilicone surfactant	0.1-0.25%	1-2.5 pt./acre

¹Apply 4 and 2 weeks before expected digging.

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