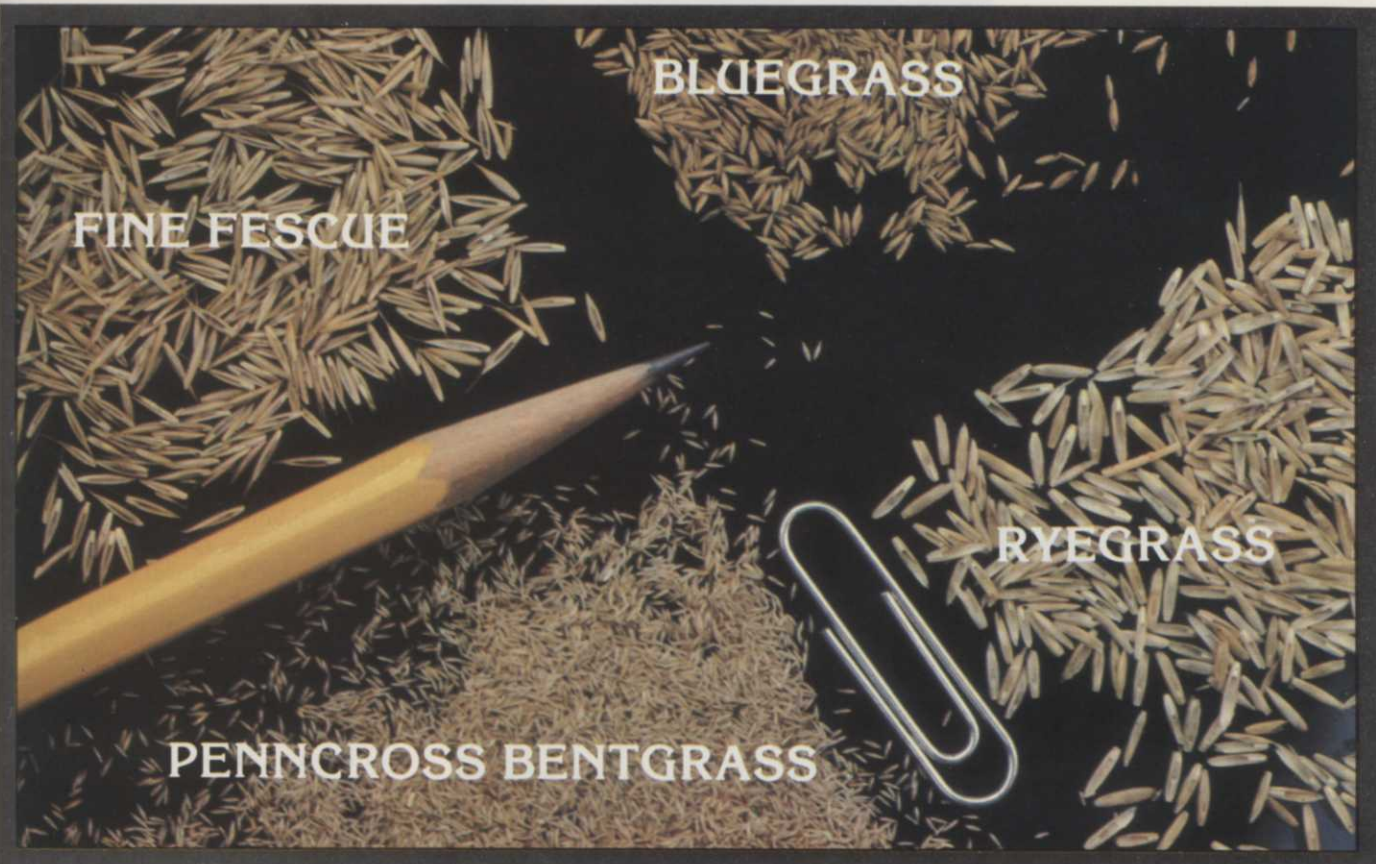


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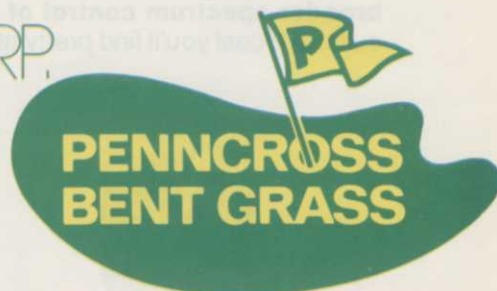


