



# MENTALS, YOU MAY NOTE A DISTURBING TREND.

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protection chemicals supplier today.

at all times often results in serious problems and should be avoided," warns Manuel. "Extreme stress is placed on the turf, and jeopardizes its survival, especially during periods of difficult weather." Usual tactics for fast greens include mower maintenance and adjustment, plus manipulation of other cultural practices such as fertilization, irrigation, verti-cutting and rolling, which Manuel says has come back into vogue.

Manuel advises that, if super-fast greens are mandated at a course, the crew must make every effort possible to control or minimize other stress factors, any one

of which is a challenge:

- ✓ the effect of trees: shade, root competition and poor air circulation;
- ✓ moisture stress due to poor irrigation system;
- ✓ heavy traffic from both mowers and golfers;
- ✓ insect/weed/disease control;
- ✓ poor drainage or irrigation; and
- ✓ soil compaction.

A recent USGA green speed study revealed:

- Each change in nitrogen levels per 1000 sq. ft. annually created an inverse

speed change of three to five inches.

- Increased speeds of 8 to 10 inches were measured following daily mowings. Multiple daily mowing increased speeds up to 8 inches.

- Increase in speeds from double mowing was more significant on greens cut at 3/16 per quarter vs. 1/8 or 5/32.

- Weekly, light verticutting through the growing season increased speeds by an average of 7 inches.

- You can gain up to 6 inches with a single roll, and up to nine inches with double rolling.

## Early application reduces incidences of lyme disease

■ Results of a nearly completed one-year field research study conducted by New York Medical College indicate that a single application of insecticide in early summer can reduce the risk of lyme disease by 70 percent to 90 percent.

Homeowners in Westchester and Fairfield counties have been directed to spray their lawns with insecticide in mid-June if they want to substantially reduce the risk of contracting lyme disease,

according to researchers at the college's Lyme Disease Center.

Three insecticides were tested and proven effective. The most effective, cyfluthrin, is not yet approved for lawn application in New York. Insecticides carbaryl and chlorpyrifos are, however, available. These insecticides were found equally reliable in liquid and granular formulations. The researchers emphasize that users should follow directions for the use

of these insecticides at the rates recommended for lawn insect control.

"We know from our earlier studies that there are infected ticks on 60 percent of the residential properties we examined in Westchester County," says Dr. Durland Fish, director of the college's center.

"Since alternatives to spraying are either ineffective or unavailable, the prudent course of action is to apply lawn insecticides," he adds.

Results of the study showed that the use of insecticide-treated cotton did not measurably reduce the number of ticks or the proportion of infected ticks at any of the residential, recreational and woodland study sites.

## Fabrics shown to minimize weeds

■ Landscape fabrics, though generally unable to suppress all weed species, can greatly reduce the need for hand or chemical weeding, according to tests conducted at Auburn University.

In the first trial, the five fabrics tested were Dewitt Weed Barrier, Geoscape Landscape Fabric, Amoco Rit-a-weed, Phillips Fiber Duon 2.5 ounce and Easy Gardner Weedblock.

The Dewitt product was the only woven fabric.

The Geoscape, Amoco and Phillips products were mesh, while the Easy Gardner product was perforated polyethylene.

In the second trial, American Woven Fabrics Weed Barrier Mat, DuPont Tyvar 307 and Tyvar 312 were added. The only woven fabric was the American Woven product.

Results of the two experiments, below, were first published in the *Journal of Environmental Horticulture* by the Horticultural Research Institute.

### EXPERIMENT 1: Number of seedlings after 30 days

Weed	Dewitt	Geosc.	Amoco	Phillips	EasyGard.	Control
yellow nutsedge	1.3	0.3	2.5	1.3	3.8	11.8
bermuda-grass	0.0	7.0	11.3	13.8	92.3	126.1
johnson-grass	0.8	1.7	7.5	8.0	5.3	21.0
pigweed	0.0	0.0	5.3	12.5	111.7	139.0
sicklepod	0.0	0.0	0.0	0.0	0.0	33.3
morning glory	0.0	0.0	0.0	0.0	0.0	15.5

