

BETTER LAWN - - HARVESTS

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Better Lawn & Turf Institute

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ANNUAL MEETING PLANNED

President Newton has OK'd plans to hold the Institute Annual Meeting in conjunction with the ASTA sessions in Portland, Oregon. Time is tentatively set for 3:00 p.m. on Tuesday, June 13 in the Forum Suite at the Portland Hilton Hotel. The Executive Committee urges you to attend and to participate in Institute affairs, including the election of officers for the year ahead.

Member suggestions are always welcome, and if there is a particular matter to be considered for the agenda at the Annual Meeting please make it known to the Marysville staff offices. Because of evening social activity on Tuesday, the Institute meeting must be efficiently organized for early completion; no field visits are being planned because of the tight schedule.

President Newton cordially invites you to be present for the Institute Annual Meeting Tuesday afternoon, June 13, 3:00 p.m., Forum Suite, Portland Hilton Hotel, Portland, Oregon.

INSTITUTE'S ONGOING ACTIVITY

Because reprints of magazine stories are regularly scheduled, and examples usually mailed to members, this phase of Institute activity tends to stand out.

Equally far-reaching, however, is press kit influence, examples of which are sent to members in late winter and summer. Unless the local paper runs an item, and it just happens to be noticed, members may not be aware that "the message" is reaching the audience that really counts -- the gardening public.

Each time we mention, however casually, the availability of lawn literature upon receipt of a stamped envelope sent to the Marysville office, we have more responses than are convenient to handle under present staff limitations. But it convinces the staff that the press kit word is getting through, -- that writers and editors are kindly befriending an Institute they feel is worthwhile by permitting these mentions to appear in print.

(Continued)

INSTITUTE'S ONGOING ACTIVITY (Continued)

We are gratified, too, by "thank you" letters, and the printed items the staff spots itself on gardening pages of newspapers customarily read. Pages 3 and 4 of this Harvests carry examples of such recognitions, which make us feel that the press kit mailings are indeed rewarding. (e.g. refer to next sheet following, inserted as pp 3-4).

LONG ISLAND PRESS STORY

We are grateful to secretary Bob Russell for sending us a copy of the garden page from the Sunday Press, Long Island, New York. Materials furnished by the Institute (press kit) and independently by Bob are being used by columnist Otto Langhans quite liberally. Headline for the March 19 issue reads, "Can Lawns Sown Now Become Established?". The discussion goes on to explain lawnmaking practices that permit getting a good stand of grass before hot weather. The story concludes, "After seeding is completed it should be 'all down hill' for the lawn project. In spring nature is almost always charitable ---". This should prove encouraging to homeowners considering spring lawn refurbishment.

THE PRESS KIT AT WORK

Alice Kollar's use of the press kit was especially gratifying. Under the pen name of Beth Lindsley, giving credit to the Institute, she composed two pages on lawns for the garden section of the March 26 Newark, New Jersey, Sunday Star Ledger. Mrs. Kollar cleverly integrated a half dozen or so of the press kit stories to create a smooth-flowing text dealing with all aspects of lawngrasses and their care.

The story opens, "Biggest news on the lawn front is the wave of new lawngrass arrivals. This year the lawnmaker will have not only favorites such as Merion and Arboretum bluegrasses, Pennlawn and Illahee fescues, and Highland bentgrass, but a wealth of new selections ---". The "wealth of new selections" are then enumerated, including the bluegrasses, fescues, bentgrasses and perennial ryegrasses approved by the Institute's Variety Review Board. Fertilization, mowing, watering all receive attention, in addition to the emphasis on lawn seeding.

PK RESPONSE FROM EDITOR

Mrs. Jerry Williams, Garden Editor for the Richmond Times-Dispatch comments -- "Thank you for the spring releases. These are appreciated and used although I have been remiss in thanking you for them. -- and needless to say I would like to continue receiving information from you."

FROM THE MEMBERSHIP

"Last evening I reviewed your spring press kit. As usual, an excellent job! I particularly think your idea of including the glossary of turf terms a good one."

