

Assessment of pulsed application of pesticides for disease control in peach

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Trial in Marsun peaches, Titan Farm, Ridge Spring, South Carolina 2014

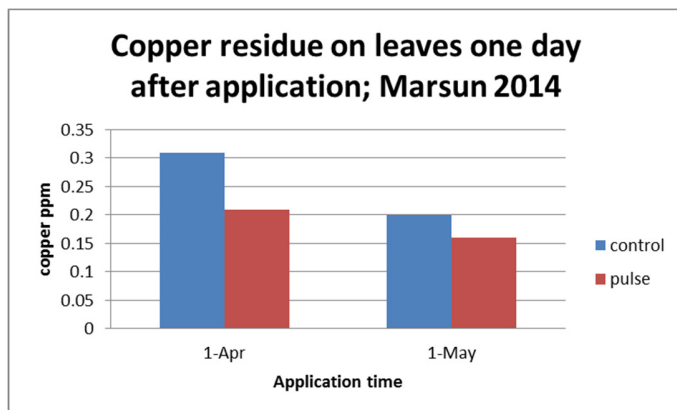
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Overview

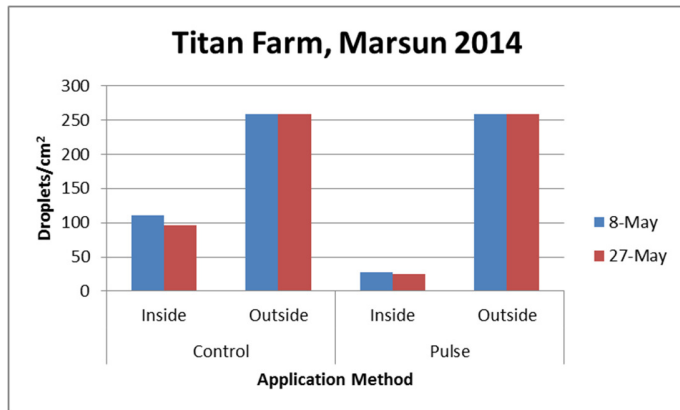
In this trial we tested the hypothesis that pulsed applications of spray material would control bacterial spot (*Pseudomonas arboricola*) on susceptible cultivar 'Marsun' just as effectively as regular sprays. Pulsed applications apply less material (in our case about 35% less) on the tree but the claim is that control efficacy is maintained compared to regular applications because the pulse technology improves active ingredient distribution on fruit and leaf surfaces.

Supporting data:

Using copper residues, we determined that about 30% less spray material was deposited on the leaves. The figure below shows residue data of two assessment dates.

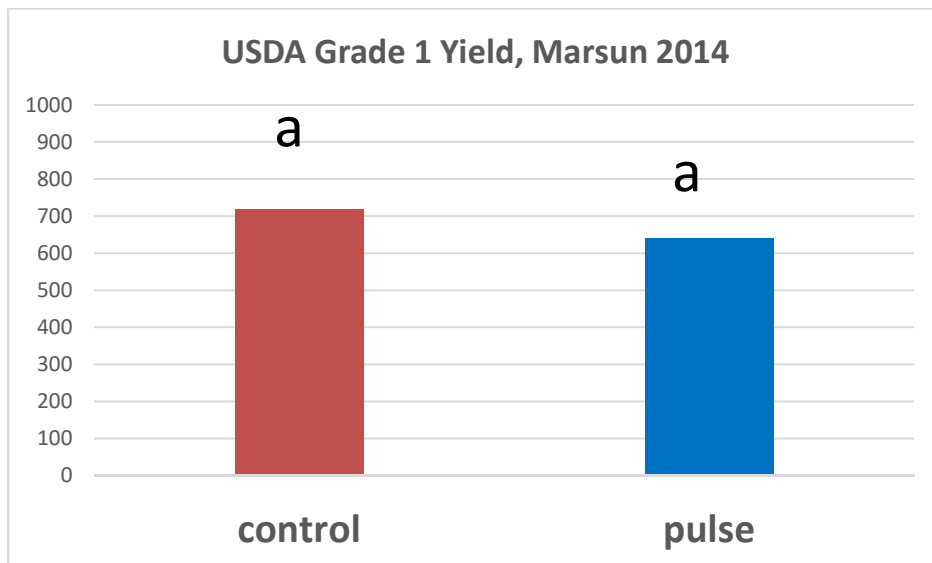


Using Syngenta spray cards, we determined that the deposition of droplets was very different between treatments within (inside) the tree canopy. We counted much fewer droplets per cm² in the pulse applications compared to the control. The spray pattern outside the canopy was the same.



The above results were somewhat expected due to the application of about 35% less spray material. The question now was, would disease control suffer as a consequence.

Packout data based on data provided by Titan Farm. Shown is just the total yield difference between the Control and the Pulse treatments ..



Across all fruit sizes and also reflected in the total yield the differences in USDA grade A yield in the pulse application compared to the grower standard (control) was not statistically different.