### EXPERIMENT 2: Number of seedlings after 30 days

Weed	Dewitt	Geosc.	Amoco	Ph'lips	E.Gard.	Amer.	307	312	Cont.
y. nut.	1.0	0.8	2.5	3.3	1.8	0.3	0.0	0.0	8.3
berm.	0.5	0.0	8.3	7.8	20.3	0.0	0.0	0.3	48.8
j'son.	1.5	9.3	17.5	12.0	72.6	0.0	2.5	0.8	112.8

# "Any Rancher Who Whines About Stringing Fence Ought To Try A Few Miles Of 115 Kv Powerline."

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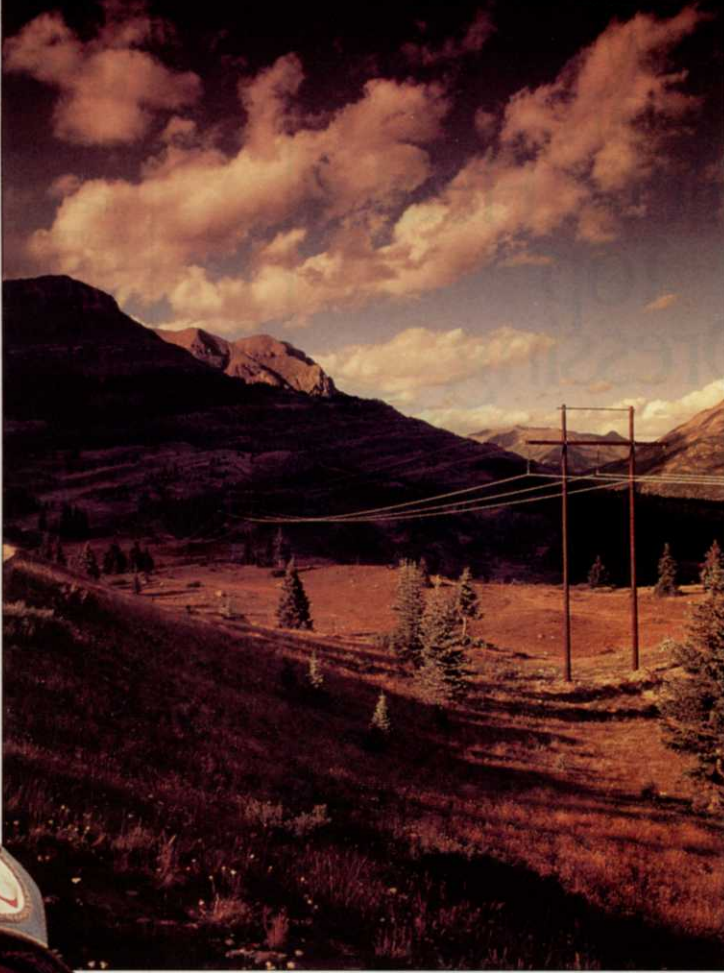
The job called for heavy work at elevations that could bust your lungs, over terrain that could break a truck's back. Then going in again to erase any sign you'd been there. No sweat.

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"We went back up and pulled the deadwood, replanted, and erased the trail. If you see those poles at all, you'll think they grew there."



on horseback or on foot," foreman Mike Williams says. "A Polaris gets you in, hauls your gear, does the job, gets you out. Good machines."

Like every Polaris, Mike's machines have automatic transmission, full floorboards and one-hand braking. Now he's looking into a new Polaris Big Boss: all-terrain vehicles with 850-pound tiltbed, load rack and tow hitch, six-wheel stability, and four-wheel or six-wheel drive. Handy features whether you're clearing brush at 12,000 feet or hauling equipment around a jobsite.

So what advice would Triple-L Construction offer other companies in need of strong, dependable help?