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John Zessau



Century City

But with winds in some areas gusting to 60 miles per hour, this hardly seemed logical. "So," said Zessau, "what we've done in these areas is to switch from overhead to drip irrigation systems. Slow release hoses that run along the ground emit just enough water for the plants' needs," he said. "Being a ground level watering device negates the wind's effects."

Century City's overall landscape design incorporates countless varieties of flowers, bedding plants, shrubbery, lawns, and trees. Wind is obviously a factor dictating what plants go where. Zessau pointed out, however, there are many other factors involved. Shading patterns must be considered. In such an intensive architectural environment, some areas are shaded nearly all the time by one structure or another. Plants adaptable to very little sunlight must be utilized once shading patterns are established. Another factor is location. Some landscape areas are not easily accessible, so plant variety has been chosen accordingly. In these difficult-to-reach areas hardy plants are planted, which require little attention.

Labor savers

As development continues in Century City and landscaping needs increase along with it, Zessau says he has been able to keep his work force at a minimum through the judicious use of fertilizers and chemicals. He says, "judicious", because when spraying insecticides, for example, he backs up his decision to spray with a recorded schedule of plant checking and insect observation. "Many people still think you should spray on a calendar basis. So when aphid season comes along they spray. I don't agree; I only spray when I know there's a heavy infestation." He also knows, however, that failure to treat for aphids or thrips when necessary can require expensive replacement of plants.

The two chemicals that Zessau claims are absolute necessities in his operation are growth retardants and herbicides. "They're the real labor savers." With ivy, for example, he can get away with much less pruning than is normally required through the use of an effective growth



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Continues on page 75

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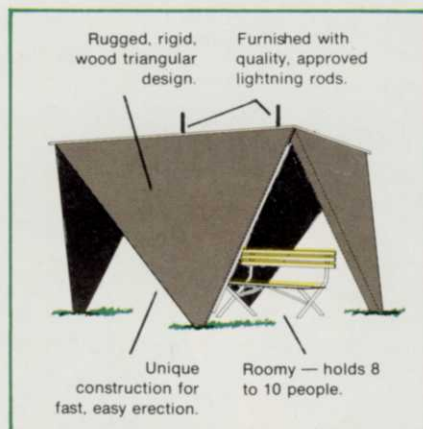
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Jim is the Greens Superintendent at Losantiville Country Club, Cincinnati, where bermudagrass had become a serious problem on the 18th fairway. To control it, Jim applied Roundup once—while the weeds were still actively growing—right at the start of the Labor Day weekend.

"That's really 'prime time' here," Jim told us. "But after we applied Roundup, we kept the fairway in play the whole weekend, and after. The members played right over it, with no problem."

Since Roundup has no residual soil activity, and won't wash or leach out of treated areas to injure desirable plants, Jim simply took normal precautions against spray drift—and didn't worry about damaging desirable vegetation along the fairway.

Even better, he was able to re-seed right into the dying bermudagrass only 7 days after applying Roundup—without loss of playing time or inconvenience to the membership.

Reinfestation won't be a big problem for Jim, either. He knows that Roundup destroyed the rhizomes of the treated weeds, helping prevent their regrowth.

Jim thinks he'll use Roundup again this year—and apparently some club members hope so, too. "As soon as they saw how good this fairway looks, some of the members started asking when I'm going to do the same for #10, where we have some more bermuda. I'll probably tackle that with Roundup this fall."

