



Picture of MAGCS Caucus Meeting in Cleveland

Pesticide Injected In Tree, Kills Carriers Of Dutch Elm Disease

Shell Oil Says Beetle Slaying Bidrin Will be Sold Only to Experts, Isn't a Disease Cure

By a Wall Street Journal Staff Reporter

NEW YORK — Shell Chemical Co. introduced a pesticide that is injected into the base of a tree, something like a human getting a vaccination, to kill the beetles at the top of the tree carrying Dutch elm disease.

The company, a division of Shell Oil Co., said it received a license to distribute the pesticide, called Bidrin, from the U.S. Agriculture Department last month. Bidrin won't be sold to the general public, however, because it is an organic phosphate pesticide and the company considers it too toxic to be used by other than experts.

Sumner H. McAllister, general manager of the agricultural chemicals division, estimated the cost of the chemical at \$2 to \$4 a tree. He said Shell will sell it to cities in large quantities for from 12 cents to 20 cents a capsule.

Robert A. Bartlett, president of Bartlett Expert Tree Co. of Stamford, Conn., at a news conference announcing the pesticide, estimated it would cost a homeowner \$20 to \$40, including labor costs, to have each tree inoculated with Bidrin, about the same cost, he said, as spraying with DDT.

Shell has been working on Bidrin for seven years, Mr. McAllister said. It has been selling another form of the chemical for about three years for spray use against pests that attack early spring cotton. Bidrin is being made in a plant in Los Angeles, Mr. McAllister said, at the daily rate of 60,000 capsules that are about the size of a large thimble.

Dutch elm disease, which attacks the American, or white elm, is caused by a fungus growth that a small insect called the bark beetle carries on its feet. The

fungus settles under the tree bark and creates a gummy substance, which clogs the tree vein system, preventing travel of nutrients. Once the infection starts, the only cure is to cut away the diseased tree sections.

Shell emphasized that Bidrin isn't a cure but is a way of killing the beetle. In most cases now, this is done by spraying with DDT, but this has the disadvantage of spreading DDT into the air and on the surrounding ground.

Bidrin lasts in the tree only about 30 days, but the peculiarity of the disease is that it only infects a tree for a brief period of about 20 days during the early spring. Thus, only one treatment a year is needed.

In one test last year in Milwaukee, described by Dale Norris of the University of Wisconsin, 11,472 trees were inoculated with Bidrin and only 1.4% were lost. In a test of 3,300 trees treated in the conventional manner, about 4.3% were lost.

Mr. Norris and Hugh E. Thompson of Kansas State University demonstrated the use of Bidrin on a foot-diameter elm log. A needle-like shaft of aluminum first is driven into the tree just beyond the bark level, then a capsule under pressure is attached to the shaft and is burst so the Bidrin flows into the tree. This procedure is repeated around the girth of the tree every five inches.

The Bidrin works its way to the top of the tree, where most of the bark beetles feed. When the beetle bites a leaf or twig, it ingests the pesticide and dies almost instantly. Like other organic phosphates, the pesticide affects the insect's nervous system.

Shell said it is unlikely the disease ever could be wiped out because of the large stands of infected elm present in wooded, unsettled areas.

Golf Course Specifications

The Golf Course Superintendents Association of America presented a Proposed Outline of specifications for the construction and maintenance of golf courses. The original work was started by the late L. E. "Red" Lambert and then the committee was headed by the able George L. Lanphear. The outline can be used very satisfactorily in preparing the original layout of a course. If this report is used as a check list it will eliminate many mistakes and help to prevent omissions. This outline can be found in the minutes of the 1964 Annual Meeting.

While at Purdue we were handed a list of Standards set up by the "Sprinkler Irrigation Association" which is called Installation Minimum Standards. This set of specifications if added to the work done by our Association would supplement it very well.

The National Golf Foundation also has some materials available for the asking which would prove to be of great value to anyone interested in the construction of a new course.* The United States Golf Association also has some material available in regards to record keeping, green construction and several other sets of recommendations.

* Suggested Equipment List For Maintenance of 9 and 18 Hole Golf Courses.