EVALUATION OF AIRLEG SORTING

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ABSTRACT

To evaluate if there is any benefit in "on farm" airleg sorting, 11 lots of walnuts (5 Ashley and 6 Hartley), each weighing in excess of 50 thousand pounds, were submitted to airleg sorting, separating each lot into five sublots: #1's, #2's, #1 and #2 combined, culls and non-airlegged. Each sublot was weighed to calculate percent in each category and sampled for quality evaluation and value determination. Results are not available at this time.

OBJECTIVES

The use of sorting walnuts with "airlegs," machines which sort dry walnuts by weight as a result of being exposed to a stream of air and therefore improving total load value, is a controversial subject and the question under study in this trial. 1983 results revealed that in 64 percent of the time the price gained by quality improvement did not offset the value lost by weight reduction. The 1983 trial was conducted with 74 lots of walnuts, each weighing about 50 pounds. The small lot size led to the belief that the results from this trial may have been in error. The 1984 trial was designed to eliminate any error due to small lot size.

PROCEDURE

In the 1984 trial 11 lots of walnuts were evaluated (5 Ashley and 6 Hartley). Each lot weighed approximately 50 thousand pounds. Continuous sampling before and after "airlegging" was taken, making up two 10-pound samples from each lot category (pre-airleg, #1, #2, combined #1 and #2, and cull). Total weights of each lot category were also taken.

RESULTS

Of the Ashley lots, 2.9 to 7.4 percent of the lot was removed from the #1 category nuts, indicating that value would have to increase from 1.1 to 3 cents per pound to make up for weight loss in order to break even. In the Hartley lots the most removed from any one lot was 1.5 percent. To make up this 1.5 percent weight reduction, the value must increase by 0.5 cents per pound. The quality data and actual value of the samples are not available at this time.

CONCLUSION

Without the quality data, no conclusions can be drawn. However, if the results are similar to the 1983 study, the use of "airlegging" dry walnuts to increase load value would be an ill-advised practice.