



This entire area was seeded with bluegrass and crabgrass. The left-hand side was sprayed with TUPERSAN the same day it was seeded. Note crabgrass on the right (untreated area) and the absence of crabgrass in the treated area.



The same areas thirty days after seeding and treating. TUPERSAN made the difference. Note crabgrass growth in the untreated area at right and how TUPERSAN controlled crabgrass in the treated area at the left.

# Tupersan<sup>®</sup> crabgrass killer

Siduron Weed Killer

## permits seeding & treating the same day (COOL-SEASON GRASSES)

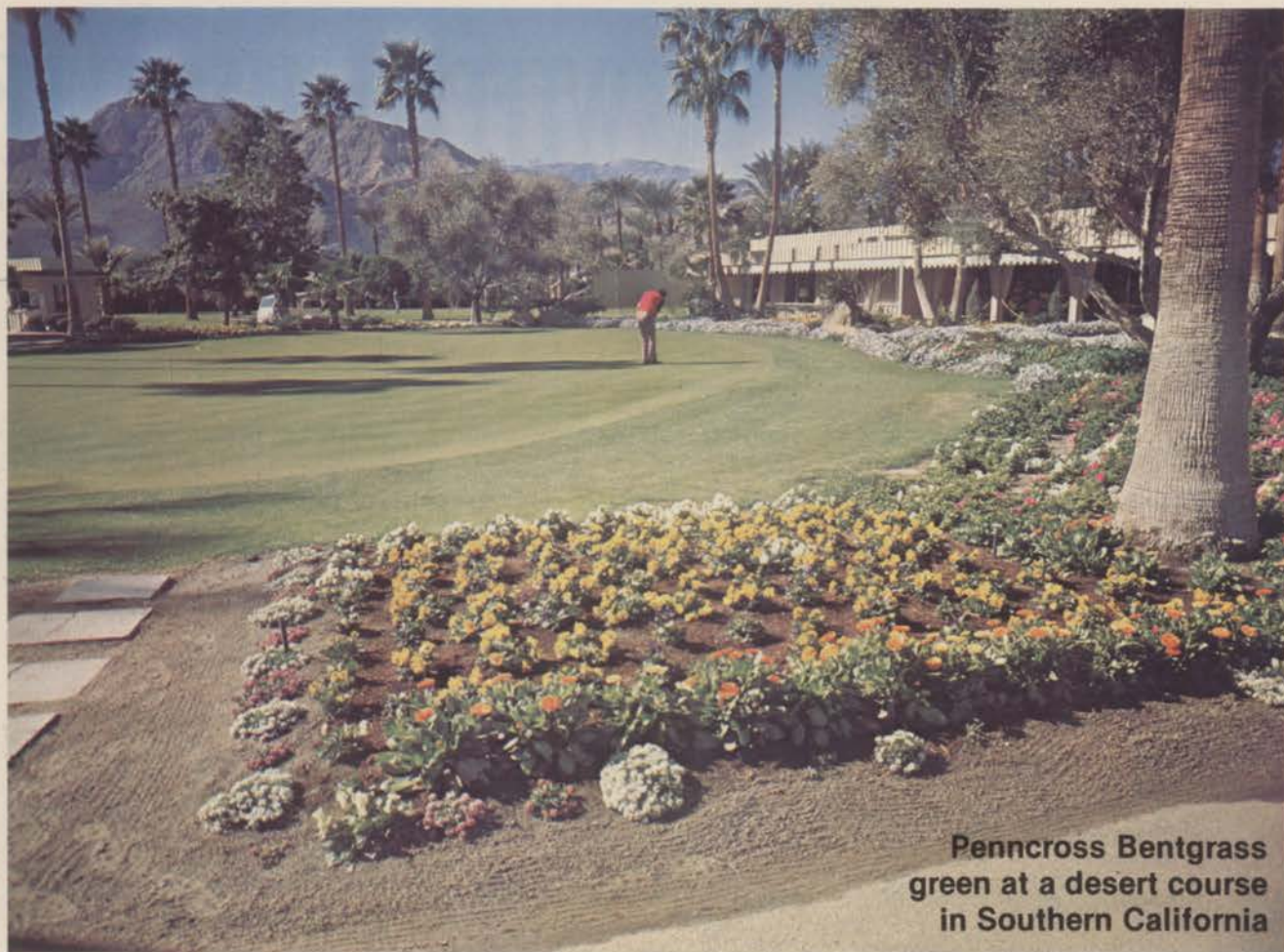
Du Pont TUPERSAN is a unique, highly selective, pre-emergence weed killer for the control of crabgrass (smooth and hairy) and certain other annual weed grasses in turf. TUPERSAN offers a high degree of safety to turf. It can be used on newly seeded areas without causing injury to germinating seeds of cool-season grasses. It can also be used safely on established turf.

You can seed and treat the same day with TUPERSAN. It prevents crabgrass—but lets the desirable grass grow. For full information on TUPERSAN, consult your golf course supplier—your service agency.

