

ACCEDE™ Peach Grower Trials in 2021, 2023 in New Jersey

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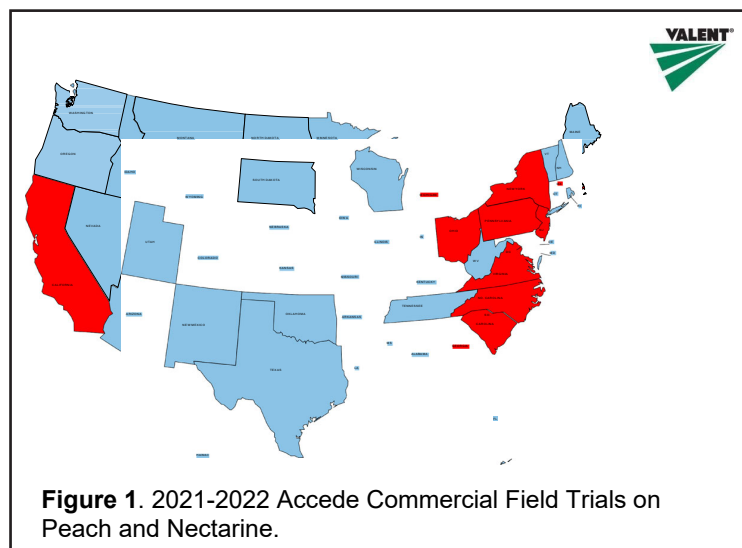
Professor Emeritus Rutgers University

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ACCEDE™ - A New Apple and Peach

Thinner. A new PGR thinner was released by Valent in 2021 under an experimental use permit.

- Trials were conducted in California, NJ, MI, Ohio, PA, NY, MA, VA, NC, SC, and GA (Figure 1).



- Over 10 grower locations in NJ in 2021, ACCEDE™ was applied by growers under the EU permit in 2021.
- The active ingredient is ACC, applied at bloom, which causes the peach to promote Ethylene which causes a % of the flowers to abscise.
- Accede is now fully labeled for use in the USA for peach and apple thinning.
- Thinning peach flowers rather than fruit allows the tree to conserve more nutrients and carbohydrates so

that can support the remaining fruit better, resulting in larger fruit size.

- All ACCEDE™ treatments required additional hand thinning.

2022 Jersey ACCEDE™ Trial Overview

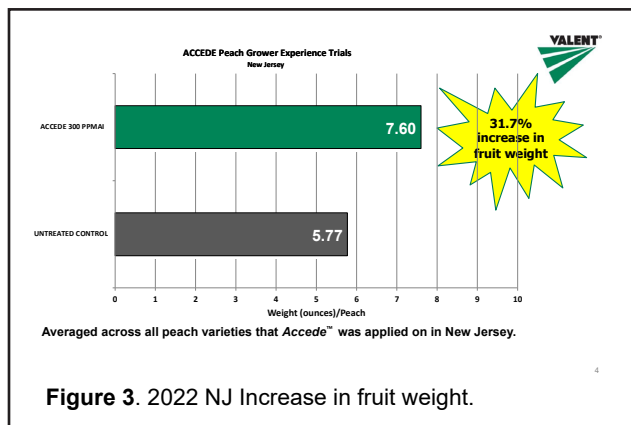
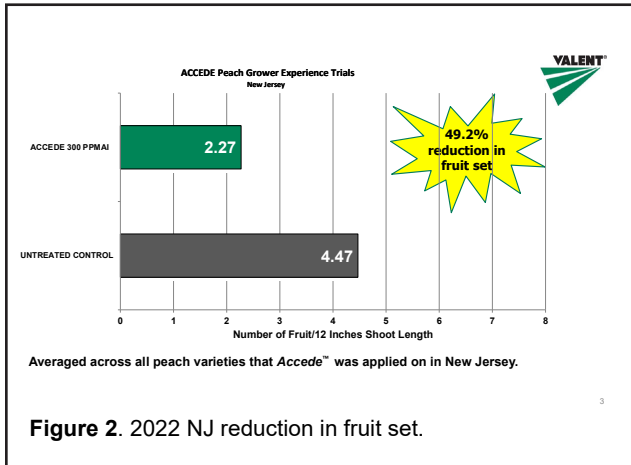
- In 2022 ACCEDE™ a smaller number of trials were conducted by 3 peach growers in New Jersey (two in the southern part and one in the northern part) (Many north Jersey growers and peach cold injury and did not use ACCEDE™ in 2022).

- Accede™ was applied with one application @ the lower rate of 300 ppm with a spray volume of 100 GPA when peaches were 20 to 100% bloom.

- A non-ionic surfactant (NIS) added to the spray solution at 0.05% (v/v).

