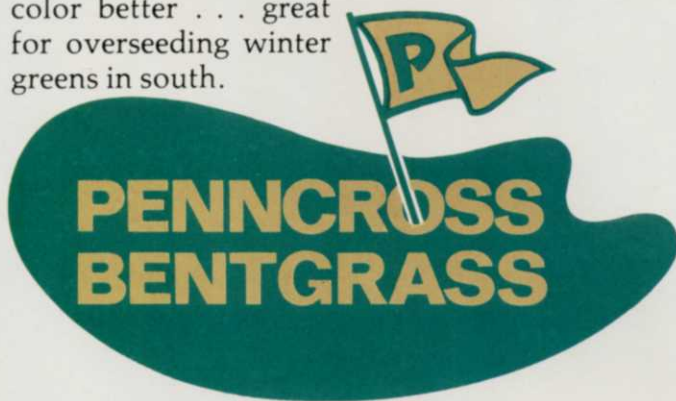


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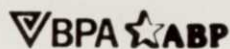
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Single copy price \$1.25 for current and back issues. Foreign \$1.50. Subscription in the U.S. \$14. for one year, \$24. for two years; and \$32. for three years. Canada is \$16. per year. Other countries are \$30. per year, including airmail. Controlled circulation postage paid at Cleveland, Ohio 44101. Postmaster: send form 3569.



Member; American Business Press, Business Publications Audit, National Golf Foundation, American Sod Producers Association, Associated Landscape Contractors of America, National Landscape Association, Horticultural Research Institute.

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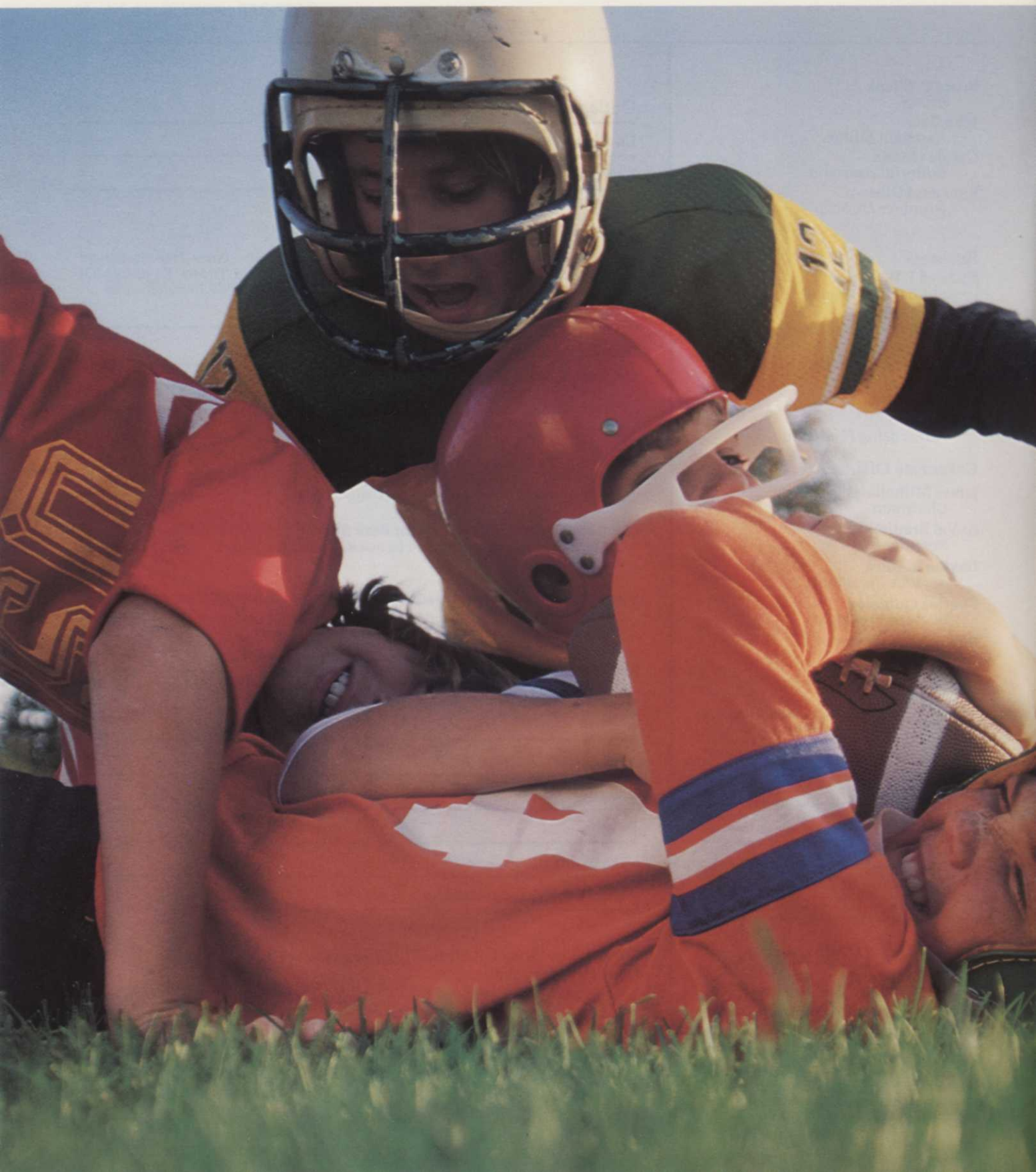
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Cover: The Rock Garden, Niagara Falls, Ontario, Canada, taken by Gary Anderson.



