

Westside Field Station Rootstock Trial - L. C. Brown

Seven different rootstocks were used in this trial. There are eight trees of each rootstock variety. The plot was established in 1965, and all stocks were grafted over to the Serr variety. J. rupestris was high yielder with slightly over 24 pounds of nuts per tree. J. major averaged 24 pounds per tree; J. hindsii averaged 16 pounds in one group of eight trees and 20 pounds per tree in another.

The Paradox root produced one-half of the crop of J. rupestris, or an average of 12 pounds per tree with no crop on three trees. Seven trees of J. regia did not bear. Seven trees of J. nigra and six trees of Royal also did not bear.

The rootstocks appeared to have a definite influence on the productivity of the Serr on the Westside. Tree growth was not as variable as was production.

KHFS Rootstock Trial - T. Browne

A walnut rootstock trial was established at the Kearney Horticultural Field Station at Reedley in 1963. Most of the 9 rootstocks were planted that year and topworked to the Serr variety the next spring. Current measurements of trunk girth and nut yield show positive correlation. The stocks rank in the following order beginning with the largest trees and heaviest yield: Paradox cutting, Paradox seedling, Royal seedling, N. Ca. Black seedling, Arizona Black seedling, Eureka seedling, Manregian seedling, Texas Black seedling.

Walnut Replant Experiment - L. C. Hendricks

A walnut replant experiment was established in 1973. One acre of old walnut trees was removed and the ground was subsoiled and prepared for planting. No fumigation was done. Nematode samples indicated that there were no parasitic nematodes in this one-acre experiment. Oak root fungus was found throughout the experimental area.

These trees were planted on 16' x 16' squares. There are 166 trees in the one-acre experiment. Three rootstocks are being tried; hybrid, English seedling, and northern California Black walnut. These trees were grafted to the Ashley variety soon after planting.

At the end of the first growing season the following measurements were recorded:

<u>Rootstock</u>	<u>Avg. Circumference</u> (inches)	<u>Avg. Diameter</u> (inches)	<u>Avg. Cross Sectional Area</u> (square inches)
Hybrid	11.78	3.5	11.04
English	8.92	2.84	6.33
Black	7.78	2.48	4.83

Several Black walnut trees were lost due to overirrigation during hot weather. No English seedlings or hybrids were lost.

Thus far, no trees have been lost due to oak root fungus.