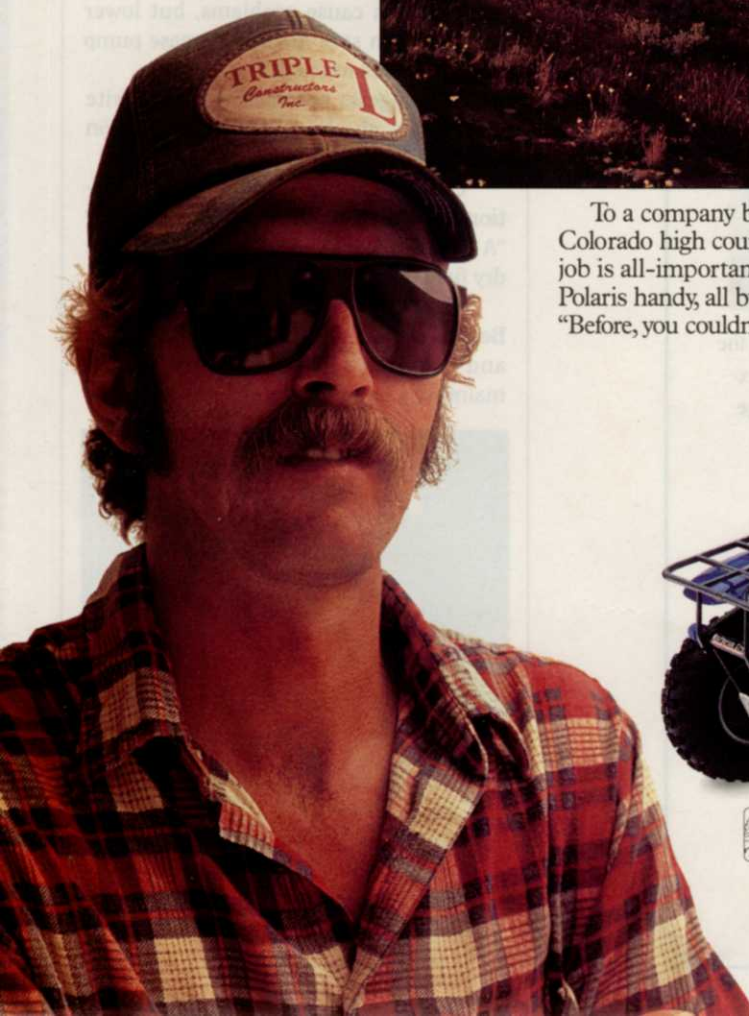
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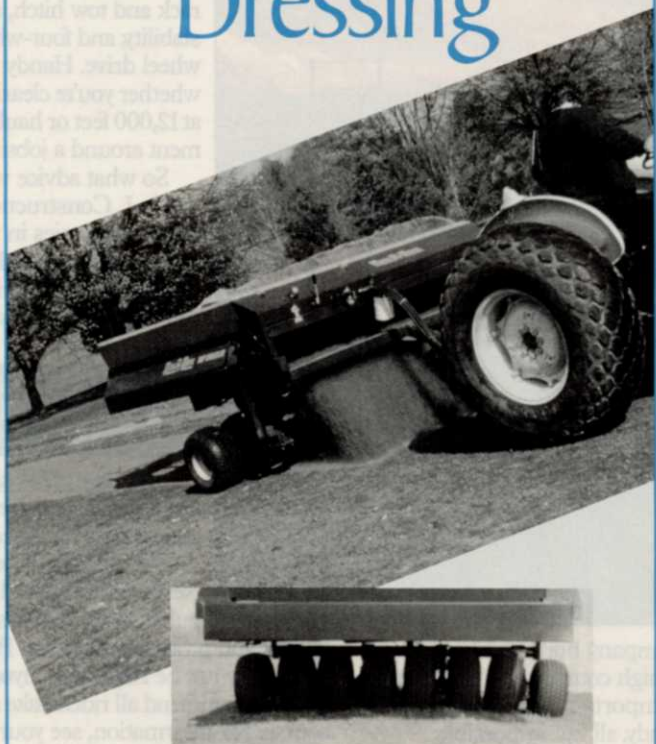
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## Irrigation should be uniform

■ Uniformity of coverage is the key to effective irrigation, according to Rain Bird Irrigation's Lynda Wightman.

"No irrigation factor can be more efficiently utilized than uniformity of coverage," she told the Sports Turf Managers Association recently.



Lynda Wightman

Application rates also play a big role in irrigation efficiency, she notes. "If you don't know your application rate in inches per hour, you can't efficiently manage irrigation," Wightman says.

