

How to Kill Hardwood Trees and Stumps

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Application of 2,4,5-T or Silvex amine with an oil can and an axe. 2 cc. (about 2 squirts from an average pump-type oil can) per cut will give fair control. Application in a frill is more positive.

Unwanted hardwood trees and sprouting stumps can be killed by inexpensive methods in practically any season. The materials commonly used are those which are often used in agricultural weed control. They are very effective when used properly, but are capable of killing associated plants and trees if care is not taken in their use.

Chemicals

In the Pacific Northwest, the most commonly used chemicals are 2,4-D and 2,4,5-T low-volatile esters and amines. Silvex (2,4,5-TP) is also widely used on some species, particularly bigleaf maple. These herbicides are available in liquid formulations, generally at a strength

of 4 pounds per gallon. If other concentrations are used, dosage rates can be adjusted accordingly. (The esters are to be used if oil solutions are to be made; amines are generally applied in the undiluted form.) The most widely effective of these chemicals is 2,4,5-T.

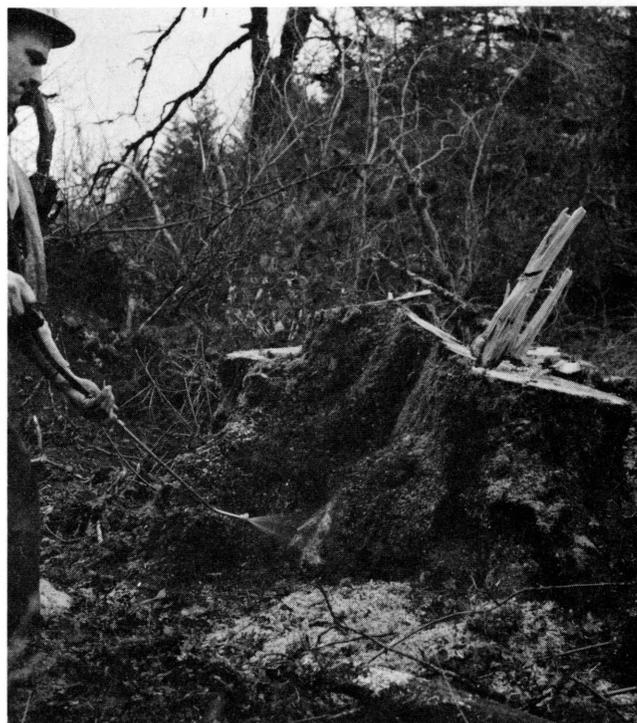
Ammate, technically known as ammonium sulfamate, is a highly water-soluble material, generally applied in the crystalline form. This material probably is less effective under northwest conditions than the other materials listed, but may be safer to nearby sensitive plants and trees.

Application

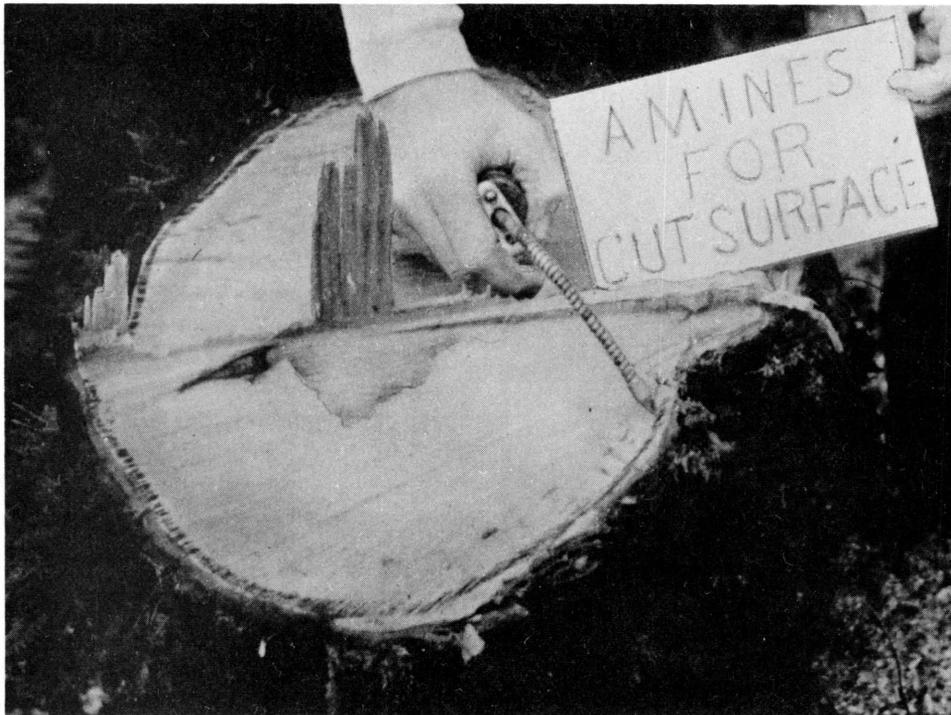
For tree killing, the chemical may be applied in either of two methods:

- (1) Basal spraying is effective at any season. This

Basal spraying of stumps gives reasonably good control of sprouting but involves bulky equipment.



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Concentrated 2,4,5-T amine is highly effective on freshly cut stumps. A narrow strip of chemical is all that is needed for an inexpensive and effective treatment.

involves the mixing of $\frac{1}{2}$ pint of 2,4,5-T ester, (or 2,4-D or Silvex) with 2 gallons of diesel fuel, and using this solution to soak the bark of the tree for the lower foot of the trunk until the solution runs off into the ground. The mist (volatilization or drift) from this treatment may be highly injurious to roses and other susceptible ornamentals. The same treatment may be used with fair success in killing stumps.

(2) *Frilling* involves the injection of undiluted 2,4,5-T amine, or (2,4-D or Silvex) into continuous frills around the tree, as low as possible. Frills should be cut solidly into the sapwood, with only one row of cuts so that the chip does not break out. After frilling, the concentrated amine is put into the frill either with an oil can or with commercially prepared cans for such applications. About 1 ounce of undiluted chemical is

required for a 21-inch tree. This method lends itself well to treatment of stumps.

Immediately after the tree is felled, apply the concentrated amine in a line no more than a quarter of an inch wide around the perimeter of the cut surface of the wood and inner bark (cambium ring).

None of the treatments for killing stumps are known to increase the rate of wood decomposition. The wood begins to decay sooner when the stumps are killed, however, and the stumps may be removed sooner.

If physical removal of the stump is desirable, it is wise to leave a tall stub to provide a lever for extraction after the roots are dead. Otherwise it is usually preferable to cut the tree as low as possible. Other suggestions for removing stumps are available in OSU Extension Service Fact Sheet 19.