*With any chemical, follow labeling instructions and warnings carefully.*



# When the HEAT'S on



Penncross Bentgrass  
green at a desert course  
in Southern California

## **PENNCROSS** can take it CREEPING BENTGRASS

### THE PROOF IS IN THE PUTTING

- Today's most popular, widely adapted variety
- More genetically uniform and poa-free seed
- Germinates fast, establishes quicker, thicker
- Superbly consistent, less grain for true putts
- Greens up earlier, hold summer color better
- Stays alive longer in fall—year 'round in South
- Most winterhardy, disease-resistant bent available.

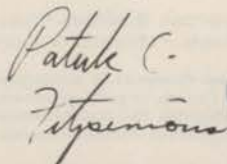
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**PENNCROSS  
BENT GRASS**

"Penncross Greens  
putt true & their  
even texture  
gives me  
confidence  
in putting."



*Pat Fitzsimons*



Pat Fitzsimons tied  
the world record score  
of 58 on a 6,000 yard course and  
is now a touring professional.

# WEEDS TREES & TURF

February 1975, Vol. 14, No. 2

**12 The ABC's of Railroad Weed Control** — Don Johnston, Union Pacific Railroad, leads us through basic problems encountered in chemical weed maintenance in the 13 western states.

**16 Solving the Drift Problem** — Keeping spray materials confined to target areas has been a problem plaguing highway rights-of-way maintenance crews since their conception. New chemical additives are taking some of the risks out of spraying and extending spray periods by several weeks.

**18 Prairie Grasses, The Vista Makers** — Imagine a beautiful roadside that doesn't need mowing — green concrete? No, but native grasses are making a nostalgic comeback and achieving measurable success as alternative roadside plantings.

**22 Give Him Wheels, But** — Individual transportation for workers suffered in popularity because of the high cost factor. But the use of low-cost utility vehicles may increase worker productivity and provide an inexpensive means of transporting worker and equipment from job site to job site.

**42 Sewage Sludge Composting: From Waste to Resource** — Researchers at the Agricultural Research Service Laboratory in Maryland are finding that natural, biological decomposition of sewage sludge can overcome many of the problems communities face with sewage disposal.

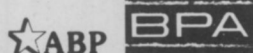
**48 Nutsedge, Aquatic Herbicide Research Results** — New research into some of the problems associated with the commercial sod industry as presented by Drs. Turgeon and Hiltbran, professors at the University of Illinois, before the North Central Weed Control Conference.

**56 Four Ways to Fight Inflation** — James A. Fischer of the Toro Company examines the present economic atmosphere and proposes a few solutions through more effective business management.

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**THE COVER** — Railroad personnel examine trackside vegetation control program. The foreground has been chemically treated and is virtually weed free. The background is an excellent example of noxious weed take-over.

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IBDU is different. Unlike other slow release fertilizers, IBDU has only a small percentage of immediately available nitrogen. You get an even, controlled growth instead of a rapid flush of growth.

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For up to 7 months IBDU gives you well-fed turf that's never overfed. It stays extra green without extra growth.

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WTT-2

Now that we have our feet well-planted into 1975 it might be a good time to take a look at what the next 10 months have in store for the Green Industry businessman.

While what many economic experts are predicting as the worst U.S. recession since the Depression is taking its toll among even the strongest businesses, inflation and unemployment are accumulating at either end of the economic spectrum.

The inflation rate climbed to a new peak of nearly 13 percent last quarter, closely following last year's agricultural failures and the preliminary price testing as price controls expired. Analysts predict the unemployment rate will hit 8 percent before topping out.

Experts continue to forecast business activity at its lowest ebb before spring and then picking-up considerably during the summer and fall months. Business should be back to near-normal and rising by 1976.

But what do we as Green Industry businessmen do in the meantime to lessen these effects? What appears to be the most


popular strategy is to cut back, sit tight and try to hold on to remaining accounts. That's no solution. We didn't get into this business because we were pessimists. We aren't successful because of defensive actions. And we certainly won't improve our lot by boning-up on the rules for tax treatment of losses.

Business is an opportunistic proposition. We have to continue the practices that made business successful and not sit on our heels waiting for the situation to ease.

James A. Fischer, director of marketing for the turf products of Toro, has an excellent article on this subject on page 56. He suggests becoming a better business manager by more efficient allocation of resource inputs for production of useful outputs.

Now our individual style and methods of management are uniquely our own, but the key is action — actively pursuing business as if business were going to continue on tomorrow. And it will. So why just react to the situation? Take control of the situation, replace that needed equipment, advertise your products or service and keep an optimistic outlook. REY

# THE WORK HORSE OF HERBICIDES



## CLEARY'S

### MCPP

For selective control of chickweed, knotweed and clover on Bentgrass greens and fairways, Bluegrass and Fescues.

### MCPP-2,4-D

Controls chickweed, knotweed, dock, dandelion, plantain, ragweed, purslane, pigweed, etc.

### METHAR 80

An extra high concentrate of Disodium Methane Arsonate Hexahydrate to control Dallisgrass and crabgrass. Completely water soluble.

### METHAR 30

A high concentrate liquid equivalent to 30% Disodium Methane Arsonate Hexahydrate. A super crabgrass killer.



