Survey Shows Contractors Get Nearly Half of Railway Weed Control Jobs

Dormant cane broadcast is a relatively new process which makes it possible for applicators to kill undesirable growth during the winter season when vegetation is not growing. This crew is testing Diamond Alkali's Dacamine for winter treatment.

AMERICA'S profit-hungry railroads, whose frugal search for cost-cutting practices is legendary, are currently waging a nip-and-tuck battle between red ink and black.

Faced with ever-diminishing profits, it's small wonder that most railways are currently taking a close look at weed and brush control expenses along the nation's far-flung rights-of-way.

Weedkilling and brush control have long been a railroader's headache, even when profits were abundant. Before the advent of chemical controls, costly hand mowing took a sizable chunk out of every maintenance supervisor's budget, which had to be accounted for by whittling other services, or by settling for less-than-desirable weed and brush conditions.

Why are the railways so concerned about rampant vegetation? Obviously, safety and visibility are of prime concern. Weeds and brush obscure the engineer's view, hide lights and other warning signs, and have even been known to scuttle automatic switches.

Apart from these crucial aspects, though, are the actual expenses of maintaining track and roadbed. Good weed and brush control has been shown to be instrumental in reducing frequency of track resurfacing. Even reballasting has been less a problem in areas where effective vegetation management has been realized.

What does all this mean to the contract applicator? It means a great deal of lucrative business. *Weeds and Turf* has just completed a nationwide survey of weed control practices on American railways with over 100 miles of track. Our researchers found that a whopping 60% of these rail companies use contract applicators for some part of their vegetation control program.

More significantly, we found that of all the work actually performed (by all railways with more than 100 miles of track) 47% is contracted to professional applicating firms. Some of these CAs are large, multibranch companies, such as "tree expert" corporations. Others are medium-sized operations with localized clientele. Others are small operators whose participation in track spraying may be limited to local yards and sidings.

There are even a few firms which specialize almost solely in railroads.

Why are so many railroads turning to contractors for this important facet of maintenance? There are several reasons. Commonly cited in the past were the facts that CAs can more effectively program a continuous control plan (railway crews are often tied up with other projects, or may be called from a job by dozens of unexpected emergencies). Working under yearly contracts, these applicators can be on the job when needed and can realize maximum efficiency and use of time.

CAs, too, already have specialized equipment. Sprayers, pumps, booms, wands, nozzles, drums, and the countless accoutrements a sprayman numbers among his everyday tools, are not always easy to come by in the average railroad shop.

Same is true of personnel. Com-

panies whose sole business is application of weed and brush killing chemicals have on hand skilled, capable men who devote all their working hours to a single practice.

But two additional factors are becoming increasingly important. First, our survey revealed that the average cost per mile for vegetation control by contractors is substantially lower than the cost per mile of jobs carried out by the railroad crews. Table 1 gives an analysis of these costs. Average expense per mile for contracted control work is $59. It costs the railroads $89 per mile to do the same thing!

These figures are based on detailed data furnished the *Weeds and Turf* research staff by 53 railroads (questionnaires were mailed to over 200 carriers).

A second, and much newer reason for turning to contractors, is the furor over use of pesticides which recently has erupted into the nation's favorite topic at town forums, legislative sessions, even cocktail parties. When the public is leary of any kind of chemical pesticide, many progressive railroaders realize it is best to hire a skilled, licensed, educated professional to handle these controversial chemicals. And of course, CAs have adequate insurance coverage which they've been able to procure because of their safety records and hard-won skill with toxic compounds.

All the above points are good sales ammunition for the CA who wants to train his guns on this enormous market and opportunity for expansion of services.

What Railway Jobs Entail

What does railway rights-of-way spraying involve? One service, with which CAs are of course familiar, is soil sterilization of roadbeds and areas around switches, fences, warning lights, etc. Chemicals used are essentially the same ones CAs are already stocking for their industrial plant weed control jobs and for highway work (see *W&T*, Jan. '63, p. W-10). This is a very big slice of the railroads' requirements.

Another important activity is nonselective, post-emergence weed control which attempts to kill weeds and brush alongside roadbeds. Sometimes a selective herbicide is used so that objectionable growth is destroyed, but enough ground cover remains to prevent dangerous erosion and landslides.

In many sections along the miles of track, brush control is of primary concern, especially in isolated areas where encroaching plants may actually interfere with the operation of trains.

A more recent concept is dormant application, in which chemicals are applied during the "dead" season when plants are not growing. This method effects control for the coming growing season.

Some CAs may be active in only one of these techniques, while others include all services in their sales dossier.

What Equipment Is Needed?

Variety of vegetation control practices, obviously, determines the kind of equipment contract applicators need. For roadbed sterilization, special sprayers and booms mounted on railway cars are frequently employed. For off-track areas, these same spray rigs can be adapted to project a stream of chemical along the right-of-way with extreme accuracy. These machines are expensive, and usually are found among the larger, more diversified spray operators.