If controlling many tough emerged weeds and grasses is a problem for you, see your local Monsanto representative or chemical dealer soon for your supply of Roundup.

Roundup. It worked for Jim Siegfried. It can work for you.

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Century City

retardant. "Instead of having to prune mountains of ivy every month we can reduce the number of prunings by a third," he said.

Because such a good horticultural environment is created for plants in Century City, weeds also flourish. Besides heavily infested plant beds, Zessau is constantly plagued with weed growth in expansion joints, where the asphalt on the streets meets the curb, at the divisions and cracks in sidewalks, and so on. "We use Round-up herbicide on a regular basis to kill these existing weeds," he related. "In our annual beds, however, we like to use a pre-emergence herbicide to hold weed populations down over long periods. We've been most impressed with Devrinol (Stauffer Chem. Co.) herbicide because it keeps weeds back for so long in our beds. It keeps them clean for the whole season. We've also had a lot of trouble with weeds growing in the ivy," he continued. "When we have to renovate (cut back) the ivy, sunlight gets in and promotes weed growth. What we've done is spray devrinol down through the ivy after renovation. We've also been able to save water here, because we don't have that heavy thatch in the ivy to absorb all that moisture."

In Zessau's comprehensive fertilizer program he begins by categorizing the various landscape beds in the development. He explained, "We categorize the different planters by location and accessibility. In the hard-to-get-to areas we apply a slow-release type of fertilizer, while the easily

Continues on page 87



Turf area on edge of complex.