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The Toro Company, Irrigation Division, P.O. Box 489, Riverside, CA 92502. International Telex: 676-490.

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IRRIGATION DIVISION

OUTLOOK

By Bruce F. Shank, Editor

Chicago's Butler National golf course has become the world's largest turf laboratory. Turf experts from across the U.S. are flying into Chicago to get samples of the diseased Toronto bentgrass that turned the greens of Butler National an embarrassing brown prior to the Western Open. An absolute identification of the disease which devastated the greens will take a few more months. Samples of the fungus must be isolated and proven harmful to healthy Toronto bentgrass. Only then can the real guilty fungus be identified.

Meanwhile, Dr. Joe Duich of Pennsylvania State University is directing renovation of the Toronto greens with Penneagle, a bentgrass he selected and developed. At the same time, the Golf Course Superintendents Association of America has sponsored a research committee headed by nationally known turf-

grass pathologist Houston Couch from Virginia Polytechnic Institute in Blacksburg.

The list of those involved in the postmortem at Butler National reads like the *Whos' Who* of turfgrass research. It has been a long time since one golf course has drawn so much research attention. GCSAA is looking at the cause of the disease, the maintenance history of the course, and the role of the superintendent in the problem.

According to Fred Grau, the incident spells the end of monoculture vegetative creeping bents. Seed from polycrossed bentgrasses will now have the clear vote of confidence of superintendents and turf researchers. It also signifies the critical importance of paying heed to advances in turfgrass culture. Turfgrass pathologists themselves disagree on many points of their

science. Only further research can clear up the confusion.

The people involved are taking this problem seriously and using it to test their problem solving ability in a real field situation rather than in a laboratory. The club is cooperating amazingly. Butler National will not let its reputation falter by one incident. Rather than hiding behind some public relations barricade, it is opening its doors to turf scientists and to GCSAA and USGA.

Perhaps if more clubs with turf incidents opened their courses up to turf specialists we would have more practical solutions in shorter time. Scientists need the field challenges and the financial support to apply their research. Perhaps Butler National has opened the gate to more rapid progress with turf management.