George Valentine

Perspectives On 'Bluegrass' lawn seed varies widely

The green thumb 'Bluegrass' lawn seed varies widely

By GEORGE ABRAHAM

The use of fertilizer on golf green is an area of concern by the superintendent to boost Nature's efforts.

by Robert W. Schrader, Director, The Lakeshore Golf Club

Turf fertilizer
completes
official
planting

Horticulture Talks Start Thursday in Chillicothe

SUN., JAN. 30, 1972

The Greening of our World is the title of a series of sessions just announced by the University of Chillicothe. The first session will be held Thursday, Jan. 30, at 7:30 p.m. in the auditorium of the Chillicothe High School. The sessions will be conducted by Dr. Eldon W. Lyle, president of the American Rose Society, and Robert Schery, director of the Lawn Institute in Bowling Green, Ky.

HE TELLS US there are some advantages to the use of fertilizers on golf greens. Before the war, golf courses were fertilized with a new type of fertilizer called "superphosphate." This fertilizer was made from phosphate rock and was very effective. However, it was found that it was causing the soil to become more acidic. Today, we use a different type of fertilizer called "ammonium phosphate." This fertilizer is made from phosphate rock and ammonia. It is very effective and does not cause the soil to become more acidic. In fact, it helps to keep the soil at a neutral pH. This is important because most plants prefer a neutral pH. So, if you are fertilizing your lawn or golf course, make sure you are using the right type of fertilizer. Ammonium phosphate is the best choice for most situations. It is effective and does not cause soil acidification. So, if you are a golfer or a landscaper, make sure you are using the right fertilizer. Ammonium phosphate is the way to go.

forming up to snuff.

Perpetual Juvenility

In nature vegetation undergoes rapid juvenile growth, after which large biomass accumulates in a relatively stable state. Man's demand for production calls for retention of a perpetual juvenile for the growth rate sustained by replanting or some renovation.

It is a common mistake to think of lawn grasses as narrow-leaved as are the new Cheyenne-type fescue dandies. Highlight and Jamestown. Traditional fescues include Pennlawn, Cascade and Illahee. Fine fescue is best in autumn and perennial ryegrass is questionable.

New Types Of Grass Can Vary Look Of Lawns

ST. LOUIS POST-DISPATCH
FRIDAY, MARCH 10, 1972

By GEORGE ABRAHAM
Special to The Dispatch

Homeowners this year can get more and better lawns than ever before. The new improved varieties are about as narrow-leaved as the old-fashioned fescue dandies. They are the new Cheyenne-type fescue dandies. Highlight and Jamestown. Traditional fescues include Pennlawn, Cascade and Illahee. Fine fescue is best in autumn and perennial ryegrass is questionable. Many seedsmen suggest that even for a bluegrass-fescue lawn, a new seeding contain up to 20 per cent of a perennial ryegrass to make cover quickly. UF or organic fertilizers—these are the objective is to consistently provide sufficient nitrogen for good grass growth and color. The nitrogen in grass foliage can be assayed by tissue analysis. It will vary somewhat seasonally when the plant releases a steady rate. When growth is stopped through the use of retardants, problems arise with weeds and in maintaining dense monoculture (a single kind of grass). So fertilization becomes necessary, and it must be done to provide just the right amount of nutrients for vigorous growth without creating maintenance problems. "Slow-release" fertilizer, though it comes at a little extra cost, greatly increases the flexibility of the feeding program and margin for error. With major nutrients, slow release is important chiefly for nitrogen. It is automatically in the soil and is "banked" to a degree at fertilization sites. All of these can be balanced fairly easily. A number of ways to apply fertilizer are available. When labor was plentiful, it was common to apply fertilizer as it is today, probably in a simple way to apportion the soluble nutrient freely. If soluble nutrient is available, it will be an immediate stimulation to growth.

Bluegrass Improves with Each

Several readers have asked me to clear up the "bluegrass" lawn seed story. They can't understand why so many new "types" keep coming out each year. First, let me say that I've been baffled by the new varieties of Kentucky Bluegrass which come out each year. What's so aggravating is the claims made for the ultimate grass you feel that the ultimate year a new bluegrass will be planted last year. I've been baffled by the new varieties of Kentucky Bluegrass which come out each year. What's so aggravating is the claims made for the ultimate grass you feel that the ultimate year a new bluegrass will be planted last year. I've been baffled by the new varieties of Kentucky Bluegrass which come out each year. What's so aggravating is the claims made for the ultimate grass you feel that the ultimate year a new bluegrass will be planted last year.

(cont. on page 11)

SEED TRADE NEWS

WHY MIXTURES? Lawnseed is usually sold as a blend of varieties deliberately chosen to fulfill several objectives. Thus fine fescues are especially useful in the shade and where soils are poor or droughty. Kentucky bluegrasses do well in both sun and light shade, prefer soil of good structure that is fertilized and limed. Bentgrasses endure somewhat boggy, acid situations. More than one variety of any kind of grass may be included, since each variety will be resistant to some diseases that others are not.