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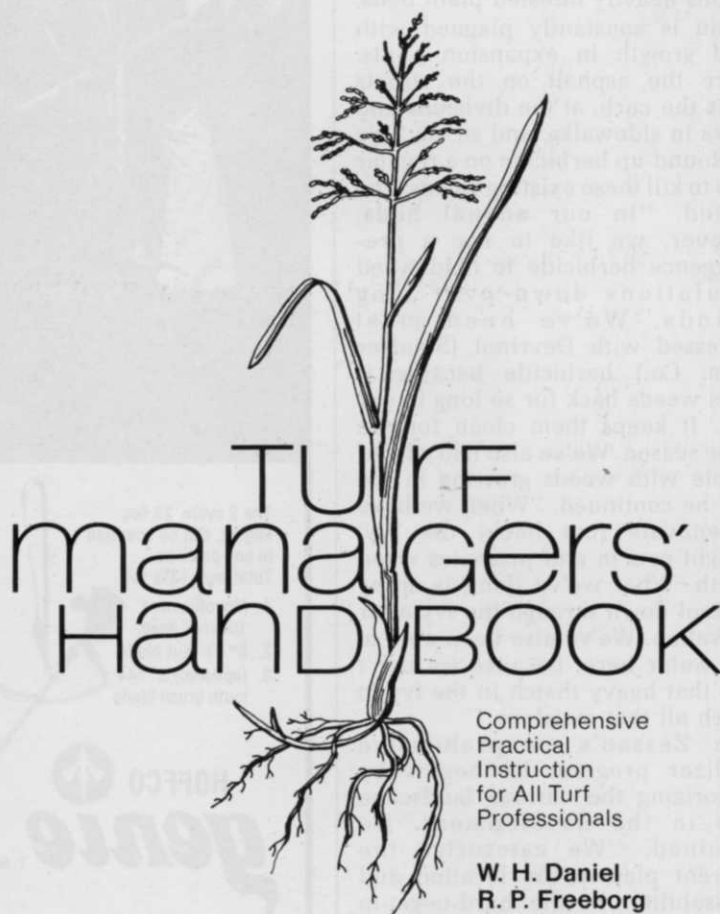
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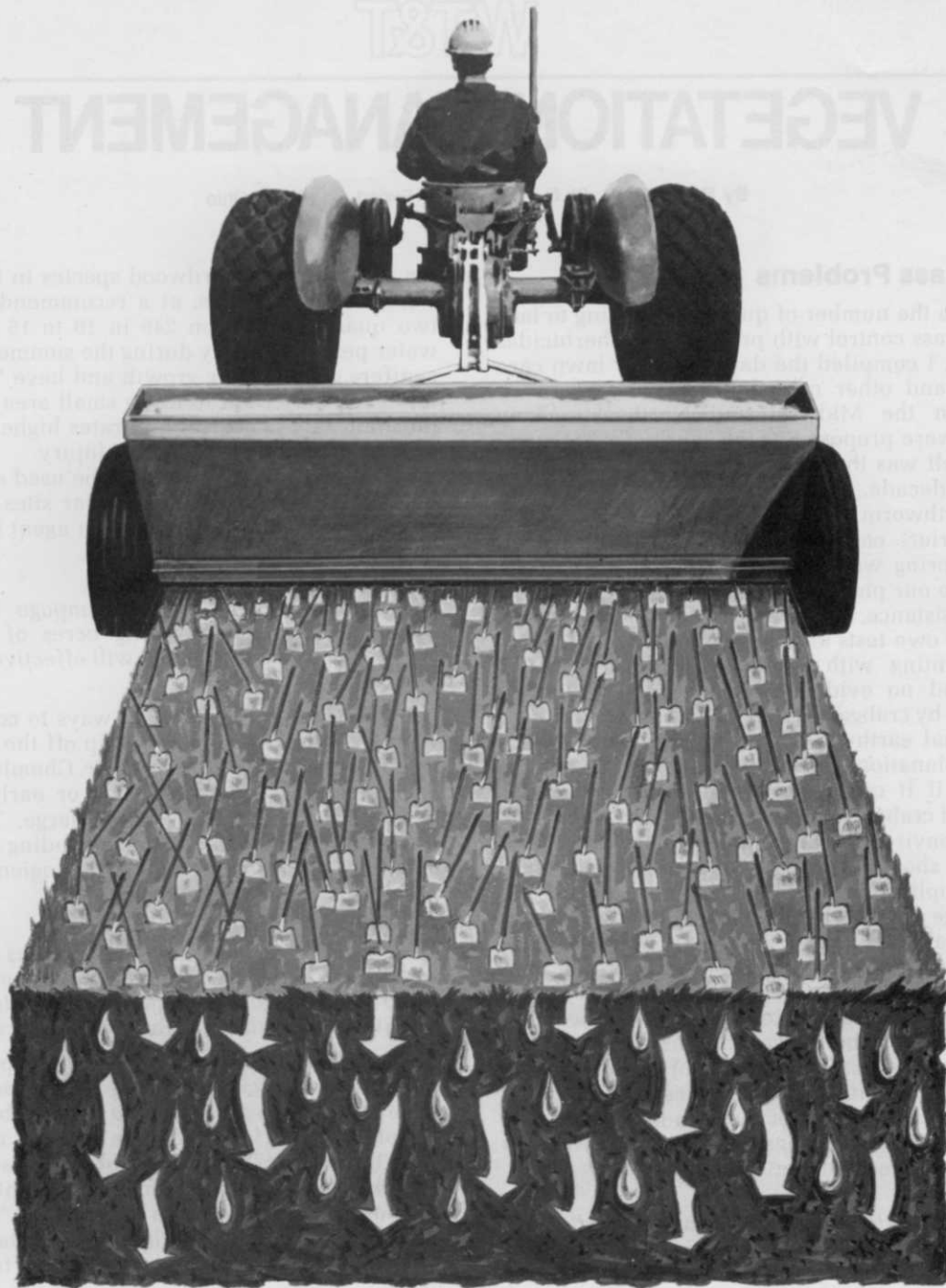
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VEGETATION MANAGEMENT

By Roger Funk, Ph.D., Davey Tree Expert Co., Kent, Ohio

Crabgrass Problems

Due to the number of questions relating to lack of crabgrass control with pre-emergent herbicides last year, I compiled the data from our lawn care division and other contributing lawn care companies in the Midwest and Northeast. Many reasons were proposed as the cause of what many people felt was the worst infestation of crabgrass within a decade. Among the suggestions were unusual earthworm activity that disrupted the herbicide barrier, early crabgrass germination even though spring was delayed (an 18-day delay according to our phenological data), developing herbicide resistance, and late germinating crabgrass.