WTT

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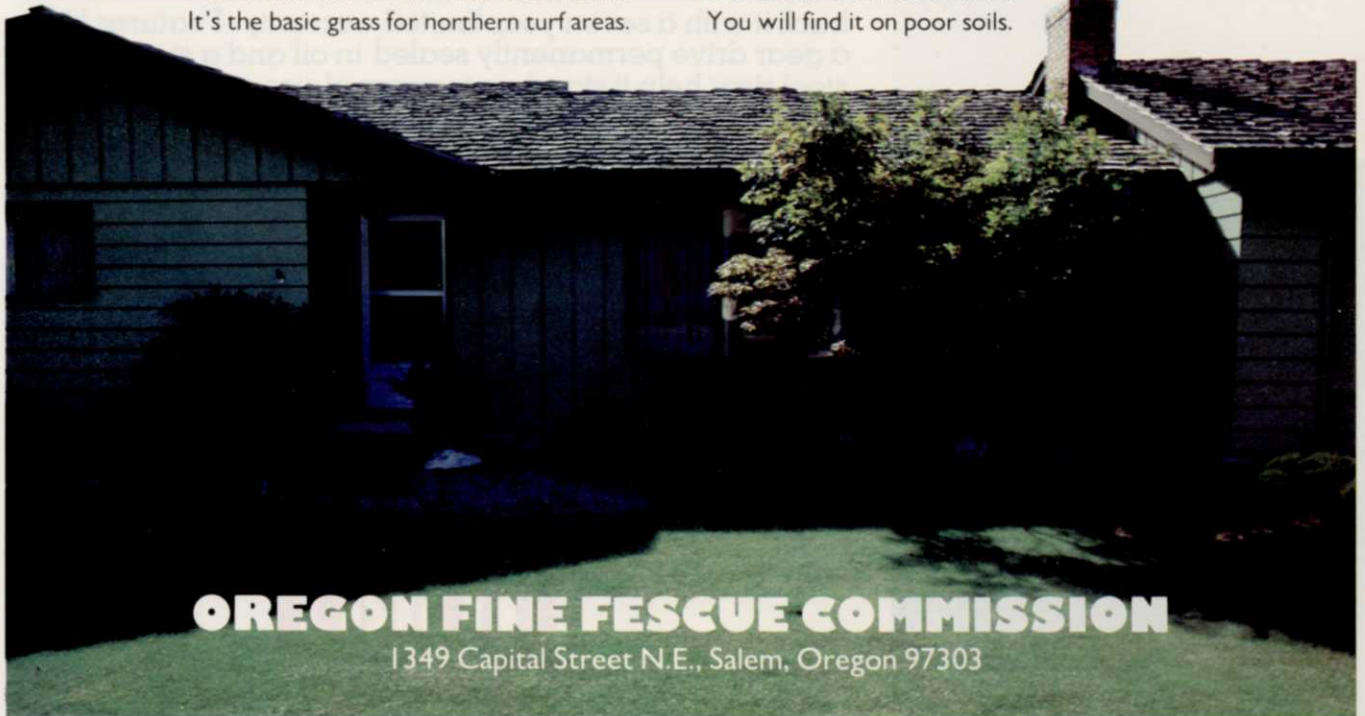
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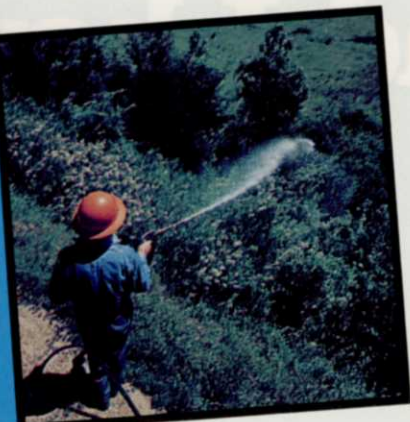
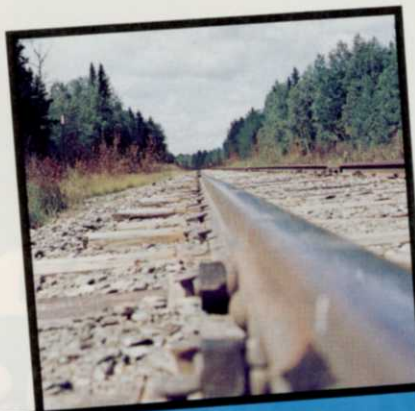
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GREEN INDUSTRY NEWS

Reseeding Mount St. Helens no routine project

A ravaged landscape and the logistical problems of working around it plus a still very volatile Mount St. Helens makes reseeding this area a formidable task.

