

NORTHWEST TURFGRASS TOPICS

VOL. 11, No. 2

PUYALLUP, WASHINGTON

SEPTEMBER, 1969

PROGRAM — 23rd NORTHWEST TURFGRASS CONFERENCE

Hayden Lake, Idaho — September 24, 25 & 26, 1969

Wednesday afternoon, September 24

- 1:15 - 1:30 CALL TO ORDER AND WELCOME, Mr. George Harrison, President, Northwest Turfgrass Association, President, Hayden Lake Golf & Country Club, Dr. Jack Robins, Director Exp. Station, Wash. State University, Pullman, Wash.
- 1:30 - 2:15 OVERWINTERING DISEASES OF TURFGRASSES. Mr. J. Drew Smith, Plant Pathologist, Grasses, Research Branch, Canada Agric., University Campus, Saskatoon, Saskatchewan.
- 2:15 - 3:00 THE VALUE OF THE TURFGRASS INDUSTRY - WASHINGTON STATE TURFGRASS SURVEY. Dr. Roy L. Goss, W.W.R.E.C., Puyallup, Wash.
- 3:00 - 3:20 Break
- 3:20 - 4:00 THE EFFECTS OF THREE NITROGEN SOURCES AND THREE pH MODIFIERS ON TURF QUALITY. Mr. Wilbur L. Bluhm and Dr. Norman R. Goetze, County Extension Agent, Oregon State University, Salem, Oregon
- 4:00 - 4:35 TARTAN SURFACING MATERIAL EXPANDS FROM HORSE TRACKS, TO FOOTBALL FIELDS IN TEN YEARS. Mr. William P. Whitehead, Minnesota Mining & Manufacturing Inc.
- 4:35 - 5:00 QUESTIONS AND ANSWER SESSION
- EVENING:
- 7:30 - 7:30 SOCIAL HOUR
- 7:30 BANQUET

Thursday morning, September 25

- 8:30 - 9:10 HOW THE GRASS PLANT GROWS & SURVIVES. Mr. William H. Bengueyfield, Western Director USGA Green Section, Garden Grove, California.
- 9:10 - 10:00 FACTS ABOUT AUTOMATION IN IRRIGATION. Mr. Bjorn N. deBough, Seattle, Wash.
- 10:00 - 10:20 BREAK
- 10:20 - 11:00 THE AFFECTS OF CULTURAL PRACTICE IN RELATION TO MICROCLIMATE AND THATCH. Dr. J. R. Watson, Director of Marketing, Turf Products Toro Manufacturing Corp. Minneapolis, Minnesota.
- 11:00 - 11:35 QUESTION AND ANSWER SESSION
- 11:35 - 12:15 ANNUAL NORTHWEST TURFGRASS ASSOCIATION BUSINESS MEETING
- 12:15 - 1:15 LUNCH
- 1:15 - 2:30 HOW MUCH DOES IT COST TO MAINTAIN TURFGRASSES? Mr. Charles Thurman, Horticulture Supervisor, City of Spokane, Spokane, Wash., Mr. George Harrison, Manager Malmo Northwest Landscapers Inc., Tacoma, Wash. Mr. Henry Land Jr., Superintendent, Sandpoint Golf & Country Club, Seattle, Wash.
- 2:30 - FREE TIME FOR SPECIAL MEETINGS, RECREATION, ETC.
- EVENING:
- 7:45 - 9:00 SPECIAL SESSION THE ROLE OF GENERAL MANAGEMENT IN THE TURFGRASS BUSINESS
- (Continued on Page 3)

FROM THE PRESIDENT'S CORNER



BY GEORGE HARRISON

Welcome to our annual Northwest Turfgrass Association Conference. We are very proud of the Association and its efforts to promote research in turf culture. We feel that this Conference is by far the most efficient way of getting information to the people who use it in the fastest way possible. The program available to you at this year's conference has been organized and scheduled by your board members working since last December. We want to express our appreciation to them for their efforts and to the contributors who have donated much time and study to the papers which they are presenting. We want to thank the management and members of the Hayden Lake Country Club for providing us with this beautiful setting. We expect to enjoy the use of the golf course and we know that Johnny Harrison has worked especially hard to have the course ready for us.