In our own tests and those of other researchers experimenting with pre-emergent herbicides, I could find no evidence of increased herbicide tolerance by crabgrass seedlings.

Unusual earthworm activity may be a reasonable explanation in localized areas, but it is doubtful if it could explain the widespread incidence of crabgrass reported to me last year.

If the environment were the primary causal factor, there should be some consistency relating the time of application with the degree of control. The percentage of lawns reportedly with unsatisfactory crabgrass control was more or less constant throughout an application period from March 24 to May 10.

In short, I could not find sufficient evidence to support any of the suggestions as the probable cause of an increased incidence of crabgrass. It is quite possible that other companies will find — as we did — that when all of the data is accumulated and analyzed, the crabgrass infestation was not nearly as severe as earlier suspected.

Q: *To what extent has used crankcase oil been utilized to sterilize soil under gravel beds (in lieu of utilizing plastic — fiberglass mats — herbicides) — are there any known problems?*

A: If you are referring to the use of crankcase oil for weed control in landscape plantings, we have not attempted this and could find no references. I would suspect that if the oil is concentrated enough to control weeds, it would also cause injury to ornamentals, particularly those that are shallow rooted.

If you are referring to oil in gravel beds without ornamentals, it should be successful. Crankcase oil has been used in gravel driveways for total plant control.

Q: *I have a tree plantation of 3-8' pine and spruce trees. Brush (poplar, willow, etc.) has grown to the same height among these trees. Can you recommend a selective herbicide that will kill the brush but not harm the pine and spruce trees?*

A: Esteron 245, a formulation of 2,4,5-T, is labeled

for the control of hardwood species in forest conifers, including pines, at a recommended rate of two quarts of Esteron 245 in 10 to 15 gallons of water per acre. Apply during the summer after the conifers cease spring growth and have "hardened off." You may want to test a small area as the application rate is critical and rates higher than two quarts/acre may cause conifer injury.

2,4,5-T formulations cannot be used around the home, recreation areas or similar sites. Read the label and consult your extension agent for recommendations to fit local conditions.

Q: *Bagworms went on the rampage in certain regions last year, devouring acres of greenery. What are the chemicals that will effectively control this pest?*

A: One of the most effective ways to control bagworms on small shrubs is to clip off the bags from infested plants during the winter. Chemical control is most effective in the spring or early summer before the larvae become too large. There are many effective chemicals, including carbaryl, diazinon, acephate or *Bacillus thuringiensis*, which provides a biological control.

Q: *I recently heard of a number of trees dying on a golf course built over an old land fill and understand that it is gas that is killing them. Is research relative to this subject being conducted currently?*

A: Dr. Franklin B. Flower, extension specialist in Environmental Science at Rutgers University, New Jersey, has been investigating species best suited for planting on land fills. He and his colleagues have travelled extensively in order to assist others in making on-site evaluation of the potential for gas vegetation growth problem on land fills. They have research plots on land fills and the data obtained will eventually show the best planting techniques to use.

Q: *After reading the article (October 1978) on fertilizing trees, I wonder what liquid N-P-K and/or micronutrient fertilizer solutions are available. I use a high pressure piston 10-gpm, 110-gallon tank sprayer for spraying trees and lawns. I also use an injector probe made from 1/2-inch steel electrical pipe to inject fertilizer into the soil. What fertilizers are available to avoid minimal wear on my sprayer?*

A: Liquid, soluble fertilizers cause less abrasive injury than liquid suspension fertilizers to pumps and spray equipment, which is your primary concern. However, suspension fertilizers are less corrosive to metals, have a lower "burn" potential on plant roots and have a longer residual in the soil.

Continues on page 83

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