### AMA PLUS 2,4-D

For the control of Dallisgrass, Silver Crabgrass, plantain, dandelion, knotweed, chickweed and other broadleaf weeds.

### AMA (SUPER METHAR)

Amine Methylarsonate, liquid for Crabgrass and Dallisgrass control.

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## But what if it doesn't rain?

Rainclouds. Beautiful. Unpredictable. And hardly ever there when you really need them.

And then there's Rain Bird. Rain Bird sprinkler heads, valves, controllers and accessories that are in the full-time business of supplying water — where and when you want it.

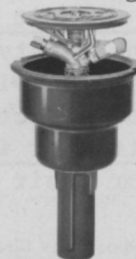
Since we invented the impact sprinkler over forty years ago, it should come as no surprise *we make more sprinkler system components than anyone else.* For agriculture. For golf courses. For parks and gardens and residential lawns.

Everyone talks about the weather. We help you do something about it. We put rain under your control. To keep things green and growing.

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# Government News / Business

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Minimum wage scale effective January 1, 1975 is: Agricultural employees - \$1.80; Non-agricultural employees covered before 1966 amendments - \$2.10; Non-agricultural employees first covered by 1966 and 1974 amendments - \$2.00.

Monsanto Company's former Agricultural Division reorganized to form Monsanto Agricultural Products Company. Edmond S. Bauer, newly elected corporate group vice president, said the change in organizational designation "strengthens our ability to more effectively meet market needs, consistent with growth and profit objectives..." Bauer added, "In the long run, we expect greater benefits will accrue to our customers and employees, as well as the shareowners of Monsanto."

Pacific Supply Cooperative, Portland, Oregon, was recently fined \$300 for violating labeling requirements of the Federal Seed Act. Details of the case involved two shipments of annual ryegrass seed into Arkansas and Virginia. Both shipments were found to be falsely and incompletely labeled as to the presence of noxious weed seeds. The two states cooperated with the Agricultural Marketing Service in making the investigation.

Interstate Commerce Commission voted to make permanent a 4 percent interim freight rate increase authorized for most of the nation's railroads earlier this year.

Walbro Corporation, Cass City, Michigan, recently announced the acquisition of Auburn Die Casting Corp., Auburn, Michigan. The merger brings together two leading suppliers of the chain saw industry. Walbro manufactures chain saw carburetors and Auburn produces die castings for Beard-Poulan, Campbell-Hausfeld, Homelite and Roper.

Congressional pressure has resulted in a consultation program for on-site job safety and health help for small businesses. The program is expected to be approved by OSHA. Only states where federal job safety and health rules are enforced by OSHA will be eligible for the program. There will, however, be no citations issued for any alleged violations found and no penalties proposed.

American Association of Community and Junior Colleges, working under OSHA contract, has selected 20 junior colleges to participate in an experimental training program aimed primarily at small employers. Running through June, each college will conduct 8-hour or 12-hour courses on OSHA and its standards.

U. S. Fourth Circuit Court of Appeals ruled that a general contractor is not responsible for the safety of his subcontractor's employees. The decision came in a complicated case involving a fatal accident, for which OSHA cited the contractor as well as the subcontractor for serious violations of its standards. The court held that the contractor is not an "employer" of the dead workers and therefore not responsible for their safety.

# *A burst of brilliance...* Fylking for the World's Fair!

Fylking Kentucky bluegrass is a superior, elite bluegrass that burst like a star on the scene in the sixties!

Since then Fylking has established records making it the perfect choice for the official grass at the environmental World's Fair, Expo '74.

Fylking has proven to have superior resistance to disease and drought; withstands traffic. Its thickly woven rhizome root system develops dense sod so quickly Fylking can be lifted in 90 days. Fylking can be mowed at 3/4 inch (even 1/2 inch) and thrive. It absorbs carbon dioxide pollutants, gives off oxygen, cools air by releasing water vapor.

A superior mixer, Fylking greens up earlier in spring, stays greener in summer heat, remains green longer into fall.

Choose Fylking and your customers are getting a grass good enough for a World's Fair!



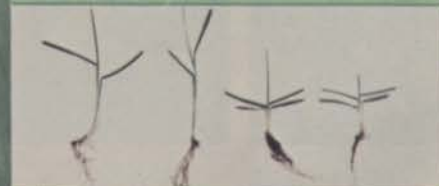
## **FYLKING KENTUCKY BLUEGRASS**

U. S. Plant Patent 2887

Another fine product of Jacklin Seed Company



Fylking's rhizome root system develops so thickly, under ideal conditions sod can be lifted in 90 DAYS.



Low growth, short leaf sheaths and abundant tillering of Fylking (right) compared with another elite bluegrass plant.



Cross section displays thick, luxuriant turf, fine leaf texture and brilliant green color of Fylking.



# Give crabgrass

One  
week



Two  
weeks



Four  
weeks



(Like 2 feet in 10 weeks.  
It'll also produce 3,000 seeds  
to grow on you next time.  
Balan<sup>®</sup> nips all this in the bud.)