The growth of the Association the past two years has been especially satisfying to me. The board members for the past two years have done an excellent job of

promoting the Association as evidenced by the growth in membership.

The dues of the members have been used to foster research in the three Northwest states and the Province of British Columbia, and we have had expressions of gratitude from all of the schools so supported. The amount used from each member seems small, but when lumped together in community effort the results have been rewarding.

I especially wish to extend greetings to new members attending for the first time, and thanks to you old members who have supported us during my period in office. I hope that this may be the best conference ever held.

KEEPING UP TO PAR

By John A. Prestbo

The following appeared in the "Wall Street Journal" July, 1969.

(Chicago) - If your once lush green lawn is now turning brown (and your wife is nagging you to do something about it), take some tips from an expert grass grower:

Your problem might be one of 40 common turf diseases, which Oscar L. Miles of south suburban Chicago is always looking closely for. This year he plans to spray his grass with mixtures of fungicides totaling 4,925 pounds of expensive chemicals.

Or maybe your browning lawn needs more water. Each summer Mr. Miles irrigates his grass with about 31 million gallons, pumped through a 10-mile network of pipes and sprinklers.

Of course, he tends a bit more turf than the average weekend gardner. Mr. Miles is superintendent of two 18-hole golf courses at Olympia Fields Country Club.

He's one of the nation's estimated 5,500 golf course superintendents, whose jobs are part agronomy and part aggravation. Their bosses are dedicated golfers whose own lawns at home could be a tangle of dandelions but who rage if their bobbled putts can be even remotely blamed on a stray blade of grass.

(Continued on Page 4)

FROM THE OREGON COMPOST HEAP



BY BYRON REED

After missing a few issues of the Turfgrass Topics and giving you fellows a good rest, I have decided to punish you again. It is hoped that the Editor will punish you further by running a picture of this writer.

For the Washington readers who enjoyed a pleasant winter, let me take a few moments to tell you about the Alaskan type of winter Oregon had. Every square foot of Oregon was covered with snow right down to the ocean edge. Golf courses were closed for weeks because of snow cover. In spite of all this, the turf people here in Oregon managed to survive and turf conditions are generally excellent.

A new golf club is being constructed at Charleston, Oregon Sun River Golf Course opened this summer and are presently building on the second nine. A new Golf Club is opened in Salem by the name of Meadow Land Golf Club. Tokatee Golf Club will have finished 18-holes and ready for play by next spring. A new golf club has been constructed at Waldport, Oregon. Pleasant Valley Golf Club, East of Portland, was opened this past spring.

All of us here are anxious to get to Hayden Lake Golf Club and the Conference so we may renew old acquaintances. I will bring all details regarding the 1970 Northwest Turfgrass Conference to be held at Salishan, in early October. You can look forward then to a complete discussion about the facilities, room rates, and any other information you need regarding the conference site for 1970. I will see all of you at Hayden Lake.

23rd CONFERENCE PROGRAM

(Continued from Page 1)

INESS. Mr. H. Deryck Berry, General Manager, Capilano Golf and Country Club, West Vancouver, B.C., Mr. Max Kamp, General Manager, Hayden Lake Golf and Country Club, Hayden Lake, Idaho, Mr. Cliff Wagoner Director, Golf Course Superintendents Association of America.

Friday morning, September 26

- 8:30 - 9:00 TURFGRASSES FOR THE NORTH.
Mr. J. Drew Smith, Plant Pathologist, Grasses, Research Branch, Canada Agric., University Campus Saskatoon, Saskatchewan.
- 9:00 - 9:45 CAMPUS TURF MAINTENANCE, Mr. George Woods, Landscape & Grounds Superintendent, Seattle School District #1, Seattle, Wash.
- 9:45 - 10:30 REPORT OF INTERNATIONAL TURFGRASS RESEARCH CONFERENCE & TURFGRASS TOUR
Dr. Roy L. Goss, Associate Agronomist & Extension Specialist in Agronomy, W.W.R.E.C., Washington State University, Puyallup, Wash.
- 10:30 - 10:45 BREAK
- 10:45 - 12:00 RESEARCH REPORTS AND QUESTION AND ANSWER SESSION AND CONFERENCE WRAP-UP.
- 12:00 ADJOURN.

