
Using Bidrin Safely

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A leave-nothing-to-chance instruction program for applicators of Bidrin insures the highest degree of accident prevention. Bidrin is a new systemic insecticide from Shell Chemical Co. for control of bark beetles which carry Dutch elm disease fungi. Here is a valuable step-by-step description of proper techniques as shown at the University of Wisconsin.

CAREFUL PLANNING and training have become the hallmarks of pesticide use. The introduction of Bidrin, a systemic pesticide used to control "Dutch Elm Disease" and manufactured by the Agricultural Chemical Division of the Shell Chemical Co., has been accompanied by instruction and demonstration.

Public and private applicators have been trained by representatives from Shell, the Department of Agriculture, and the Department of Entomology of the University of Wisconsin. Joining with this team of experts has been the Hopkins Agricultural Chemical Co., sole distributor of Bidrin in Wisconsin.

A course of instruction was set up to train applicators who would be using the material. Applicators who attended the training sessions were issued permits by the State Department of Agriculture.

Subsequently, applicators were invited to Madison for a practical demonstration on use of the pesticide. Learning by doing, underscored by safe uses and practices, completed the training.

Applicators assembled at 10:00 a.m. in a public park (Fig. 1) and were given practical instruction by Professor Dale Norris, a member of the Department of Entomology, University of Wisconsin (Fig. 2). At the conclusion of his demonstration, and an extended question and answer period, ap-

plicators divided into groups and, under the supervision of experts, began to apply the pesticide to elm trees located in the park (Fig. 3).

For protection, applicators wore rubber suits and gloves and wore either face masks or goggles to avoid accidental skin contamination (Fig. 4). Each man had an opportunity to insert the aluminum tubes into trees which provide the vehicle for transferring the pesticide from the container into the tree. Practical instruction in this phase of the operation is vital since insertion of the tube cannot be done either by measurement or formula. It requires a "feel" which can be developed only by trial and error; the tube must penetrate the bark and tap into the cambium layer.

This step by step process helped to highlight the safe techniques which should be followed by all applicators. Use of a hammer rather than a hatchet was suggested for safety, thereby avoiding the risk of injury from a backswing of a hatchet (Fig. 5).

A special tool, used for inserting the steel conveyor tube provides safe placement of the tube in the tree. It was pointed out that the tube, when properly placed, should be parallel to the ground, and should not be inserted at an angle. Each tube is inserted breast high at a distance 5" to the right or left of the first tube so that the tree is ringed (Fig. 6).

Once a tube is properly inserted into the tree the plastic container, known as a Mauget injector, is then pressed together (Fig. 7) and inserted on the tube with the pesticide at the bottom (Fig. 8). A gentle push on the injector breaks the plastic seal inside the injector and allows the pesticide to flow into the tube. The injector is then inverted and allowed to remain in this position until empty (Figs. 9 and 10).

Once empty, injectors are then removed and discarded in a bucket. Safe disposal of expended containers is important. If they must be transported, the bucket should be covered. After collection they should be burned to avoid contamination.

The aluminum tubes are then removed with pliers; a slight twisting motion with the pliers facilitates removal. These tubes are then placed in a bucket for disposal (Fig. 11). Expended materials should be burned and the transporting container thoroughly rinsed.

Holes in the bark left by the tube are allowed to heal by themselves, but it is important to cleanse the area around them to avoid contamination (Fig. 12). Since Bidrin is highly soluble in water and alcohol, a spray solution of either can be used effectively.

To avoid contact, covering exposed skin areas is necessary, and protection of the eyes with a mask or goggles vitally important. "No smoking" should be observed at all times since the pesticide can be transferred from the hands to a cigarette or a pipe easily.

Only applicators who have been granted a permit will be allowed to use Bidrin, and their permit has been predicated on the course of instruction. A file of all permittees is maintained by the State Department of Agriculture.

Safe application in the use of Bidrin has marked every step in introducing this pesticide in Wisconsin and proves once again that the best method of instruction is the method that is constantly alert to accident prevention.



1. Prof. Dale Norris (left, hatless with jacket) addresses group at Bidrin demonstration.



2. Prof. Norris demonstrates insertion of aluminum tube into elm tree; later used hammer.



3. Divided into groups and under eye of supervisor, applicators begin tree injections.



4. Rubber coveralls and face masks are worn by applicators to avoid contact with Bidrin.



5. Hammer and special tool are used to insert aluminum tube into cambium layer of elm.



6. Ringing tree with injectors at five-inch intervals, breast high, assures best results.



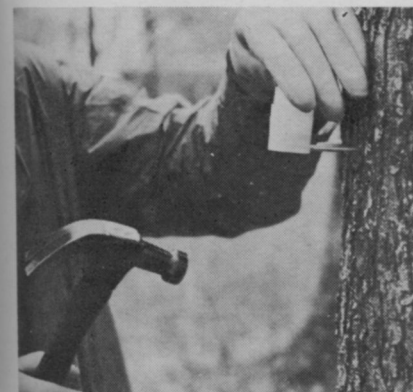
7. Applicator, properly dressed, compresses Mauget injector containing Bidrin. Note gloves.



8. Gentle tapping of hammer inserts container onto aluminum tube, bottom side upward.



9. Container is turned in upright position beginning Bidrin flow into tree's system.



10. Container of Bidrin remains in upright position until tree has absorbed insecticide.



11. Aluminum tubes are removed from tree with pliers; disposal requires precautions.



12. Holes made in tree are sprayed with water and alcohol after tubes are removed.