



Target: Railroad Weeds

EDITOR'S NOTE: There appears to be a growing interest in railroads, and it isn't necessarily just among the locomotive buffs. Weed control firms are showing greater awareness of this market, despite the fact that it is highly specialized both in equipment and expertise. Any one of a number of factors may be responsible. The fact remains that railroad weed control has come into the spotlight. The following article is presented to shed more information into this aspect of the Green Industry.

By RICHARD W. FIELDS
Industrial Veg. Control Manager
Velsicol Chemical Corporation

GETTING your foot in the door is perhaps the main hurdle for contract vegetation control along railroads. You have to know the right people. Vegetation control along railroads is also complicated, demanding specialized sales and equipment.

Here are some of the basics involved:

The herbicide programs are controlled at railroad headquarters, with program development and im-

plementation from the district level. Chemicals are purchased and contracts with applicators are on a yearly bid basis.

The track is sprayed with bareground and weed control chemicals on a swath sometimes 8 feet wide, but usually 20 to 24 feet wide. Usually, a combination of bareground and weed control chemicals is sprayed 8 feet across. Beyond that, the weed control chemical alone is used for "chemical weed mowing."

Enough chemical is used to control most species, especially noxious weeds, and to take down the high weeds alongside the track. Without chemical weed mowing, the view is obstructed and men don't have room to work around the track. Without the bareground material on the track bed, vegetation interferes with equipment, there is risk of fire, and water does not drain off ballast rapidly.

Brush control alongside the tracks is another operation, separate from chemical weed mowing. The greatest need is for removing brush interfering with communication and signal lines. Other needs are for greater visibility at grade crossings and curves, safety for personnel beside track sections and elimination

of the potential for great forests developing alongside track sections.

The total market for weed and brush control along railroads is quite large. Railroad rights-of-way encompass something like 3 million acres in the U.S. But budgets allowed for vegetation control are limited, and so in any given year, only about 20 percent of the total acreage is treated.

Application used to be only by spray trains which apply 300 gallons of solution per acre on up. Now, on-off track vehicles (called Hy-rail) trucks, which can be driven on both highways and rails, are replacing the older spray equipment. The on-off track vehicles are low-volume application, somewhere in the neighborhood of 25 to 30 gallons per acre, and are more economical, efficient and result in fewer claim damages.

Drift control is very important for railroads, with methods including Amchem's Directa-spray and Velsicol's Accutrol spray system. With the Accutrol system, large droplets of air emulsion and the solution tends to stick together. But this system, along with most of the others, should be considered as a means to decrease the hazards of normal applications, not a means to apply herbicides in



Chemical weed mowing is not designed to completely eliminate the weeds, but to knock them down and suppress them. Wild rose control with Banvel along the ballast eliminates equipment interference, lessens fire hazards and allows water to drain off rapidly.

any wind conditions.

For example, we treat the Accutrol spray system as we would conventional water systems. When the wind is over 10 mph, we want it shut off. What we're saying is in winds up to 10 mph, Accutrol does a much safer job.

Usually, 2,4-D or 2,4,5-T is used in combination with MSMA for chemical weed mowing, although the newer trend is to combine the D's and T's with a herbicide such as Banvel, which gives season-long control of perennial weeds such as bindweed, Russian thistle, kochia, and Canadian thistle.

Chemical weed mowing is not designed to completely eliminate the weeds, but to knock them down and suppress them. It would be easy enough to completely control the weeds by using, let's say, 3 gallons of Banvel 720 per acre, but because of budget limitations, only ½ gallon is applied per acre. There is no point in total perennial weed control anyway because you still have to turn around and spray the next year for the annual weeds.

Brush control is one area that gives railroad vegetation control managers a lot of trouble because it tends to be disorganized.

Too often, spraying for brush is a hit or miss affair. Typically, railroads spend several hundred thousand dollars on brush control on the

basis of hearsay or "I think so," without knowing really what their problems are, how much brush they have, or what chemicals to put where.