KEEPING UP TO PAR

(Continued from Page 2)

A CHANCE REMARK

Each year many superintendents have their reputations put on the line when their clubs host major tournaments. Then, a chance comment to a sports reporter by a disgruntled pro ("I would've broke par if the greens weren't in such lousy condition") could give their handiwork a nationwide bad press overnight.

Golf course superintendents "are expected to raise laboratory-quality grass under battlefield conditions," says Ben J. Chlevin, executive director of the superintendents' national association. This year some 11 million American golfers, nearly 50% more than five years ago, will tromp around 9,615 golf courses (many smaller, publicly owned courses can't afford full time superintendents, which explains why there are fewer superintendents than courses.) The golfers will chew up the turf with their spiked shoes and dig it up with their clubs.

To cope with the punishment their grass must take, superintendents have become a highly specialized, professional group. Twenty years ago, when golf wasn't the national craze it is now, superintendents were called greenskeepers, were paid meagerly and had no formal training. Some of them came from farms, while others drifted into the work because they had a green thumb.

A COSTLY CROP

Today, superintendents are entrusted with

growing what's probably the nation's most expensive crop. Many plush country clubs sprawl over land worth \$50,000, or more an acre, and in metropolitan areas such as Chicago their superintendents spend upwards of \$100,000 a year to maintain each 18-hole course.

With this kind of money at stake, golf clubs aren't hiring amateurs anymore. Many of the younger superintendents have bachelor's degrees in agronomy or some related subject, and a few hold master's degrees. Many are graduates of special turf management courses offered by a dozen universities around the country.

The new breed of superintendent works with soil tests and chemical analyses instead of intuition. Some are even feeding soil conditions into computers to help determine how much water and what kind of fertilizer to apply and when. Top superintendents are paid up to \$23,000 a year, and some are provided free housing on their course.

Like many of his colleagues, Oscar Miles of Olympia Fields is a golf enthusiast. When he was a teen-ager he considered making golf his career but then chose superintendency because he saw "more potential for advancement" in grass-growing than on the pro circuit. Now an energetic 30-year old with a sand-colored mustache, Mr. Miles plays his two courses at least twice a week "so I can see how the course is from the golfer's point of view." (He has a seven handicap.)

THICK GRASS

Under his watchful eye, his 36-man summer crew (15 are year-round men) mow the club's eight miles of fairway every other day at five-eighths of an inch. He keeps

(Continued on Page 5)

Especially for Turf!
VIKING SHIP HYDROPRILLS
21 - 7 - 14
WITH 5% SULPHUR
**THE RECOMMENDED RATIO IN
A HOMOGENEOUS, FLOWABLE,
ROUND PRILL**

MANUFACTURED BY NORSK HYDRO
Oslo, Norway

Distributed by
WILSON & GEO. MEYER & CO.
Seattle Telephone—AT 4-1620
Portland Telephone—288-5591

Turf Equipment Specialists

Complete Line of Golf Course
Maintenance Equipment and
Accessories.

E. P. BALTZ & SON

8917 E. Burnside Street
Portland 16, Oregon
Alpine 4-5693

KEEPING UP TO PAR

(Continued from Page 4)

fairway grass growing thick so that golf balls will perch on top of the blades instead of sinking down. That's important because golfers lose a degree of control of their hits if grass or clover comes between the swinging club face and the ball.

Mr. Miles' greens are trimmed early each morning at three-sixteenths of an inch, a much shorter pile than in many living room carpets. The tees are also clipped daily, at three-eighths of an inch, and the roughs are mowed weekly at three inches.

The worst enemy of Mr. Miles' 380 acres of manicured greenery is people's feet. He can control the damage caused by members playing 45,000 rounds a year, but tournaments are major headaches. Last August 70,000 spectators flocked on Olympia Fields' north course for the annual four-day Western Open, and Mr. Miles knew the milling throng, many with spiked shoes on, would trample his grass to death.

