

Spur Thinning Can Increase Fruit Size

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Dwarfing rootstocks and new training systems may provide cherry growers with new possibilities to manipulate fruit set and maximize fruit size and quality. In the past, large trees prevented any manipulation in crop load that may have improved fruit quality factors. Over-setting was an occasional problem with 'Bing' on Mazzard, but usually heavy pruning reduced fruit load adequately to produce quality cherries. However, with the highly productive dwarfing rootstocks, and self-fertile varieties a method to reduce crop load has become more important. These rootstocks and varieties will often set so heavily that fruit size and other quality factors are detrimentally affected.



Dr. Roberto Nuñez and other scientists from the Pacific Northwest have been researching the use of chemical thinners to reduce crop load. However, even if a successful thinning agent is discovered, labeling restrictions may delay utilization of the agent for several years. Therefore, a mechanical method to control fruit set may be an attractive alternative.

European growers will often thin fruit spurs to reduce crop load. In Germany, growers will quickly run their loppers over the top or the top and bottom of a branch to eliminate spurs. French scientists recommend the use of a gloved hand for the same purpose. The amount of spurs removed depends on the initial quantity of spurs and the tree vigor.



Loppers can quickly thin spurs

At last summer's 4th International Cherry Symposium Drs. Pierre Lauri and Jacques Claverie reported on spur thinning work they were involved in. Their work related to the influence of spur thinning on the fruit size of 'Summit', a large fruited Canadian variety. Table 1 compares fruit size on a non-pruned control versus fruit size on branches with 10%, 20%, 30% and 50% of the spurs removed at bloom. Fruit size increases significantly with the decreasing number of fruit.

In other data presented by Lauri and Claverie, not shown here, the actual number of large fruit (over 28mm) did not increase except in the 50% spur thinned treatment. All other treatments show only a reduction in small fruit. Economically, this may be the most commercially advantageous alternative since small fruit are of questionable economic value.

Lauri and Claverie also made several other interesting observations. For example, the effects of the spur thinning continued into the second year of the study. In other words, branches that were thinned in year one still had larger fruit size than the control in year two, even though no further thinning took place. In addition, old spurs seemed to be rejuvenated and continued to produce larger quantities of high quality fruit for a longer period of time when other spurs on the branch had been thinned. Furthermore, the incidence of brown rot was significantly decreased on treated versus untreated branches.

Both the Vogel Central Leader and the Spanish Bush training systems lend themselves well to spur thinning. Spur thinning is easily and quickly accomplished by rubbing loppers along the top and/or bottom of a branch. Even a steep leader tree on dwarfing rootstock can be easily and quickly thinned with this method.

Treatment	No. of cherries	Mean fruit size (mm)
Control	234 (100%)	25.6
10%	221 (94%)	25.8
20%	255 (65%)	26.6
30%	135 (35%)	27.9
50%	132 (34%)	30.5

Data by Lauri and Claverie