

unthinned, and the height growth is also considerably less. Under these circumstances it would appear as if thinnings had been actually harmful instead of helpful.

A more careful examination of conditions in 1915, and of the growth which has taken place in volume between 1915 and 1920, goes far, however, to bring the results arrived at into line with previous experience.

For example, we find that although all three of the quarter-acre plots were extremely crowded in 1915, the plot which was left unthinned had considerably fewer trees per acre than the other plots, which also meant that the average-size tree was larger^{than} on either of the two plots which were to be thinned. The unthinned plot had 6% percent fewer trees than the plot which it was planned to thin lightly, and 11% percent less than the plot which was *severe and long-continued crowding lowers the vitality of a stand, and lessens its response to a thinning.* to be heavily thinned. The light thinning reduced the number of trees nearly one third, while the heavy thinning made a reduction of almost two-thirds in the number of trees. Inasmuch as the smaller trees were in every instance selected for cutting the average size of the trees left on both the thinned plots then exceeded the average size on the untouched plot.

After thinning in 1915 the volume of the lightly thinned quarter-acre was 75% that of the check plot; by 1920 the ratio between the volumes had risen to 83%, showing that the volume growth after light thinning