Replanting it all after the tournament would take time and interrupt members' play. But Mr. Miles came up with a solution. After the first day of the tournament, he had his men spread grass seed along the crowd's traffic patterns. "The spectators spiked the seed into the ground for me, and all I had to do was water it," recalls Mr. Miles. "Three weeks after the tournament you wouldn't know we had anybody here."

Working with nature is the easiest part of their jobs, the superintendents agree. It's getting along with the club members that can be a strain, which is why some superintendents dream up occasional little extras as public relations efforts. On ladies' day at Sunset Country Club in St. Louis, for example, superintendent Robert V. Mitchell sets out potted geraniums at the tees and marks the cups on each green with pink poles holding pink flags trimmed in black lace.

It helps to have a tight rein on tempers, too. One recent birth of July the Danville, Ill., Country Club brought in ponies for members' children to ride.

That night somebody tied one pony to the flag on a green. When James W. Brandt, the superintendent, arrived at work the following morning he found the tethered pony had worn a trench in the green by circling the pole all night.

The bad luck award, however, seems to have been permanently retired by Fred Harris, superintendent of the 27-hole Los Coyotes Country Club near Los Angeles. In October 1964, he bought some fertilizer and told his men to put it on a few greens. Unfortunately, when the stuff had been packaged, soil sterilants somehow were mixed in with the nutrients, and every blade of grass on four greens promptly withered and died.

A livid board of directors threatened to fire Mr. Harris, but he proved with soil tests it wasn't his fault. After a long period of litigation involving the fertilizer company and other suppliers, the club was reimbursed for the damage. Meanwhile, it took six months to rebuild the greens.

Then in December of the same year, a mammoth storage tank on a neighboring oil tank farm sprung a leak and sent about 300,000 barrels of crude oil gurgling over five Los Coyotes fairways. The oil company resodded the course, but with soil that had such a high saline content it took Mr. Harris a year to restore the fairways to normal.

The worst most superintendents have to put up with is vandalism, which is increasing despite efforts to increase grounds security. Besides tearing up the sod with drag races or spinning motorcycles, a seemingly favorite bit of vandalism is scratching dirty words deeply into the close-cropped greens.

(Continued on Page 6)

SOD and STOLONS

LAWNS — TEES — APRONS
BEAUTIFUL — DURABLE

Stolons Grown on Contract

ASK US FOR PRICE F.O.B. SUMNER
OR YOUR LOCATION

Emerald Turfgrass Farms

1703 Dexter Ave. Seattle, Wash. 98109

NEW HERBICIDES FOR POA ANNUA SEEDHEAD

by Roy L. Goss

Poa annua control has posed a major problem to every turfgrass manager and researcher for many years. Frequently we are asked by practical thinking men, "Why fight it?" or "Why get rid of it?" If managed properly Poa annua makes acceptable turf in many areas as well as golf course putting greens.

One of the major difficulties with Poa annua is that it dies out at a time when you need it most - right in the middle of the major playing season. Therefore, we continue to seek better ways of managing it or eradicating the entire population. Throughout the years vigorous vegetative bentgrass varieties have been developed in an effort to control Poa annua but it seems as though the pest always wins out. Other materials such as cumulative doses of arsenicals have also been tried and is still being practiced in certain areas. More recent development of the pre-emergence crabgrass materials that show considerable activity on Poa annua have also been used. In spite of all of these various attempts we still have Poa annua in considerable abundance.

Stop the Seeds

Obviously one of the best ways to eliminate any species from existence is to inhibit reproduction. It has always been the author's contention that if we could control seedhead formation we could probably eliminate the plant. You don't have to be too keen an observer to note that Poa annua will produce seedheads in abundance even at mowing heights under 3/16" high. Any time that a grass is

cut shorter than about 5/16" it exhibits reduced vigor and develops certain problems. None of our desirable grasses will set seedheads cut below this height. I believe the obvious explanation then for the proliferation of Poa annua lies in the fact that it has a constant annual replenishment of its species through seed production. One of the attempts to compete with this has been the practice of overseeding with desirable bentgrasses, bluegrasses or fescues whichever the case may be. At least we are providing seed for areas that may be thin with the hopes that the desirable type will establish as quickly as Poa annua. This, of course, has resulted in some gain but has not been perfect.

