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odorless and won't stain steel, concrete, etc. ■ It's just adding a weed or brush control technician to your staff when you do business with AMCHEM. Your AMCHEM/MAN can answer your most difficult control problems. ■ Remember, AMCHEM is a pioneer in scientific weed and brush control—originators of 2,4-D and 2,4,5-T herbicides. Find out all the facts about the money and work saving AMCHEM Weed and Brush

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# WEEDS and TURF

March 1964

Volume 3, No. 3

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WEEDS AND TURF is the national monthly magazine of urban/industrial vegetation maintenance, including turf management, weed and brush control, and tree care. Readers include "contract applicators," arborists, nurserymen, and supervisory personnel with highway departments, railways, utilities, golf courses, and similar areas where vegetation must be enhanced or controlled. While the editors welcome contributions by qualified freelance writers, unsolicited manuscripts, unaccompanied by stamped, self-addressed envelopes, cannot be returned.

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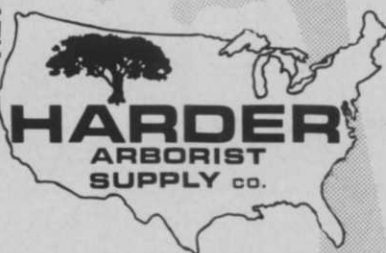
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## The Fallacy of Corporate Costs

ONE of our readers, a contract applicator for railways and utilities, was complaining recently that some of his potential customers (particularly railways) do not take all cost factors into consideration when deciding whether or not to have weed and brush control performed by contractors, or by a company-employed crew.

"Many times," our correspondent elaborated, "a railway maintenance-of-way official will look at the quote which contractors supply (a quote that constitutes the *total* costs of the operation), only to compare this figure with how much the chemicals cost if the railway does the work.

Obviously this will form the basis for an unrealistic comparison. Even if the cost of paying crewmen their hourly wages is added, the comparison is still inaccurate. Why?

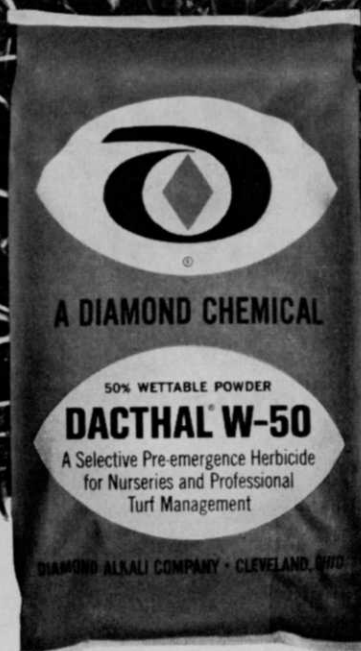
When a contractor offers to perform weed and brush control for a fixed rate per mile (or acre, or however he computes the task), the cost includes (1) expenditures for chemicals; (2) expense of labor; (3) depreciation of equipment; (4) costs incurred when re-treatment is necessary. This last facet is particularly important, since most CAs guarantee their work.

If a rights-of-way maintenance supervisor is to compare costs intelligently, he must take these same factors into consideration when computing how much it will cost him to do the job himself. This means the cost of paying (and *training*) the crew including the times workmen are kept around when they may not be really needed, must be incorporated. Add to this the dollars spent for chemicals, the amount needed to cover use of equipment, and the "repeat" factor. The "repeat" possibility since the job, if it goes wrong, is now the responsibility of the company, not a contractor, so the cost of re-treating is therefore borne by the company performing its own work.

We've written before about the complexities of cost accounting, but this aspect is particularly intricate. While we're not trying to convince railways or utilities (or anybody else) that they should or should not hire a contractor, we do advocate, in the interest of good business management, that all cost factors be considered when one is trying to decide which weed and brush control program to choose: the self-performed job, or the contracted one. These decisions frequently involve a great deal of money, so the fallacy of corporate costs, the failure to consider all expenses which may be a part of the vegetation control program, can result in ill-advised decisions, and perhaps in a loss of money. In an age of profit-presures, it becomes doubly important for management to be fully aware of all the costs.


In the event a company is unfamiliar with how such costs can be accurately determined, or if a supervisor is unsure about the possibilities of job failures, we're certain reputable contractors, as well as chemical suppliers, will be happy to help in the judgement of possible influences on costs which are likely to arise in a particular job.

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## — W & T Mailbox —

### Update on Terminology

You are certainly to be congratulated on your article "Biology and Identification of Aquatic Weeds." The figures are the best collection of aquatic weed pictures that I have seen.

Your "Guide to Suppliers of Weed and Turf Chemicals" (October '63) should be a very useful feature for your subscribers. Since you make the very com-

mendable effort to distinguish between common names of herbicides and trademarked names, I am sorry to see so many names which are actually common names marked with an asterisk as trademarks.

In connection with a long-standing discussion in our own publication, I am disappointed to see the forms, "pre-emergent" and "post-emergent" used in your influential publication. The form "pre-emergence" was recommended by the Terminology

Committee of the North Central Weed Control Conference as early as 1947, and was used almost continually until just recently when there has been a sudden outbreak of "pre-emergent."

I am enclosing a reprint of the Report of the Terminology Committee of the Weed Society of America which establishes the common names of weeds for this country.

