

UPDATE: UTILITY RIGHTS OF WAY LITTLE HAS CHANGED SINCE 1972

Special Report by the editors of WEEDS TREES & TURF

In 1972, WEEDS TREES & TURF published the opinions of three individuals concerning utility rights-of-way clearance and maintenance; an ecologist, a member of the National Audubon Society, and the superintendent of operations for a utility company. Six years later, we find the market even more polarized than in 1972.

Increased public concern about utility prices has added to the confusion and still no single, objective organization has studied the situation and made recommendations for the most practical and safest combination of methods to provide vegetation control for utility rights-of-way.

Utility companies have had to make their own decisions as to practicality. When you are talking \$66,000 for a single brush cutter or \$90,000 for a bulldozer, it is extremely important to have the best, most scientific data from which to judge. That type of information doesn't seem to exist. Utilities are at the mercy of chemical and equipment sales people.

Manufacturers of mechanical devices and environmental groups voice suspicions that chemicals are overused on utility rights-of-way. Chemical manufacturers question the practicality and cost of complete mechanical control. Both sides stress costs to the utility and that utilities are under the gun to hold costs down.

Environmentalists recognize the benefit to wildlife from the "edge effect" created by the more than 50 million acres of rights-of-way in the United States, but at the same time fear, often blindly, the residual effects of herbicides. A recent RPAR against 2,4,5-T, a chemical tainted by stories of massive kill-off in Viet Nam forests, indicates that these fear groups can be powerful.

Dioxin, a product created in the manufacturing process of 2,4,5-T, is very toxic, but in what quantities? In order to substantiate adverse levels, measurements must be made in parts per trillion. Laboratory methods already used in trying to substantiate these levels are in question because of the minute measurements necessary. The cost to the chemical companies must ultimately be passed on to the consumer, who passes it to the utilities, who passes it to the public.

It is doubtful that rights-of-way can be totally maintained mechanically. Chemicals are necessary in areas where machinery cannot maneuver. Evidence of root sprouting supports the need for spot use of chemicals. However, the public disapproves of total kill chemical application after all they have heard.

With these points in mind, one would think the most acceptable combination of rights-of-way control is mechanical clearance initially, followed by spot chemical applications to stumps, and maintenance on a regular basis, either mechanically, or with selective chemical applications.

Past experience with the Environmental Protection Agency would indicate pressure from environmental groups is not to be ignored. Anticipating a similar response by EPA to rights of way vegetation control, the industry would do well to adjust now and avoid expensive confrontations with EPA.

As in 1972, we publish the opinions of three individuals involved in rights-of-way management from different viewpoints. Each person makes pertinent points for consideration by utility companies. In 1972, Gordon Mundrane, then operations superintendent for New Jersey Power and Light Co. said, "The art of right-of-way maintenance is retreating." Since then we have seen little improvement.

The Ecologist

Frank Egler has been an ecologist since 1947. He has written over 80 articles and a book on right-of-way management. "Plight of the Right-of-Way Domain" is a two-volume work with the second volume documenting the first.

"I would consider the situation bad for the slogan that I have long used: The lowest cost for the most years with the highest environmental value," says Dr. Egler. "On those grounds I see very little, if any, improvement."

"The situation has become highly polarized, according to Dr. Egler. "In the first case, I would say that there are very few basic scientists in this field, the field of right-of-way vegetation management. And some of those who are, are employed by industry and some of them are excellent examples of converted 'biostitutes'.

"Then the basic science itself leaves much to be desired. The field of plant ecology and the field of vegetation management go back through 60 years of problems.

"Thirdly, there are pro-herbicide groups that are applying it as a technology. Most of their trouble is because of aerial uses of herbicides. They do not consider, or consider very inadequately, selective spot application.

"Fourthly, there are the anti-all herbicides groups, which are fretting about human health. I admit that there are hazards and accidents, so are there on the highways. Even as Rachael Carson pointed out in "Silent Spring", it's not that these things should be banned, but that they should be used wisely. I might finally say that they are not being used intelligently. In short, we need wise use of them yet for long term vegetation management.