A new chemical has been developed by one of the major chemical companies and is under test at the present time, that shows promise for reducing and inhibiting seedhead formation in Poa annua. The preliminaries such as rates, timing and other factors of application are being worked out at this time. Spring tests have in-

(Continued on Page 7)

KEEPING UP TO PAR

(Continued from Page 5)

"It always seems to happen just before the ladies' tournament," moans one superintendent.

At one Los Angeles-area course, the superintendent walked out one recent morning to find a green completely stripped of sod. The police quickly nailed the culprit, a nearby homeowner who had decided his yard needed some nice grass. "It was easy to track him down," says a friend of the course superintendent. "All they did was go down the street and look for the best lawn on the block."



AUTOMATIC - MANUAL Sprinkle Systems

Complete Line of Water Handling Equipment

Polson Implement Co.

DISTRIBUTORS

SEATTLE
MA 2-2891

SPOKANE
FA 7-5515

NEW CONTROL FOR BROADLEAF WEEDS IN TURF ...

VELSICOL

BANVEL-D-4S HERBICIDE

Controls Knotweed, chickweed, curly dock and other hard-to-kill broadleaf weeds.

Order Banvel-D-4S from your distributor now!

VELSICOL CHEMICAL CORP.

341 E. Ohio St.

Chicago, Ill. 60611

CERTIFICATION OF TURFGRASS WORKERS

For the past two or three years there has been a great deal of discussion about the certification of golf course superintendents. The reason for this is that we all know that it takes a good many years to develop a good golf course superintendent. However, the interesting thing about growing grass is that it appears that everyone can talk intelligently up to a point about this art and science. It seems that every homeowner, every golfer, and every picnicker can tell how to grow good turf. When placed in the superintendent's position, however, they find that it is considerably more detailed and requires a lot more background.

Certification can be practiced with almost any group of professional or semi-professional people. Examinations are required for many professional people in this world. Lawyers must pass state bar exams. Veterinarians must also pass

NEW HERBICIDES

(Continued from Page 6)

indicated that a considerable reduction in seedhead formation has been accomplished. The material does not actually kill the Poa annua nor the other desirable grasses. It does injure the Poa to some extent but the mature plants usually recover.

Initial results indicate that due to the decrease in seedheads and vigor of Poa annua the bentgrass populations have been allowed to develop more vigorously and have resulted in better stands of bent on the basis of one year's test. This approach, no doubt, will pave the way for better controls of Poa annua in the future.

PACIFIC AGRO COMPANY

We enjoy working with turf people.
Helping to Keep Washington Green.

YOUR SOURCE OF NITROFORM

1075 S.W. Spokane St.

Seattle, Wash. 98134

Phone MA 3-7852

examinations for state licensing. Accountants must be tested and approved. These people by the very fact that they have demonstrated a proficiency in their professions have formed a stronger and more highly professional group.

The Golf Course Superintendents Association of America has recently initiated

(Continued on Page 8)

Keep
in the
Green
with



MILORGANITE

It will be delivered to your
Turf Supply Storage area by
the following distributors:

OLYMPIA & HARBOR AREA

HARVEY'S OLYMPIA FEED
417 No. Capitol Way, Olympia, Wash. 98501
Phone FL 2-8471

TACOMA & PENINSULA AREA

NULIFE FERTILIZER CO.
1424 Thorne Road, Tacoma, Wash. 98401
Phone BR 2-5871

SEATTLE-KING COUNTY

NORTHCOAST SEED CO.
2204 Airport Way South, Seattle, Wash. 98134
Phone MA 4-3683

EVERETT-BELLINGHAM AREA

EVERETT MILLING CO.
2925 Chestnut Street, Everett, Wash. 98201
Phone AL 2-3725



Won't burn—builds
healthy turf. Used by
more golf courses than
any other fertilizer!

CERTIFICATION OF WORKERS

(Continued from Page 7)

a program for certification of golf course superintendents. These points have been published in the magazine "The Golf Superintendent" and you can look them over for yourself. This is the only way that you will ever keep out the imposters, the uninitiated and the inexperienced. When a golf club hires a person who is supposed to know the business and finds that they have hired someone who is highly incompetent it leaves a very poor impression on the entire profession. Sometimes they rationalize the problem by saying, "oh well, perhaps the next one we get will be no better." By certifying anyone for a superintendent would imply that he has had a given number of years of practical experience, professional experience, is familiar with soils fertility, diseases, insects, machinery, managing personnel, conducting meetings and a number of other qualifications.