Margaret C. Crooks

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GARDEN EDITOR
ASBURY PARK PRESS

RADIO WJLK

February 25, 1972

Dr. Robert W. Schery, Director
The Lawn Institute
Route 4, Kimberdale
Marysville, Ohio 43040

Dear Dr. Schery:

Your file of lawn care stories is the best yet. After a quick glance I find the articles not only interesting but of a bit different nature from the run-of-the-mill. Particularly like the one on comparison of varieties and the list of terms.

I have a Saturday morning question and answer telephone show and it is amazing how many people lack knowledge of the most elementary things. We have a great many new residents who have lived in the city for generations and this is their first experience with growing anything but a geranium on the windowsill.

Again thanks.

Very truly yours,

Margaret C. Crooks

ATTENTION, OREGON COUNCIL!

"Dear Bob, -- I would like to obtain a film on the grass seed industry for showing to two courses in Turf Management in the grass seed production industry. Such a film should encompass geographical and climatic patterns of seed producing areas, method of growing and harvesting and procedures involved in processing seeds. Can you refer me to a source of such a film?"-- R. A. Peters, Prof. of Agronomy, University of Connecticut.

SUPPLEMENT APPEARS

In early February the ASTA office sent several copies of the "Lawns and Gardens" supplement for 1972, prepared under the sponsorship of several trade associations for issuance to newspapers (4,300 major daily and weekly) nationally this spring. Dr. Schery, in behalf of the Institute, provided the several stories relating to lawns and lawn care.

The swimming pool, nurserymen, and power equipment people commanded the front page, but made useful reference to lawns as important in the fight against pollution.

Page two carried an Institute item on the use of fertilizers and pesticides, "Role of Fertilizers, Pesticides Explained". Mowers and swimming pools dominated the next few pages, but lawns a subsequent one ("Crabgrass Battle", "Revitalize That Tired, Scorched Winter Lawn"). These talk of the weed-free nature of modern seed, and timely overseeding.

Miscellaneous items fill the next page, and then again lawn items dominate ("New Grasses Now Ready", "Lawn Seeding Explained", and "Large Choice of Grass Seeds Sold"). The newer cultivars are named individually in the first of these, while lawn patching and upgrading is emphasized in the second. The exciting choices now becoming available in lawngresses for "lawn landscaping" is the theme of the third.

Swimming pools and general gardening again take over the last two pages of this slick, newspaper-format 8-page supplement for the 1972 spring season. We look for widespread pickup of materials included (84 column inches of Institute material). It is most helpful to have such stories circulated to the thousands of newspapers receiving this supplement, without cost to the Institute other than staff time.

ANTI-POLLUTION ITEM

The story "Anti-Pollution, Ward For Weeds?" appeared as part III in the lawn and garden series of Fertilizer Solutions magazine, and has since been widely distributed as a reprint. The story criticizes indiscriminate objection to pesticide usage in the name of ecology, and points out that many practices, particularly fertilization of fine turf, are really more anti-pollution measures than pollutants considering their total affect upon the environment. The story concludes, "Certainly, at the Lawn Institute we recommend regular fertilization of the lawn, the use of phenoxy herbicides to eliminate broadleaf weeds ---".

PROGRESS IN OREGON

Eastern members may not get word through the Oregon Seed League Council Newsletter, about progress being made on the field burning problem. In addition to telling of more efficient communications and a smoothing out of permitted burning procedures, the January letter indicates that there are helpful signs towards utilization of grass straw for pulping. Also, interest is growing in the field burning machine, an experimental model of which was developed at Oregon State University with support of Oregon Seed Growers. Neighboring states of California, Idaho and Washington, faced with restrictions on field burning, are all interested, and the prototype burner is in California for a test on rice straw.

Oregon growers have certainly expended a lot of effort as well as hard cash helping to solve the pollution problems arising from field burning.

