

Southern Forestry Notes



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KILLING BOTTOMLAND CULLS ✓

A mixture of 2,4,5-T and water, applied in frills, is a cheap and effective method of deadening cull hardwoods in the Mississippi Delta.

The chemical is mixed by adding one gallon of commercial product (a low-volatile ester containing 4 pounds 2,4,5-T acid equivalent) to 50 gallons of water. It was tested at Stoneville, Mississippi, on hardwoods over 5 inches in d.b.h. Three other tree-killing methods were tried at the same time:

Pouring Ammate solution (4 pounds of Ammate crystals per gallon of water) into a frill.

Spraying the lower 18 inches of the trunks with 2,4,5-T in oil--1 gallon of low-volatile 2,4,5-T ester (4 pounds acid equivalent) in 20 gallons of # 2 diesel oil.

Notch-girdling with no silvicide.

The basal spray was unsatisfactory. Only 41% of the sprayed trees were dead 2 years after spraying. The other treatments gave good kills. Mor-

tality was 83% for the 2, 4, 5-T in frills, 82% for Ammate in frills, and 89% for the girdles. Sprouting was negligible in all treatments, probably because of the record drouth of the last 2 years. Of the trees that failed to die, more than half had incomplete frills or girdles, usually in bark seams or deep catfaces.

Total costs of treating 20 ten-inch trees per acre (or 10 twenty-inch trees, etc.) would be \$1.43 for 2, 4, 5-T in frills; \$1.65 for girdling; \$1.74 for Ammate in frills; and \$2.13 for the basal spray.

Of these amounts, supervision, marking, and fixed costs were 67¢ per acre for each treatment except Ammate, where they were 60¢. Direct costs over and above this depended upon the number of 10-inch trees (or their equivalent) treated. Each such tree added 3.8¢ to costs if 2, 4, 5-T frilled; 4.9¢ if girdled; 5.7¢ if Ammate-frilled; and 7.3¢ if sprayed. -- J. S. McKnight and G. M. Furnival.