This same approach could be used very effectively by commercial applicators such as the ground sprayers. I am sure that if every ground sprayer could produce a certificate saying that he was a certified ground sprayer and had the proper state licenses that he would place the customer at a sense of ease since he would feel that the man is highly qualified and competent. There will always be a few weak people in the profession regardless of certification programs but it will certainly eliminate the very bad ones.

One of the most interesting things to the writer is that a certification program actually becomes a stimulus for greater accomplishments by the individual. It presents some goals for him to achieve. Most of us are prone to put off doing

something unless there is a goal or a regard for achievement. Among other things this is one of the greatest things that certification will achieve.

Job Classification

More recently it has come to my attention that most labor offices and civil service boards do not have a clear concept about the requirements for various turfgrass managers, spray applicators, and other people in these professions. Golf course superintendents are classified in some cities as greenskeepers. Obviously, with this classification the pay scale is also considerably lower. More recently I asked a group of superintendents if they had discussed this point with the civil service boards or the Labor Offices and the reply was "no." The local Golf Course Superintendents Associations, the Commercial Applicators Association, Parks Associations or other organized groups of turfgrass workers can send representatives to these groups with job descriptions of their personnel. These descriptions, I'm sure, would be heartily welcomed and would serve as guidelines for re-classifying personnel. These guidelines can be changed from time to time as the responsibilities of the individual increase. But in the end the responsibility of making these things known are up to you and your organizations.

Additional discussions regarding certification programs and professional improvement will be discussed at the Northwest Turfgrass Conference at Hayden Lake, Idaho on September 24, 25 and 26 by a number of people in the field including Mr. Cliff Wagoner, one of the Directors of the Golf Course Superintendents Association of America.

LILLY'S Organic Fertilizers

"Keeps Grass Greener — longer"

☆ Custom mixing of seed and fertilizer to your requirements.

Chas. H. Lilly Co. **Portland Seed Co.**
MA 2-8484 BE 2-5135
Inland Seed Co.
TE 8-8211

IT'S TIME TO LIME

Grass will not grow without sufficient available

CALCIUM!

Kiln dried - Fine ground limestone Flour

HEMPHILL BROS. INC.

Seattle MA 2-4277

J. A. JACK & SONS, INC.

High Calcium, Sacked, Bulk or Spread

FALL WEED CONTROL

By Roy L. Goss

The time is fast approaching for effective herbicide applications in turfgrass areas. The intention of this article is more to point out some of the precautions of herbicide applications than the eradication of weeds. All of us are very much aware that we have effective herbicides for the control of nearly all broadleafed weeds today. Since the advent of Banvel-D (Dicamba) very few of the major broadleafed weeds escape our control in the Northwest. Combinations of Silvex, MCPP, and Banvel-D virtually bomb any of the broadleafed weeds except Veronica.

Banvel-D, although an extremely good herbicide, can cause some serious problems with surrounding ornamental plants due to leaching into the root zones. It is believed that misapplication of Banvel-D has been primarily responsible for the losses of Sycamore trees, weeping birch, willow, lilacs and a number of other species. Under no circumstances is it necessary to apply more than 1 pound of active ingredient per acre for the control of weeds. In most cases rates of 1/2 pound per acre or less can be used for effective control. The closer you are spraying to susceptible species, the lighter the rate should be. Never figure that if a little is good, more is better. Rates as low as 1/8 to 1/4 pound of active ingredient per acre have produced excellent results in the control of most susceptible broadleafed weeds. Only the harder to kill weeds such as English lawn daisy and yarrow would require higher rates than 1/2 pound.

IS BANVEL-D ALWAYS THE CULPRIT?

The answer is positively NO. Banvel-D has

been blamed for many of the losses of surrounding ornamentals. In many instances, high rates of 2,4-D have caused severe injury to adjacent ornamentals. Usually when Banvel-D has been mixed with 2,4-D, Silvex, or MCPP, any resulting injury is blamed on Banvel-D. This may or may not be true. It is rarely necessary to apply 2,4-D at rates higher than 1 to 1-1/2 pounds of active ingredient per acre.