INSTITUTE STORY IN ROSE ANNUAL

The 1972 annual of the American Rose Society carried the Institute story All-Purpose Fertilizer Suits Roses to a Tea. Author identification and Institute credit are given. The story deals chiefly with the usefulness of ureaform fertilizers, not only for lawns, but for gardening in general and roses in particular. The mechanism of UF performance is discussed. Turfgrasses are mentioned on several occasions, e.g. "UF is especially suited for fertilization of northern grasses (Kentucky bluegrasses, fine fescues, bentgrasses) in hot weather. The newer disease-resistant bluegrass cultivars such as Fylking, Pennstar, Adelphi and Baron relish steady summer feeding.", and again "Traditional Kentucky bluegrasses, and the many fine fescue cultivars now coming to market (Pennlawn, Jamestown, Ruby, Highlight, Wintergreen, etc.) are not so demanding of nitrogen as are the bentgrasses and elite bluegrasses. They benefit from the restricted, steady stimulation that light feedings with UF provide."

TELLING THE LANDSCAPE PEOPLE ABOUT TURFGRASSES

Two stories were completed for Landscape Industry magazine during the quarter, scheduled to appear at intervals during early 1972. The first of these was entitled "Lawngress Proprietaries Come of Age", and deals with the changed situation since "breeder's rights" has become effective. The history of variety selection and development is reviewed, leading to modern varieties which are named individually. The article concludes, "Obviously, there are plenty of new selections to choose from, in order to satisfy almost any whim in turf landscaping -- we can especially look towards improved summer performance what with disease-resistance being bred into the grass rather than having to be controlled --".

The second story is more of a "how to" piece, entitled "New Grasses Dramatize Lawn Renovation". The advantages of early lawn renovation in spring are cited, and the techniques for accomplishing this discussed. A table of "Grasses Serving Particular Purposes That May be Introduced During Renovation ---" rounds out the presentation.

SPRING-SUMMER LAWN STORY

The March issue of Home Garden magazine carried the Institute story, "A Lawn You'll Have Time to Enjoy". This was the title assigned by the magazine.

The theme of the story is that it is really not too difficult to have a serviceable lawn, -- if one deploys today's great grasses, mows them properly, fertilizes, and provides occasional other attentions.

As the story states, "Who wants a fare of crabgrass-and-dandelions, lawnseed swept up from the haymow, non-powered, cast iron push mowers, fresh manure as your only fertilizer?" These were the hallmark of the "good old days", but hardly satisfy modern needs.

A tabular insert with the story lists individually by variety "Some of the Select Lawngrasses Available From Seed". Kentucky blue-grasses, fine fescues, bentgrasses, and perennial ryegrasses all receive mention, and the Variety Review Board cultivars are named.

STORY FOR AMERICAN HORTICULTURE MAGAZINE

"Turfgrass Cultivars -- What Constitutes a Modern Lawngrass Variety" is the title tentatively given the story prepared for the American Horticulture magazine. The story is due to appear in early spring. The text includes technical discussions as to how lawngrass varieties are chosen, and contrasts their diversity with the more standardized cultivars of woody plants and annual garden species. The sophistication of the Rutgers breeding program is pointed out.

The story is summarized with a chart of "Major Turfgrasses of the U.S.A.", listing representative varieties and their major uses as well as noting something of their genetic constitution and means of propagation.

COMPLIMENTS OF MGA

"Dear Bob: -- The article you did for American Horticulturist is exactly what I wanted; so much so that I have held it for the June issue where we can give it the spread it deserves. I truly appreciate the tailor-made job. About the article for The Gardener. As the Lawn Institute is the only agency I know of not addicted to a hard sell, I am all for using your services. Please write material as you see the need. -- Regards, Dr. J. P. Baumgardt, President, Men's Garden Clubs of America". /Dr. Baumgardt is also editor for American Horticulturist magazine. 7

CEMETERY PUBLICATION REPRINTED

The story "Trends in Turfgrass", under Institute authorship appeared in The American Cemetery last autumn. Complimentary copies of the magazine were not received until January, which delayed reprinting of the story. Appearance of this story and its dissemination should help acquaint cemetery maintenance people with new turfgrass developments and the latest in turfgrass varieties. An additional follow-up story is scheduled for the same magazine in spring.

GOLF SUPERINTENDENT STORY

An Institute story appeared in the January issue of Golf Superintendent magazine, entitled "Lawn Institute Tests Low-Growing Bluegrasses". A picture, close-up, of a section of mixed Highland bentgrass and Fylking bluegrass sod emphasized the write-up. The Institute was credited in the text and in the photo caption. The story opens, "A new breed of fairway bluegrasses adapted to low mowing such as is generally accorded only bentgrasses is opening up 'a whole new ball game' for fairway seeding in cool climate areas, --". Several new low-growing bluegrasses are named individually, and the colonial bentgrass varieties with which they may be combined.