Spraying brush is too costly and time consuming for it not to be done well. Developing a plan is hard work. While it may sound difficult to plan ahead of time the monumental task of controlling brush along thousands of miles of track, a railroad will be money ahead by spending it where it is needed the most.

The objectives of both the railroad and the contractor need to be written down. Management needs facts. Objectives could be species of brush to be killed; percentage of root kill expected; how long a single treatment should last, and how many years between treatments.

Perhaps we can put it in terms of the three "E's"—Examining, Execution, and Evaluation.

EXAMINATION

The contractor and railroad can cooperate in the evaluation phase. For one railroad, recently a list of brush treatment areas were given

(continued on page 48)

Spray trains effectively cover greater distances than off-track vehicles with application rates as high as 300 gallons of solution per acre.





The on-off the track vehicle applies about 25 to 30 gallons per acre. In addition to being more economical than spray trains, they are more efficient and result in fewer claim damages.

TARGET: RR WEEDS

(from page 37)

to the contractors and suppliers. We then went to the regions and began surveying every mile of track to determine the amount of brush acres, species of brush present, and the areas of greatest danger.

By using a form to record the information needed, we set a priority on the lines that needed chemical application first, and the sections of the right-of-way that needed treatment. Physical requirements, such as distance of communication lines from the track were also recorded. Sometimes there are certain equipment requirements. Normally 50 to 60 feet can be reached effectively by on-off track vehicles. Greater distances may require a spray train. Another factor to consider is the time of application. Both early sum-

mer and late fall are good times to spray. In heavy agricultural crop areas where drift may be of unusual concern, perhaps it would be wise to spray in early fall.

This information can be discussed with regional personnel and then assigned priorities for lines to be treated. The information can then be carried to the railroad vegetation manager, who then can assemble the program. He has the information needed to figure the cost of treatment for each line and how much chemical is needed for each line. He can be assured that his decisions are based on facts or actual conditions as felt to be required by the regional managers.

Perhaps not all lines surveyed will be treated, but whoever is in charge of vegetation control for the railroad can be assured that the

lines treated are in need and that the dollars spent are spent wisely due to programming and planning.

EXECUTION

Now the execution phase begins. The contract is let and work begins. The railroad field personnel and the applicator should be provided with a printed program detailing the amount of solution to be applied in a given area and which locations are to be treated. The application should be properly recorded. These records not only verify the work done, but give the necessary records for future evaluations.

EVALUATION

The only way to discern whether the railroad has got its money's worth is to evaluate the application. The evaluation phase can begin by evaluating coverage 4 to 6 weeks after application. The evaluations should be continued into the *second and third years* after treatment so that the applicator and the railroad vegetation control manager know the longevity of control.

Surveying the lines and evaluating are two of the main services a contractor performs for the railroads. The contractor also should be a resource for technical knowledge needed. What label clearance does the product have? Can another product do the same job? Can the product be used safely around water? How long does the product affect the soil? Should any claim for damage arise, is there enough research information to defend the use of the product in a court of law? Can the use of the product be justified in relation to the results obtained versus the potential problems in use? Should the product drift from the target area, what damages can be expected?

A contractor needs to be thoroughly qualified. By "thoroughly qualified," I mean he should know the Federal and state laws which regulate the use of herbicides. The state laws vary from state to state. Knowing these laws can eliminate mistakes which not only cost money but bring about unwanted publicity.

He should know the herbicides available for use, their efficacy, the degree of safety offered, the extent of their economic advantages and what effects can they have on the environment with their continued use year after year.

He should help the railroad set policy as to types of application, timing, and help determine results obtained as to weed control as well as their safe and proper use. □



Milkweeds along the rights-of-way are controlled with 2,4-D or 2,4,5-T in combination with MSMA. Although the new trend is to combine the D's and T's with a herbicide which gives season-long control of many perennial weeds.