TURF-TRUCKSTER

The All-Purpose
Grounds Maintenance Vehicle

SEATTLE — Pacific Equipment Co.

1001 S. Jackson EA 9-0100

PORTLAND — Ray Garner Co.

2232 E. Burnside 232-2588

SPOKANE — Audubon Cushman Sales

1329 N. Ash St. GA 5-2527

• End Turf Moisture Problems •

with DIALOAM • a soil conditioner that absorbs 150% of its weight in water. Not a clay • Will not compact • Write for free sample and prices.

MANUFACTURED BY
EAGLE-PICHER INDUSTRIES, INC.
Cincinnati, Ohio 45201

DISTRIBUTED BY
The Chas. H. Lilly Company
5200 Denver Avenue, South Seattle, Wash. 98108

The Inland Seed Company
228 W. Pacific Avenue Spokane, Wash. 99204

The Portland Seed Company
109 S.E. Alder Street Portland, Ore. 97214

New BEST TURF SPECIAL!

16-6-8 • New High K Formulation with Iron, Zinc, Sulfur & Manganese

- The new pelleted High K Turf Special formulation is a low cost highly efficient turf fertilizer in the University recommended ratio to help turf resist disease, heat, traffic and cold.
- You will be pleased with the long lasting results and the economy of using the new improved BEST TURF SPECIAL.

OCcidental CHEMICAL COMPANY
A DIVISION OF OCCIDENTAL PETROLEUM CORPORATION
1459 THIRD STREET OAKLAND, CALIFORNIA 94607
TELEPHONE (415) 451-4260

You Get Results With
BEST



A.R. SMITH CO., INC.
Seattle-Renton, Washington
(206) BA 6-0260

H.J. STOLL & SONS
Portland 14, Oregon
(503) 235-8946

NORTHWEST MOWERS, INC.

WORTHINGTON JACOBSEN
DEVERE LOCKE

SU 2-5362

1149 North 98th Seattle, Wash.

NU LIFE FERTILIZERS

Suppliers of all
TURF CHEMICALS AND FERTILIZERS
Fungicides — Herbicides
Soil Amendments

1424 Thorne Road
Tacoma 1, Washington

Tacoma BR 2-5171 Seattle MA 2-3228

TURF IRRIGATION

for

- ★ GOLF COURSE — CEMETERY
- ★ PARKS — RESIDENTIAL

H. D. FOWLER, INC.

13440 S.E. 30th Street
BELLEVUE, WASHINGTON 98004

P.O. Box 160 Ph. SHerwood 6-8400

QUALITY PLASTIC PIPE
PVC • POLYETHYLENE • ABS

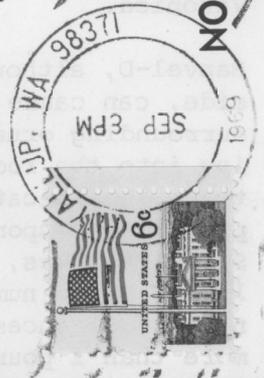
WESTERN
WESTERN PLASTICS CORPORATION

2330 PORT OF TACOMA ROAD
TACOMA 2, WASHINGTON

Dr. Victor B. Youngner
Department of Agronomy
University of California
Riverside, California 92521

NORTHWEST TURF ASSOCIATION

1000 N. E. 135th
Seattle, Wash. 98155



Officers of the Northwest Turf Association

George Harrison President
John Zoller Vice President
Dick Haskell Treasurer
Dr. Roy Goss Exec. Secretary

NORTHWEST TURFGRASS TOPICS is sponsored by the Northwest Turf Association and financed through funds of this organization. Any communications concerning distribution of this paper or association business should be directed to Dick Haskell, 1000 N.E. 135th, Seattle, Wash. 98155, or Roy L. Goss, Western Washington Experiment Station, Puyallup, Washington.

Communications concerning **content** of this paper should be directed to Dr. Roy Goss, Editor, Western Washington Experiment Station, Puyallup, Washington.