STORY IN TURF BULLETIN

The Turf Bulletin, of the Massachusetts Turf and Lawngrass Council, carried in the spring number as the "Featured in This Issue" item, the Institute's "Slow-Release Fertilizer For Lawns". The story was essentially as reprinted from Fertilizer Solutions magazine, and carried both author identification and Institute credit. You may recall that the story opens, "Fortunately, most plant life, and certainly good lawngrasses (such as the outstanding bluegrasses and fine fescues), are a tolerant lot. ---".

RENOVATION STORY REPRINTED

"Try Autumn For Lawn Renovation" was the title of a story provided Fertilizer Solutions magazine, volume 15, no. 5. Fertilization is recommended for "reviving tired lawns", and chemical applications useful in the renovation process are discussed. The prominent turfgrass species are listed in a boxed insert with the major varieties itemized and provided thumbnail sketches.

SOD GROWERS STORY

The custom story, "Seed Mixtures For Sod", with three photographs, appeared in The Sod Grower, volume 1, number 4 (Sod Growers Association of Michigan, winter issue). The story bore author and Institute identification, and one of the photos was used as cover illustration.

The story suggests mixtures for sod, as a responsible service to most sod purchasers. "Research has long proved the advantage of such diversity (whether genetic, or mechanical by means of mixing different varieties) in order to forestall epidemic disaster." Several top varieties are named, and a tabular list given entitled "A Sampling of Grass Seed Choices from which to Compound Mixtures".

"THE CHANGING LAWN SCENE" DISTRIBUTED

The story of this title for Flower and Garden magazine has been reprinted for distribution. The opening theme, "--- that those who have lowered their sights for lawns out of reaction against pesticides -- are being unrealistic" carries into a section devoted to "Choosing Lawngrasses" (in which modern varieties are named individually). Fertilization and mowing wind up the discussions.

AMERICAN HORTICULTURIST MAGAZINE

A greatly expanded membership and modernized format marks the change from the old American Horticulture magazine to the American Horticulturist. Liberal use of color is planned by new editor John Baumgardt. An Institute story on The Selection of Turfgrass Varieties is scheduled to appear in the new magazine this summer.

STORY IN IOWA GOLF COURSE SUPERINTENDENT'S REPORTER

An adaptation of Institute materials, under the title "Top Turf-grasses", appeared in the January Golf Course Superintendent's Reporter. Merion was characterized as the "first of the new premium breed", now being joined by Fylking, Pennstar, Baron, etc. Fine fescues named included Illahee, Jamestown, Pennlawn, Rainier, Ruby, Cascade, Golfrood and Highlight. The possibility of blending low bluegrasses with colonial bentgrass was discussed, viz. "At the Lawn Institute Fylking bluegrass with Highland, Holfior and other colonial bentgrasses has performed well when mowed at a half inch or so."

RESORT MANAGEMENT INFORMED

"Lawns on the Upgrade" was the title of a story sent Allen Fagans, editor and publisher of Resort Management magazine. This is due for publication in spring. Lawn seeding is covered as a section of the story, with a tabular insert citing the major lawngrasses and representative varieties by name. Means for sprucing up the lawn are discussed, featuring fertilization. A few photos were provided the magazine for illustrations.

MEMBERS REQUEST REPRINTS

During December, "Anti-Pollution, Ward For Weeds?" (Fertilizer Solutions magazine) was reprinted and mailed to members. Many made widespread use of the item. Additional copies can be had upon request.

PK PICKUP BY SEED TRADE NEWS

Appearing on the pages of the February 9, 1972 issue of Seed Trade News was the item "Why Mixtures?". In part it reads: "-- fine fescues are especially useful in the shade -- where soils are poor or droughty. Kentucky bluegrasses do well in both sun and light shade -- Bentgrasses endure somewhat boggy, acid situations. -- since each variety will be resistant to some diseases that others are not."

March 8 "Perennial Ryegrasses Among New Additions to Lawngrass Roster" appeared. Merion, Pennlawn, Exeter, Penncross and other varieties of familiar species are cited.

AN APPRECIATION

"Many thanks for the valuable information on lawn making. I am using much of it as a feature article in Mar. 26 STAR-LEDGER garden page." Alice Dustan, Kollar, Garden Editor.

