CHANDLER/HOWARD YIELD COMPARISON

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ABSTRACT

Eighth-leaf Chandlers and seventh-leaf Howard walnut trees yielded similar size crops on a yield per trunk size basis. In terms of actual yield, the year older Chandlers produced 44 percent more yield than the Howards.

OBJECTIVE

To compare the yield and quality of Chandlers and Howards in the same orchard under the same cultural practices over a number of years.

PROCEDURE

Collect yield and quality data from 40 individual Chandler walnut trees and 40 individual Howard walnut trees, each planted adjacent to one another in an orchard in Durham, California.

RESULTS

In 1987 the eighth-leaf Chandler trees averaged 121 dry pounds per tree or 2.90 tons per acre. The seventh-leaf Howard trees averaged 84.2 dry pounds per tree or 2.00 tons per acre. The Chandlers are larger than the Howards. The average trunk area of Chandler trees was 458 cm². Howards averaged 289 cm². This size difference is consistent with the fact that the Chandlers were grafted in 1980 and the Howards in 1981. Dry yield per cm trunk area was nearly the same with the two varieties. Chandlers averaged .26 lb/cm² trunk area while Howards averaged .29 lb/cm² trunk area. Perforated and/or broken shells are a concern with the Chandler variety. 1984, '85 and '86 samples indicate that the amount of perforated and/or broken shells are decreasing each year with 7.5, 4.1 and 2.5% respectively appearing in samples. 1987 quality data is not available at this time.

CONCLUSION

From three years' data, Chandler and Howard appear to yield similar size crops. However, in 1986 the sixth-leaf Howard trees are smaller and yielded more than the sixth-leaf Chandler trees did in 1985. Tree size and age have the greatest yield influence on these young walnut trees. Shell quality is getting better as the trees get older.

<table>
<thead>
<tr>
<th>Variety</th>
<th>Mean Yield/Tree (lbs)</th>
<th>Mean Trunk Area (cm)</th>
<th>Yield Efficiency (lbs/cm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Howard</td>
<td>84.2</td>
<td>289.4</td>
<td>0.29</td>
</tr>
<tr>
<td>Chandler</td>
<td>121.0</td>
<td>458.1</td>
<td>0.26</td>
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