EFFECTS OF MIDSUMMER WALNUT APHID INFESTATIONS
ON WALNUT QUALITY

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An experiment was designed to determine effect of brief, summer infestations of walnut aphid on walnut quality. This test compared walnut quality from 16 pairs of Ashley walnut trees where one tree in each pair was treated to exclude walnut aphids. On previously uninfested trees, walnut aphid populations began to develop on 6/27 on untreated trees and maintained levels greater than 15 per leaflet (suggested economic threshold) from 7/11-7/30, nineteen days. Walnut samples were collected from treated and untreated trees at harvest and submitted to Diamond Walnut Growers for quality analyses. Walnut aphids caused highly significant differences in percent light colored kernels, percent edible yield, and values per pound. They also caused highly significant increases in percent offgrade kernels and moldy kernels.