

MOVING WALNUT TREES 1983-87

Joe Osgood

Abstract

In the fall of 1983, Chico walnut trees were moved with a 42-inch tree transplanter. Trees varied from first-leaf black walnut seedlings to third-leaf grafted trees. Fifteen matched pairs were measured and measurements compared the next four years. Through 1986 the non-moved trees were growing significantly faster, in tree circumference, than moved trees. In 1987 the moved trees were increasing their circumference as fast as the non-moved trees.

Objective

To get data on walnut tree responses to being moved in order to reply to repeated questions on this subject.

Procedure

Fourteen matched pairs of moved and non-moved trees were measured each season. Tree growth as measured by tree circumference was recorded and compared.

Results

In 1984, 1985, and 1986 the non-moved trees had significantly (1% level) greater increases in tree circumference than had the moved trees. In 1987 there was no significant difference in rate of tree circumference increase. When each year was compared to planting size this difference, each year, was as significant. One of the original moved trees died, which necessitated comparing fourteen pairs. Trunk sunburn appears to be more prevalent among the moved trees.

Conclusions

Through 1986 the moved trees, as measured by tree circumference, had not recovered from the 1983 move. In 1987 they had recovered to the point where there was no significant difference in trunk circumference increase between moved and non-moved trees.

In 1983 tree trunk cross-sectional areas were not significantly different between moved and non-moved trees. From 1984 to 1987 the non-moved tree trunk areas were significantly (1% level) different (larger) than the moved trees. The average trunk area of moved trees in 1987 was only slightly larger than the 1984 non-moved average trunk area.

Under these conditions it appears that moving walnut trees will set them back in tree growth more than three years.