- Peach varieties treated in New Jersey were Andy's Candy, Carolina Red, Evelyn, Gloria, Snow Giant, White Lady, Flaming Fury including PF 8 (white), PF 8 (yellow), PF 9, PF 12, PF 13, PF 27, PF 28, PF 35, and PF 42.

- All varieties had a heavy bloom and were applied at bloom.
- Bloom treatment was compared to an untreated control.
- **2022 NJ trials averaged a 49% reduction in fruit set (Figure 2).**
- **2022 NJ trials averaged 32% increase in fruit weight (Figure 3).**



USA Summary of Fruit Set reduction by peach varieties trialed across the US. There are differences by variety (Figure 4).

- Thinning results varied from a few percent to 80 percent but averaged 38%.
- Reduction in hand thinning time 44%.
- Increase in fruit size 8%.

2023 NEW Jersey ACCEDE™ trials

- Multiple grower trials are in place across north and southern NJ.
- Two replicated trials, one each in Hunterdon and Morris County have been established.
- Bloom in North Jersey was approximately 14 days earlier than past years.
- Treatments were applied at full bloom/beginning PF on April 14 (Figure 5).
- Evaluation 10 days after treatment with ACCEDE™ treatment effects clear, fruit aborting on treated trees, and healthy on UTC trees (Figures 6, 7, 8; Photo Credits, Win Cowgill).

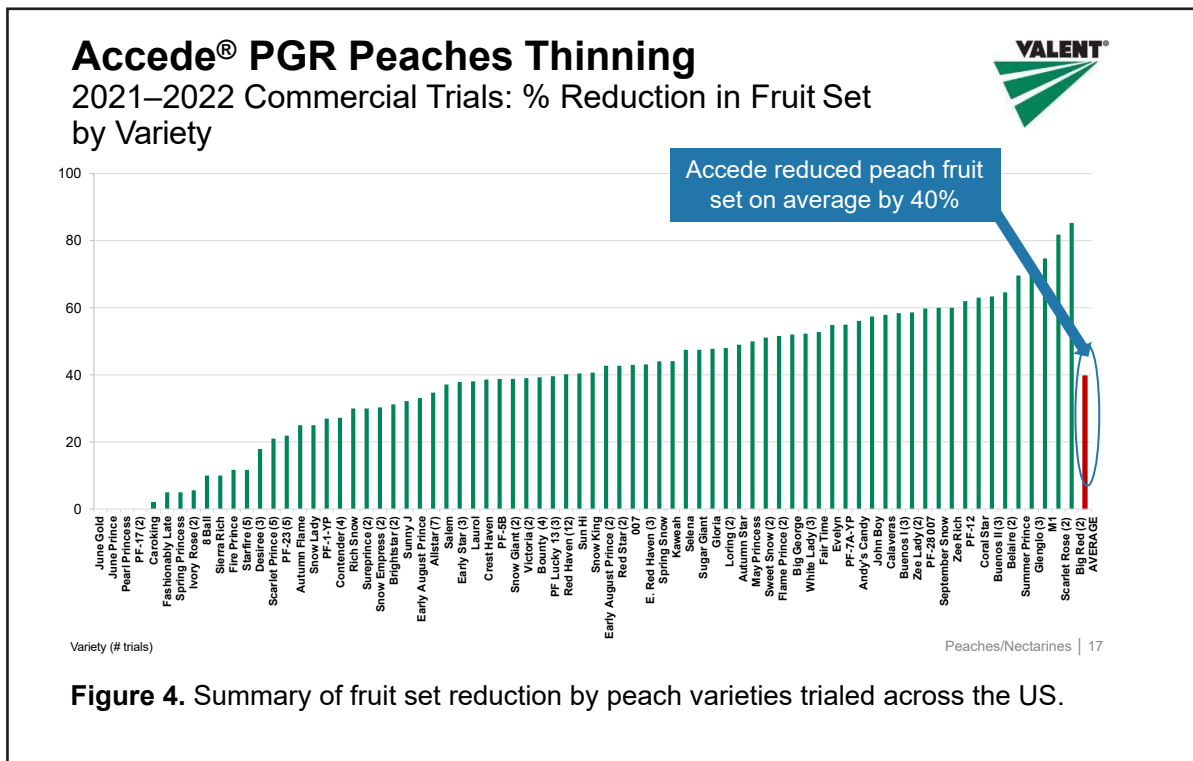




Figure 5. Morris County, NJ - Full Bloom at treatment with Accede.



Figure 6. Hunterdon County, NJ - Peach fruit 11 days after treatment with Accede-brown sepals, % flowers/fruit aborting.



Figure 7. Hunterdon County, NJ - Peach fruit 11 days after treatment with Accede-brown sepals, % flowers/fruit aborting.



Figure 8. Hunterdon County, NJ - Peach fruit, untreated control flowers 11 days after Accede-treatment date- most fruit growing, sepals look healthy, have color.



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