SEASONAL PRESS KIT ISSUED

The spring, 1972 Institute press kit was mailed in mid-February, to select newspapers, editors and columnists. Response seems excellent. Included were three lawn story reprints for background, and 25 pages of original material. The covering letter offered supporting photographs upon request. A few story titles: Lawn Lingo; Fescue to the Rescue; Nature's Turf Triumphs; The New Bluegrass Blitz; Improved Ryegrasses; Lawn to the Fore; Your Lawn, Center for the Performing Arts; The New Bent-grasses; Non-Polluting Lawn Food; Penncross Uses Expand; Life-Supporting Lawn; Of Highlight and Highland.

EXTENSION AGENT REQUESTS PK

Steve Besse, Lane County Extension Agent, Oregon State University, states: "It would be very much appreciated if you could send to me the folder containing lawn information which you recently distributed. This information could be very helpful to me in my work in counseling with seed growers and seed dealers."

INSTITUTE QUOTED

The Institute was again referred to as lawngrass authority concerning new named varieties, in George Abraham's syndicated column "The Green Thumb". Under the headline "Bluegrass Improves With Each Vintage", this column appeared in the Columbus, Ohio Dispatch on Sunday, January 30, and nationally as well on or about this date. Abraham states, "--- I have been baffled by the new varieties of Kentucky bluegrass which come out each year --- I took this matter up with Dr. Robert Schery, Director of The Lawn Institute --- he tells us there is --- advantages to all these new grasses. Before they are accepted for release to the public they have to prove themselves reasonably disease resistant, --- also, most of them are denser under low mowing than the traditional bluegrasses, thus help fight weeds ---". Some of the new varieties are named individually.

EXTENSION HEARD FROM

"Thank you for the latest releases of Public Information. I always find them a handy reference. I believe my secretary has written to ask for additional offerings on varieties. -- Vermont is redoing its lawn publications and our editor would like a good black and white photo -- credit would of course be given." -- Winston A. Way, University of Vermont.

APPRECIATION EXTENDED INSTITUTE

"Enclosed are four copies of the 1972 Lawn and Garden newspaper supplement that ASTA has produced --- Your contribution of articles and pictures helped to make ASTA's participation in this project possible. Thank you for your help."

Robert J. Falasca, Ex. Vice President

INSTITUTE APPEARANCE ON CAMPUS

On behalf of the Institute, Dr. Schery led off with the first of six presentations sponsored by the Office of Continuing Education, Ohio University, on the Chillicothe Campus, February 3. Subsequent weeks the topics of Perennials, Home Gardening, Roses, Trees and Shrubs, and Annuals will be covered by other experts in the field. The series, entitled "The Greening of Our Worlds", is an attempt to bring greater understanding to adults interested in horticulture of the many possibilities lawn making and gardening offers. As the Prospectus reads, "Perhaps in our world we take for granted plant life, assume it will be there and forget the functions plants perform in our worlds. Each person should help make his world greener, and this series is designed to do that." The Institute contribution was very well received.

PUBLICATION EXCHANGE UNDER WAY

A reprint exchange among members of the Turfgrass Division of the Agronomy Society of America has been arranged through Dr. Jim Beard, resulting in receipt of many technical reprints at the Institute office. Pertinent items will be reported upon in Harvests from time to time. In exchange the Institute is mailing 31 reprints of stories authored by Dr. Schery.

LITERATURE FOR UNIVERSITY LIBRARY

Dr. A. Amato, Sam Houston State University, requested of the Institute: "I am in the process of establishing a reference reading library dealing primarily with turf -- for students here -- I would like to obtain from your Institute -- printed materials -- which will be greatly appreciated and rightfully acknowledged." The Householder's Guide to Outdoor Beauty, and an assortment of reprints were sent to Professor Amato.

WORD FROM TURKEY

"Thank you very much for your very helpful and informative letter of 8 February and the enclosed 'portrait sheets'. I am very grateful and when we have done some work here on lawngresses I will let you know the results." P. A. Town, United Nations Development Programme.

INSTITUTE APPRECIATED

Ted Miller, New Jersey, is entering the lawn maintenance business, and has corresponded with the Institute several times. He acknowledges: " -- It's nice to know that there are people such as you, that are willing to help someone like myself who is just starting out in business, with information or sources to such information and become better informed in his profession --".

FROM AFAR

"We were given your address by our local United States Information Centre, and we would be pleased to receive any advice you may be able to offer on all aspects of turf care --". United Services, Johannesburg, S.A.