Recently the advent of the helicopter and the small, maneuverable spray plane have simplified and speeded up broadscale weed and brush control campaigns.

Standard spray rigs, such as a CA may be using on highway jobs, can be made portable, and can be mounted on flat-bed cars for specialized contracts.

In yards, sidings, and other limited areas, the back-mounted knapsack-type sprayer is frequently put to work. This gives the sprayman extreme flexibility, and is especially useful for touch-up jobs, or very small contracts.

Whatever the machine employed, it is apparent that equipment is basically the same in principle as spray applicators CAs have been using for a long time. This familiarity with equipment is another reason so many contractors are successful in railroad work.

Just how does the railway weed control market line up? Results of the *W&T* survey show that the average American railroad

Table 1. Analysis of Railway Weed and Brush Control Practices in the United States.

Miles of track and rights-of-way treated	1,463
Treatments per year	1+*
Percentage of total work performed by contractors	47%
Percentage of railways which use CAs to some degree	60%
Cost per mile for work done by railway crews	$89/mi.
Cost per mile for work done by contractors	$59/mi.
Average yearly amount spent by railways on chemicals	$100,000.00**
Average yearly amount spent by railways on equipment	$3,167.00***

* In southern and humid states, there may be 2 to 4 treatments annually.

** Does not include chemicals purchased by contract applicators.

***Does not include equipment purchased by the contract applicator.

This report based on a survey by *Weeds and Turf* researchers, who mailed questionnaires to over 200 railroads. 53 replied.

treats 1,463 miles of track (and its adjacent right-of-way) every year. Reports ranged from a road that treats 7,500 miles yearly, to some which spray under 100 miles. Most railroads have their track treated at least once a year.

As indicated earlier, 60% of the companies which reported their practices to *W&T* use contractors to some degree. Range of use was from 10% of total program to 100%. When these figures were averaged out with other available data, it was shown that nearly half (47%) of *all* the railway weed and brush control in the United States is performed by the contract applicator.

Table 1 gives an analysis of the facts which *W&T* researchers garnered. This information will be useful to sales managers who wish to analyze the market, either with an eye to increasing a company's share, or to entering the field for the first time.

Move Cautiously . . .

Whatever the position of any individual weed control company, it pays to enter this market for the first time with extreme care. Large-scale jobs require costly equipment. Many operators already possess such rigs, or at best have simple adaptations to perform. However, if getting a job means buying a complete new outfit,

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Nursery, Ornamental Jobs

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bagworms are causing the damage. Any training program for servicemen must teach the ornamentals as well as the pests. Actually, knowing the host is usually the easiest way of knowing the pest. Each ornamental species has a collection of a dozen or so common diseases, insect and mite pests, and other problems. Thus, knowing the host makes simple the task of determining the problem, be it animal pest, disease, mechanical, or physiological.

Spraymen must sell the idea of an inspection-and-treatment service on a contract basis to be able to really make a go of the ornamental pest control business. Operators must also have contracts with a considerable number of ornamental owners with similar problems. Then one can afford experts on ornamental pest control as servicemen, can establish routes for treating particular pests at the correct season, and can make best use of time and equipment.

Railway Weed Control

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analyze all factors in the contract before accepting it. (Maybe the rig can be leased.) This is big business, but it can bring big headaches as well as big profits!

Railroads have been known to engage CAs to apply materials using the railway's own equipment. If such an opportunity presents itself, it's a good way to get experience.

Local yard and siding jobs offer another relatively safe means to edge into the market. Less chemicals, smaller equipment, and fewer men are necessary for these projects; consequently there is less risk (of course, there's also less profit).

Since so much of this large-scale business is let out on bid, it behooves every operator to have bull's-eye accuracy in cost analysis. A very low bid might get the contract, but fail to show any monetary gains.

Astute CAs who want some railroad business must also familiarize themselves with the labyrinthine purchasing procedures the railways use. America's freight handlers grew into industrial giants long before "systems analysis" and "efficiency experts" came around, and sometimes the old methods still persist.

In short, there is no doubt that CAs are presently making money spraying weeds along thousands of miles of tracks. Since contractors account for nearly half the total weed and brush control done each year, opportunities for profit and service abound. But as with any industrial enterprise of such magnitude, the business must be approached carefully, after great analysis and preparation.

Geigy Has Diazinon Bulletin

A new, 24-page technical bulletin on the uses of diazinon is now available from Geigy Agricultural Chemicals, P.O. Box 430, Yonkers, N.Y.

Included in the guide are toxicology listings, registration charts, tabulations of experiments, and directions and specifications for each of the diazinon formulations Geigy is now producing.

CAs may obtain a free copy of the brochure, titled "Diazinon Technical Bulletin No. 63-1," simply by writing the manufacturer.