

The price per pound was increased by treatment with concentrate machine even though a 1-shake harvest was not accomplished.

With Trinta variety four pints per 200 gallons was applied on August 31 and harvest was on September 11, 1972. The check was harvested September 24. Almost 96% of the treated nuts were harvested in one shake. The treated nuts had 28.3% light and the checks had 22.3% light. There was a slight drop in edible from 44.3 for the checks to 41.3 for the treated. This drop may be explained by the higher percentage of offgrade due to shrivel with the treated nuts. This treatment was made quite early and they were not quite at packing tissue brown.

The price for both the treated and check were approximately 24.5¢ per pound.

Nut Looseners - W. Schreader, G. Martin

Three treatments were made on the Hartley variety on September 13, using 3 pints per 50 gallons per acre, 5 pints per 50 gallons per acre, and 5 pints per 250 gallons per acre. Heavy rains and winds occurred about 3 or 5 days later. At that time the 5 pints concentrate had the most nuts open and down, followed by the 3 pints concentrate and 5 pints dilute. By harvest September 20, not much difference between concentrate treatments was observable. The dilute was slightly less effective. These tests were not considered "normal" due to the unseasonal nature of the rain. Nut samples from each treatment were provided for residue analysis.

Ethrel^(R) Application to Walnut Trees - L. C. Brown

A 12-year-old walnut orchard was selected for the ethephon trial. The orchard had been irrigated 1-1/2 weeks previous to the ethephon application. Each row had alternate trees of Marchetti and Gustine. At the time of spraying it was estimated that 25-30% of the hulls of the Gustine variety were cracked and 15-20% of the Marchetti.

Two dosages were used; there were 23 trees to a row. Two rows (1 acre) were sprayed at the rate of 3-1/2 pints of ethephon per acre and one row at 1-1/2 pints.

Trees were sprayed with ethephon on September 6, and shaken 5 days later on September 11. The nuts were machine harvested September 12, and hulled the same day. By September 27, there were some yellow leaves appearing on both varieties and in both treatments. By October 5, all leaves had dropped that were yellow. There was minimal leaf drop.

Trees were shaken the second time on November 3 and harvested November 5.

Crack tests from Diamond Walnut showed no difference in quality between treated and untreated rows.

The purpose of the experiment was to determine if the crop could be shaken and harvested in a once-over operation. The yields from the second harvest show that ethephon, at the dosage used, did not eliminate the need for a second harvest.

Treatment	Estimate of crop remaining on tree after first shake	Amount of nuts from 1/2 row in trailer	Hullibility % of nuts with hull remaining on shell	Number of sacks hand picked -- 2nd pick
3 1/2 pt/A 120 gal/A	5-10%	7.50"	None	4
1 1/2 pt/A 40 gal/A	5-10%	--	3-5%	4
Check	30-40%	4.75"	10%	6