PLANS PROCEEDING FOR REVISION OF THE LAWN BOOK

Dr. Schery met with senior editor Constance Schrader of Macmillan, in New York, in early January. Revised copy has been approved, and illustrations are being assembled for a brand new revision of The Lawn Book, which is hoped will be more attractive and more widely promoted than was the first edition. The publisher feels it is impossible to ready the manuscript for spring publication in 1972, and definitely prefers a spring release date rather than autumn. At this point it seems as though the revision will not hit the book stalls until spring of 1973, even though everything is ready to go so far as author compilation is concerned.

ADDITIONAL PUBLICITY

A letter from Paddock Publications provides additional entry from the Chicago area garden pages, viz. " --- We would appreciate being added to your mailing list for 1972 releases. We anticipate that 'Garden Talk' (2-5 pages each Friday) will run for about 24 weeks from April through July, and resume for about 6 weeks in the fall. -- Thank you for your assistance."

PAPERBACK STILL IN DEMAND

Many times the Institute receives numerous questions in one letter, thus we offer The Householder's Guide to Outdoor Beauty (Pocketbook), Puddephatt Landscaping, from Little Rock, Arkansas, for example, requested the book to assist in their landscaping activities.

GARDENING GUIDE

A sample of the new 1972 edition of Popular Gardening "Complete Gardening Guide" was received from editor J. R. Connor recently. In magazine form, this elaborately illustrated guide covers most aspects of landscaping and gardening around the average home. Several Institute photographs were utilized in the sections dealing with lawns. The text seems unduly slanted to northeastern conditions, and the sections on lawns appear rather naively written.

FARM PREDICTION

The Kiplinger Agricultural letter predicts farm income to rise to 80 billion dollars by 1980, but that only 0.6 million farmers will slice the pie. There is a 40 percent higher gross than today, but obviously the expectation is that elimination of the small farmers so noticeable during the 70's will continue.

AMERICAN MEN AND WOMEN OF SCIENCE

The 12th edition of American Men and Women of Science is in the process of preparation by the Cattell Press. The Institute will be represented through the listing of its director, Dr. Robert W. Schery.

SEED QUALITY SYMPOSIUM

The December, 1971 issue of HortScience, carried as a "symposium insert" a series of papers relating to the quality of vegetable seed. Parts of the discussion, particularly items relating to physiological fundamentals, are pertinent to all types of seed, not just vegetables. A few points worth mulling over might be these (taken primarily from papers by Harrington, Pollock, and Morris).

Dry seed stores well, but germinates slowly; it is perhaps advisable to place seed prior to planting in a cool atmosphere with high humidity.

Medium and large seeds, and those with high density, exhibit more vigor than the extremes. When the less-than-ideal seed is removed it is generally unsalable, and therefore the select seed must receive a higher market price.

Ethylene gas has been found to restore vigor in seeds where vigor is declining; perhaps seed treatment with ethephon has merit?

Normal seed testing indicates response under ideal germinating conditions, whereas actual planting almost invariably finds some factors sub-optimal. Yet it is difficult to predict just what factors are limiting, and test for them.

Moisture content of seeds at time of planting is critical to the stress sensitivity of seeds. Seeds at 8 percent moisture are very sensitive. Seed moisture at planting time must be considered a component of vigor.

Treatments are becoming more prevalent that aid in vigor, and vigor must no longer be regarded solely as a genetic factor. Certain salt treatments, for example, have increased temperature tolerance of tomato seeds.

Different cultivars rate differently in vigor and tolerance. One type of seed may germinate poorly and develop slowly if planted in cold soil in the early morning, but grow well if planted at mid-day when the soil temperature is several degrees warmer. The same relates to depth of planting. Apparently some seeds can exhaust their energy before the seedling emerges and photosynthesis really starts, something that could occur from planting in soil that is too cold or with the seed buried too deep.

Since varieties differ in germination and longevity (indicating genetic inheritance), therefore greater longevity should be transferrable to cultivars through hybridization techniques.

SOILLESS TURF

A system of growing sod has been advanced in Great Britain whereby seed is floated on a "plastic" medium above a slurry, the seed said to sprout quickly and the roots knit into a removable sod within five weeks. No roots are cut as the sod is lifted for relaying. A news note on this appeared in the March Golf Superintendent magazine.

