JUNE-BUDDED CHANDLERS ON PARADOX
AND NORTHERN CALIFORNIA BLACK WALNUT ROOTSTOCK
COMPARSED TO GRAFTED CHANDLERS ON PARADOX ROOTSTOCK
1998

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ABSTRACT

In a 1996 planting June-budded Chandler walnut trees on paradox or Northern California (N.C.) black walnut rootstock are being compared to grafted Chandler trees on paradox rootstock. So far there is no yield difference between propagation methods. Only trees on the N.C. black rootstock has a significantly smaller trunk cross sectional area (TCSA).

PROCEDURES

One year old June-budded Chandler variety trees on Paradox and N.C. black walnut rootstock and two year old grafted Chandler variety trees on paradox rootstock were planted in 1996. They were planted in long rows and split into blocks. Each block being approximately 9 trees in length. There are four replicates of the three treatments. The trees are being trained by using the “low scaffold system”. Yield and TCSA data is being collected and analyzed by ANOVA and the trial is treated as a randomized block. TCSA data is calculated after measuring the trunk circumference 20 cm above the bud or graft union.

RESULTS

Table 1 shows the yield and TCSA data collected in 1998. There is no significant difference in yield between the two propagation methods or rootstocks. Yield for this first year averaged only 1 - 1.5 lbs. per tree. There is a significant difference in TCSA, with the June-budded Chandler trees on N.C. black rootstock having significantly smaller TCSA’s than the other two treatments.

DISCUSSION

This trial shows that, so far, there is no yield or size disadvantage to June-budded trees as compared to grafted trees on the same rootstock. This trial will continue for only a few seasons to be certain of these early results.
Table 1

<table>
<thead>
<tr>
<th>Variety</th>
<th>Rootstock</th>
<th>Propagation Method</th>
<th>Yield (dry lbs./tree)</th>
<th>TCSA (cm²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chandler</td>
<td>Paradox</td>
<td>Nursery Grafted</td>
<td>1.475 A</td>
<td>42.158 A</td>
</tr>
<tr>
<td>Chandler</td>
<td>Paradox</td>
<td>June-Budded</td>
<td>1.235 A</td>
<td>43.360 A</td>
</tr>
<tr>
<td>Chandler</td>
<td>N.C. black</td>
<td>June-Budded</td>
<td>1.058 A</td>
<td>35.065 B</td>
</tr>
</tbody>
</table>

Means not followed by the same letter are significantly different at the 5 % level by Duncan’s Multiple Range Test For Mean Separation.