

DEADENING VINES FAILS TO IMPROVE COTTONWOOD GROWTH

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Deadening vines that were growing into the crowns did not improve growth of cottonwood trees in the Mississippi Delta.

Twenty-five trios of comparable trees were located on droughty Robinsonville and Crevasse soils along the Mississippi River in Tensas Parish, Louisiana. Within each trio, one tree was left untreated, the second had the main stems of all entangling vines cut at ground level and a 30-inch segment of the stem removed, while the third was similarly treated but in addition had Ammate applied to the vine stubs. The cottonwoods ranged from 14 to 26 inches in diameter at breast height.

Radial growth of wood (inside bark) for 5 years preceding and 4 years subsequent to treatment was measured on two increment cores per tree. For various reasons (mainly mortality from various causes including spilled Ammate) only 15 trios were available for analysis 4 years after treatment. No significant differences within trio could be attributed to treatment after a covariance analysis that took into account growth rate prior to treatment. Though dry weather prevailed over half the 9-year period, inside-bark diameter of the average of all surviving trees increased by about 3 inches.

The untreated trees had significantly more vines per tree (45 vines) after 4 years than either the devined (34 vines) or devined-plus-Ammate trees (25 vines). No vines thicker than 1/4 inch occurred on treated trees, while vines up to 3 inches in thickness remained on untreated trees.

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