For Wolfkill Feed & Fertilizer Co. of Monroe, WA, the challenge lies to reseed 20,000 acres of ash-covered land between Sept. 4 and 30.

The \$3 million project is vulnerable for a couple major reasons: early rains in this area, that average 140 inches a year, could destroy germinating turf; and a new eruption of the mountain amplifies the danger for any plant and human life in the area.

"There is no precedent set for a project like this," says Gene Stokes, contract specialist for the Soil Conservation Service. The federal agency is responsible for specifying the materials and deciding the contractors for the job, which it has already done. "The things we are doing are not proven to work."

Groups have criticized the program as being a waste of dollars — both the federal 90 percent and 10 percent balance from the state or local governments or private land owners. Yet none of those paying the 10 percent portion have refused.

It's worth the money to the towns of Longview, Kelso, and Castle Rock, WA, parts of which have already been hit by a mudflow which ran 35 to 40 feet high and two miles wide at 30 miles per hour. It's also valuable land to timber companies such as Weyerhaeuser and Burlington-Northern, and those who depend on the Toutle, Cowlitz, and ultimately Columbia River for fishing and shipping. The U.S. Army Corps of Engineers now has dredges working to reestablish the flow of the streams which are landlocked and exposed to rains that may produce gushing floods.

The Soil Conservation Service accepted bids per acre from Wolfkill, Jacklin Seed Co., and Cominco-

American. Bids were granted in two parts, distinguishing Forest Service land from the Department of Natural Resources. Because of logistics—the Forest Service land is the highest elevation—type of seed, and fire requirements, this land costs more per acre. This area of 8,000 acres will cost \$600,000; the remaining 12,000 acres of DNR land will cost \$980,000. If all goes smoothly, extraneous costs may stay below the \$3 million estimate.

"The weather's the major problem," says Jim Price, vice president of marketing for Wolfkill. "If storms roll in, we can't fly and the seed won't germinate before Sept. 30. If by next summer we have three living plants per square foot we would consider it a success."

All seeding and fertilizing is being done by helicopter. Wolfkill will have to truck the materials 80 miles from its plant to load for aerial application.

The Forest Service has specified a mix of the following seed for its lands: perennial ryegrass, 10 pounds per acre; annual ryegrass, 15 pounds; subterranean clover, 4 pounds; and hairy vetch, 4 pounds for a total of 33 pounds per acre.

The DNR has specified the mix for its land as: perennial ryegrass (pasture types), 5 pounds; annual ryegrass, 15 pounds; creeping red fescue, 10 pounds; timothy, 2

pounds; white clover, 2 pounds; and birdsfoot trefoil, 2 pounds for a total of 36 pounds per acre. Normarc, Inc. of Tangent, OR, is supplying the seed, approximately 700,000 pounds for the total project.

Fertilizer requirements per acre, the same for both areas, consist of the following: available nitrogen, 30 pounds; available phosphoric acid, 60 pounds; available potash, 60 pounds; and total sulfur, 20 pounds per acre.

By spring, with the hope that the fall seeding holds, more reseeding, revegetation, and reforestation will occur. If the fall seeding fails, Mount St. Helens will be susceptible to severe slope erosion and the surrounding area could be wearing its ash and mud.



Dredging the Toutle River occurs while 20,000 acres of the surrounding countryside is being reseeded.

CONVENTION

ISA conference draws many skilled educators

Forty-two experts in varied fields of arboriculture — commercial, municipal, and utility—spoke to 700 people attending the International Society of Arboriculture's 56th annual conference in Hartford, CT.

Topics of the five-day program,

held at the Sheraton Hotel Aug. 10-15, covered mixed plantings, insect problems, systemic injections, line clearing, and an array of specialized subjects for the arborist.

This conference marked the first in which the ISA has set aside one full day for commercial exhibits. Attendees thus had more time than brief coffee breaks to view displays of 36 exhibitors.

At the final day's luncheon, Presi-