Two considerations that should take high priority are soil type and water pressure. "Pressure is the biggest variable for an existing system," she says. "Higher pressure can cause problems, but lower pressures can save money, increase pump life and reduce misting."

She suggests conducting a visual site inspections, checking out the installation height of heads and leaks.

"Cut back water until further reductions would stress the turf," she stresses. "A wet field tears up much quicker than a dry field."

"There's no magic," insists Neal Beeson of BC Turf. "It's a lot of hard work and common sense—and you'd better maintain a sense of humor."

## Irrigation traps

- Sally Prusia of Rain Bird lists seven traps in irrigation system design:
  - 1) Do not stretch the dollars.
  - 2) Know the area and type of coverage needed.
  - 3) Choose the right equipment.
  - 4) Specify available watering time.
  - 5) Don't forget the pump plant.
  - 6) Take into account design considerations.
  - 7) Insist on a quality installation.

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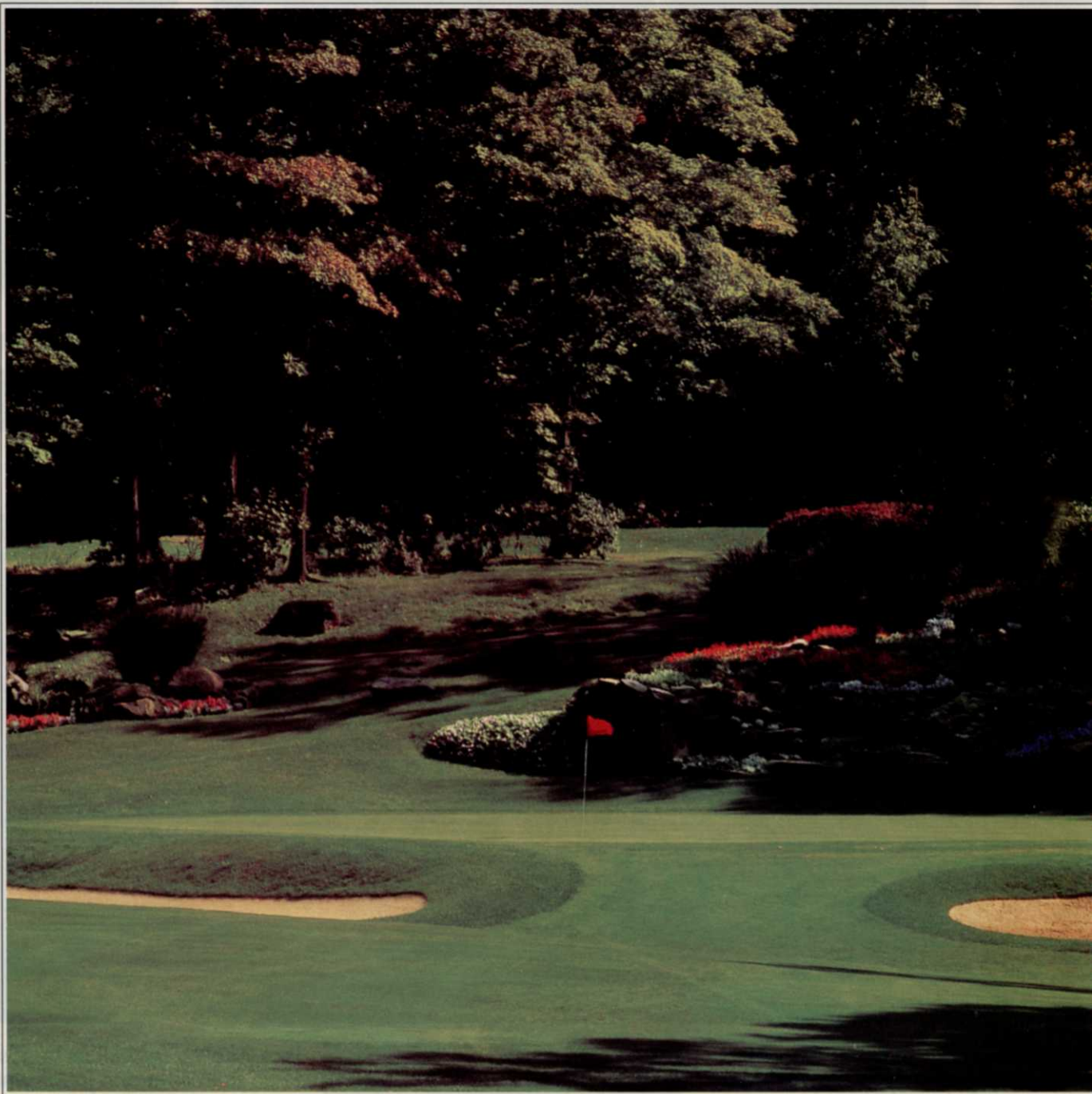
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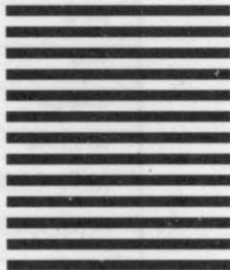
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## Post-emergence weed control in cool-season grasses

