Plant growth regulators used in thinning programs include carbaryl insecticide, auxin hormones (napthalene acetic acid or napthalene acetmide), and cytokinin hormones (6-benzaldehyde). Organic growers sometimes use liquid lime sulfur and/or fish or mineral oil products labeled for fungicide and insecticide uses, respectively, that also exhibit some thinning effect when used at petal fall to 10-12 mm fruit size. Specific thinning programs should rely on grower experience and information from the latest New England Tree Fruit Management guide, available from the Cooperative Extension Service of each New England state.

In the photo below, the fruit cluster on the left was not chemically thinned. The single-fruit clusters in the photo on the right were from trees treated with carbaryl and 6-BA fourteen days prior.

Apple trees, both thinned and unthinned, will exhibit a 'June drop' roughly 4 weeks after petal fall. During this period, the tree will abscise naturally many fruit that did not compete for limited resources in the tree. Thinned trees will also shed their remaining uncompetitive fruit during this period. Growers should not be alarmed at seeing fruit on the ground at this time, but rather focus on the fruit remaining in the tree. A target on one fruit per blossom cluster on every other cluster born on the tree is considered a target for a good crop load.

Pollination and Fruit Set of Fruit Crops - Cornell Cooperative Extension Service Information Bulletin 237

Insect Pollination of Cultivated Crop Plants - 1976/2009 USDA ARS Bulletin

Plant Growth Regulator Uses in Apples - A Guide to their use in Wisconsin