

# Chemical Blossom Thinning of Peaches

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As with any commodity in which we compete globally, processing peach growers must reduce costs. Hand thinning extra early and early cling peach varieties can easily represent 30% of our annual production expenses. There are two thinning agents currently available to peach growers that can help reduce costs. One is a blossom thinner called Entry<sup>®</sup>, which is applied at bloom to thin off flowers and thus reduce fruit set. Another material is Release<sup>®</sup>, a gibberellic acid material that is applied mid-season and reduces the number of flowers present the following spring. Last season I monitored a few simple tests growers conducted in their own orchards with Entry<sup>®</sup> blossom thinner. One grower applied Entry<sup>®</sup> to Loadel cling peaches, Spring Snow white peaches, and Arctic Star white nectarines. Entry<sup>®</sup> was applied at a 3% concentration (3 gallons of Entry<sup>®</sup> in each 100 gallons of water). We compared a few rows sprayed with a standard application at 100 gallons per acre, an electrostatic application at 40 gallons per acre and unsprayed trees.

Thinning in the Loadel block worked pretty well, reducing set from 65% in unsprayed trees to 36% set in trees sprayed at 100 gallons per acre. Chemically thinned trees still required some follow up hand thinning. Trees treated with the 40 gallons per acre electrostatic application had almost no thinning effect (62% set). Spring Snow peaches were thinned a little from the blossom sprays, but results were not acceptable (87% set in untreated trees, 66% set in 100 gpa treatment). There was virtually no thinning effect in the Arctic Star nectarines at any volume.

Chemical blossom thinning is far from being perfected but the Entry<sup>®</sup> material is the best blossom thinner we have tested. At this point we can offer very general guidelines but many details still need to be worked out.

- Thinning effect is highly variable among varieties. Loadel is the variety most successfully tested. Avoid thinning Dr. Davis.
- Volume of water per acre is very important. Low volume (even electrostatic) applications do not work. A minimum of 100 gallons per acre is necessary – 200 gpa is more effective. Consider reducing the concentration of Entry<sup>®</sup> when increasing the volume of spray.
- Applications on cool days or at night may be more effective than warm, mid-day applications.
- Direct most of the spray into the top 2/3 of the tree.
- Try to apply at 50-80% bloom.
- In years with drawn out bloom, two applications (early and late bloom) at 2% concentration may be better than one application at 3%.
- Overthinning is rare but has occurred – most poor results are from underthinning.

If you have never used a chemical thinner, I suggest you start with only a few acres of each variety until you get a feel for how your trees respond. The goal is to significantly reduce hand thinning, not eliminate it.