**For best results, control product applications must be made during the targeted plant's most susceptible growth stage.**

by Prasanta C. Bhowmik, Ph.D.  
Univ. of Massachusetts

■ Weed control helps make any golf course or landscape management program successful. Effective weed control is achieved by integrating cultural and chemical weed control methods.

Producing a dense, healthy stand of turfgrass is one way to control annual weeds. Proper mowing height and frequency, fertilization, and irrigation are parts of the management program that should be practiced throughout the growing season.

It is important to understand weed control principles, to make economical and environmentally sound decisions. At the same time, however, these decisions must produce good results. Turf managers should be familiar with the following steps for a successful weed control program:

- 1) knowing the specific problem (i.e. grassy weeds vs. broadleaf weeds);
- 2) knowing the life cycle of the weeds (annual vs. perennial); and
- 3) selecting the most effective herbicide.

**Grassy weed control**—Among annual grassy weeds, crabgrass and goosegrass are considered to be the most troublesome in turf, and are usually controlled with a pre-emergence herbicide program along with a

good cultural program.

Post-emergence control of annual grassy weeds is becoming popular because of integrated pest management programs which use scouting information on weed species and their abundance. Several products are available for post-emergence control on cool-season turfgrass (Table 1).

**Broadleaf weed control**—A successful post-emergence weed control program results from selecting the right herbicide and applying it uniformly over the foliage at an appropriate dosage. The herbicide selection depends on the weeds to be controlled and the turfgrass to be treated. Choose the most effective herbicide with

maximum safety to the turfgrass. The list of currently-available post-emergence broadleaf herbicides has not changed appreciably from last year (Table 2).



Dr. Bhowmik

Most hard-to-control weeds such as wild violet, wood-sorrel and ground ivy are perennials. Perennials have extensive root systems. For effective control, these root systems must be killed. In order for a herbicide to be effective, it must enter the plant and move through it. Some weed species absorb herbicides rapidly, while others absorb slowly.

The primary route of entry of post-

Table 1

### POST-EMERGENCE GRASS AND SEDGE CONTROL

Common name	Trade name	Manufacturer	Comments
DSMA	DSMA liquid	Riverdale	Controls crabgrass and nutsedge. Repeat applications are needed for nutsedge control. Discoloration may occur in fescue and bentgrass.
	DSMA liquid	Drexel	
	Methar 30	W.A. Cleary	
	Broadside, DSMA 81%	Vertac	
MSMA	Daconate 6	Fermenta	Controls crabgrass, nutsedge. Repeat applications needed for nutsedge control.
	Drexar 530	Drexel	
	MSMA 6.6	Drexel	
Fenoxaprop	Acclaim	Hoechst-Roussel	Can be tank-mixed with residual pre-emergence herbicides and post-emergence broadleaf herbicides.
Bentazon	Basagran	BASF	Controls only sedges. Repeat applications are necessary.
Dithiopyr	Dimension	Monsanto	Can be tank-mixed with MSMA or Acclaim. Apply to crabgrass with three tillers or less. Can be applied with fluid fertilizer or other registered pesticides.

Source: Dr. Bhowmik

### ELSEWHERE

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