C. J. Willard

Editor  
Weeds  
Columbus, Ohio

*We appreciate Dr. Willard's criticisms and comments, and shall make every effort to refine the techniques used in compiling our Supplier's Guide so it contains no inaccuracies. We are also adopting the official Weed Society of America Terminology as the final authority in our verification of spellings, so that there will be a language common to the entire industry. Ed.*

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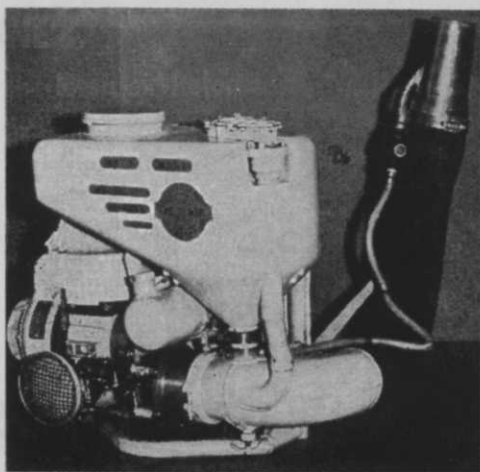
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### Weed Box Helps

I would like to tell you how much I enjoy reading and using the information you publish in *Weeds and Turf*. . . It has been many years since I was exposed to weed identification, consequently I am not familiar with all the weeds we encounter other than the more common ones. Your "Know Your Species" weed cut and control recommendation feature is especially helpful to me even though I have several manuals and books on weed identification.

Holly Mitchell

Landscape Engineer  
State of Alabama Highway Dept.  
Montgomery

*This comment is typical of scores of letters from readers who find the series helpful. We'd like to thank, once again, USDA official Dr. Dayton L. Klingman for his agency's help in preparing these weed boxes. Ed.*

*Weeds and Turf welcomes expressions of opinions from its readers. Send ideas and comments briefly as possible to Charles D. Webb, Editor, Weeds and Turf, 1900 Euclid Ave., Cleveland, Ohio, 44115.*

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## Making Sense About Crabgrass

By DR. W. H. DANIEL

Turf Specialist, Department of Agronomy  
Purdue University, Lafayette, Indiana



**R**EADERS of *Weeds and Turf* appreciate the fact that several chemicals are offered for reducing the competition of crabgrass and other annual grassy weeds. Although the "No Crabgrass" millenium is still far away, well-managed areas may be kept free of this weed. This article at-

tempts to characterize and summarize current technology and to aid the reader in developing his program.

The annual infestation of vigorously growing grasses, particularly crabgrass, has for years stymied the homeowner's enthusiasm for improved lawn techniques. Within recent periods, in fact since 1956, the threat of uncontrolled crabgrass has been outdated, because of the availability of nine different basic chemicals in at least 50 formulations. These products are marketed almost nationally so that consumers can choose locally the product they prefer.

The important thing about the above is that this has opened the door to the purse and mind of lawnowners and turf managers so that concepts of producing good turf, free of unwanted competition, now can predominate. For this reason the fundamentals of crabgrass control appeal particularly to readers of *Weeds and Turf*.

First, a modest review of crabgrass itself. Fundamentally its germination is most limited by temperature. Second, its germination is limited by moisture since it germinates primarily only at the surface of the soil. Often the rise in air and soil temperatures during early and midspring is accompanied by wet, humid periods sufficient to produce a dense covering of crabgrass seedlings. Counts of 50 per square inch are modest, and these can occur even in good, dense turf.

The real problem, therefore, in adequate crabgrass prevention is to provide toxic concentrations of a chemical in the surface and in the available soil moisture, so that whenever germination occurs, susceptible crabgrass seedlings are affected by these toxic concentrations and selectively killed. Now, the above sentence shows the importance of total materials used, and time of application.

From the standpoint of the material, this involves the solubility, relative availability, longevity of toxicity, ease of movement with water, type of carrier,

and other factors. In rate of application is involved the dilution, uniformity of application, the tenacity of holding onto the carrier, the ease of solubility, and the ability of the material to release the available fraction at toxic concentrations.

Timing is important since prudent scheduling can permit lighter rates of variable solubility materials. For example, calcium arsonate needs to be used right at the critical time because of its ease of solubility. As another example, calcium propyl arsonate moves in the soil solution readily. It can affect seedlings 1" from the point of application, but most materials would not affect seedlings even 1/4" from point of application.

### Good Management Pays Off

Over the years much has been said about the techniques (and tedium) of good management to provide adequate vigor and survival of the desired grass. The 2" mowing of bluegrass, at least twice-a-year fertilization, the careful timing of weed removal, the avoiding of surface disturbance—all of these things attempt to assure bluegrass and fescue survival. However, under many conditions these are not adequate to keep out crabgrass germination, nor spot survival. Fortunately the 50 seedlings per square inch of crabgrass often deteriorate, or die completely if one has the right combination of competition and dry soil surfaces.

### Using Crabgrass Preventers

For turf managers the pre-emergence control of crabgrass opens the door for a better management of turf areas. The consumer without "the blessings" of crabgrass infestation and its masking, quickly finds out how good a turf producer he may be, since many lawns actually need some crabgrass to be considered even summertime lawns. The plagues of fairy-ring, leafspot, foot-rot, brown-patch, drouth, grubs, sodwebworm, plant wear, desiccation, and other ills that may cause browning of turf now assume major proportions in the turf manager's view. It is true that