"The story is a sad social problem. The anti-all herbicide people I run into belong to the organizations that should be helping. I'm thinking of two

leading organizations that are taking the human health anti-all herbicides approach that I feel is the equivalent of banning drugs from hospitals. I've worked in a lot of them, I'm for them, but they don't have the scientific basis they should."

The Chemical Manufacturer

Wayne Wright is a Product Technical Specialist with Dow Chemical Company.

"It is generally true that chemical applications, especially in the East and Northeast coast area, are becoming more and more selective. It's well-established that selective treatment is the cheapest and most effective way to go, rather than using herbicides indiscriminately.

"Normally, a broadcast treatment over the entire rights-of-way is needed only once to establish an initial clearing. What everyone is trying to do is to put the rights-of-way on a maintenance type program, where you only go in and spot treat as needed.

"The initial clearing is becoming of more and more interest. After the initial clearing, they'll go in, cut the tree down, and stump treat it. Then what you need is one broadcast spray in two to three years. After that, you've basically established grasses, forbes and low growing desirable brush and shrubs.

Then all you do is selectively treat, either with injection or a basic treatment of some type. And you treat only the undesirable ones that will cause problems. You do that every two, four or five years, just depending on the lot.

"One of the problems with just mowing the rights of way is root sprouting. Most trees will do this. You end up getting anywhere from two to ten stems coming out of every stem that you cut off. Then, if you go in and try to control those chemicals you have the problem of a massive root system that is feeding all these small individual stems. You just cannot get enough chemical into that root system to kill it. You can burn it off or kill it to ground level, but it will just resprout again.

"A lot of the managers that I know will treat areas and then plant grass to establish a plant community that will crowd out and compete with undesirable brush that grows in.

Bramble and Burns, at Purdue University, did a lot of work with this. It shows, basically, that with broadcast treatment, and then selective treatments a community of low growing grasses, forbes and desirable low growing shrubs become established. The wildlife use of these areas has increased several fold over what it is in any of the surrounding area.

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A questionable point about total mechanical rights of way clearance and maintenance is that machines cannot stop root sprouting (above).





The Equipment Manufacturer

William J. Mahoney III is the manager of the Special Products Division of Kershaw Manufacturing Company in Montgomery, Alabama.

"Basically, as the legislatures in various states become more involved in the environment, which is obvious from their record of the last five years, chemical spraying and any type of burning are simply going to be outlawed. That leaves two alternatives: clearing by hand or clearing by mechanical means.

"Clearing by hand is exorbitantly expensive and the chain saw and the bush axe don't fit the hand quite as easily today as they did a decade ago. I am confident that the future is for mechanical brush cutting.

"Right-of-way maintenance programs set up by the public utilities and the electric cooperatives, which are very large in the south, have risen to an outrageous cost where hand labor is extensively used. A tractor with a rotary mower following it can't negotiate much of the terrain and leaves it up to hand crews to get in any damp areas or very hilly terrain.

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"We're seeing more and more use of large four-wheel-drive brush cutters because they can penetrate areas a tractor cannot. One of these self-contained units can take the place of a multitude of tractors pulling rotary mowers — which obviously means fewer operators and less machinery to maintain.

"We can see the need for spraying in deep swamps and other surfaces that you can't get into with machinery. There are areas that you have to resort to those means which are becoming less and less popular with the public.

Utilities often run into budget problems. And one of the first things to go, according to Mahoney, is the right-of-way maintenance program. "Particularly when it is in relatively good shape," he adds. "From there what happens, obviously, is that the right-of-way gets out of control. And once the trees grow close to the power line, all it takes is an ice storm or high winds to cause a power outage. All of a sudden the budget is quickly rearranged.

"Where before they could utilize farm-type equipment and occasional hand crews, they now have an average of three to four inch diameter growth, or more — too much to cut with a mower. They get into a situation where they have no choice. They simply have to go to a self-contained mechanical brush cutting machine that's designed to cut it. The only other alternative is paying the high price of cutting it by hand.

"We say we cut anything up to eight inches in diameter, which would certainly take care of 95 percent of anybody's right-of-way. Our machine cuts a tree and mulches it in one operation. The result is far better and is more efficient because it leaves a biodegradable mulch which holds moisture and retards erosion."

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