MORE ON BLUEGRASS PHYSIOLOGY

Research conducted at Virginia Polytechnic Institute concerning the behavior of Kentucky bluegrass cultivars under high temperature is reported in Jan-Feb Crop Science. The cultivars adjusted to a low level of carbohydrate production at high temperatures, but this was materially increased if respiration was decreased by restriction of oxygen. The strains differed in the intensity of their respiration, and those with the best growth at high temperatures generally had higher photosynthesis and lower respiration than did others. It appears that such genetic differences in photosynthetic efficiency should permit the selection of bluegrass strains better adapted to high temperature stresses than others.

Of the ten cultivars tested, Merion and Belturf exhibited high carbon dioxide fixation but low photorespiration, and these along with an experimental (BA6124) appeared to be the best adapted genotypes to high temperature. Northern strains, such as Delta and Nugget, had the slowest growth under shift to high temperature. Fylking, joined the Merion group in exhibiting the highest yields after four weeks of high temperature, and also exhibited the least decline in growth at high temperature. On the other hand, Pennstar, like Nugget, was low in photosynthesis, carbohydrate level, and growth at high temperature. In most respects Windsor, Minnesota-6, and New Jersey P-56 were intermediate in foliar yields and foliar carbohydrate content.

The article does not make entirely clear whether these physiological measurements indicate any preferential adaptation to warmer climates among the existing cultivars. The only suggestion made is that genetic mechanisms do exist relating to degree of respiration and photosynthetic conservation, which should prove useful for hot weather adaptation. The authors still advise special management techniques during periods of high temperature to conserve carbohydrates (limited use of nitrogen, high and less frequent clipping, syringing, etc.).

BLUEGRASS UNDER TREES

A study on the competition between Kentucky bluegrass and tree roots, by C. E. Whitcomb, Florida, is reported in the March, 1972 Golf Superintendent. In this study honey locust and silver maple tree roots were grown into isolated soil containers seeded with Kentucky bluegrass. The grass received ample Nitroform fertilization, so that competition for fertilizer should not have been a serious limiting factor. Competition between tree roots and grass roots was clearly evident, the root system of bluegrass being severely restricted where tree roots were growing (foliage was only slightly limited, however; in essence the same amount of foliage was drawing upon a severely limited root system so far as the bluegrass was concerned). Silver maple was more repressive to bluegrass than was honey locust. The study did not pretend to isolate the repressing mechanism, which may have been competition for oxygen, excretion of an inhibiting substance, or some other factor or combination of factors. But it does seem that unthrifty grass under trees is not entirely due to shade or disease, since the bluegrass root restrictions in this experiment prevailed regardless of ample light and freedom from pathogens.

OHIO TURFGRASS CONFERENCE

The Proceedings of last December's Ohio Turfgrass Conference has now been issued. Included are a wide variety of presentations, by guest experts as well as Ohio State University personnel. On the whole the presentations are thorough and authoritative, and the volume will prove useful as a reference for those engaged professionally in turfgrass work.

Institute members may be interested in the ranking accorded bluegrass varieties. The list is scanty, however, compared to those offered in other states, and is based upon performance during 1965-68. Important recent varieties such as Fylking and Nugget are not even considered. In overall rank Warren's A-20 comes out on top, primarily because of its excellent leaf spot and smut resistance. Merion rates only 6th, primarily because of smut attack. Pennstar was 2nd, Windsor 3rd, Campus 4th, Prato 5th, with the "common" types lower than 6.

It is encouraging to find such statements as this (John Harper's discussion of Seeding Methods), "Low quality seed of inferior species or varieties is no bargain even though seed cost per pound is small." Harper is also responsible for a rather detailed discussion of Urea-formaldehyde as a Nitrogen Source. Entomological discussions by OSU specialists reflect some of the uncertainty currently plaguing pesticide recommendations. Webworms seem to be the major insect problem with lawns in the state. Dean Roy M. Kottman winds up the Proceedings with a lengthy condemnation of the hysteria engulfing the nation with respect to use of pesticides and fertilizers.

NEW ADVICE FROM ENGLAND

An article entitled "The Turf Surface", in Parks and Sports Grounds (England), stated: "In the past it was considered that a turfed area produced a playing surface of good quality sooner than a seeded area. This view is no longer held by many ---". Turfing, here, refers to what is known as sodding in the United States. One of the chief objections to sodding is the slightly uneven surface that occurs even under the best circumstances. Better rooting, often earlier, is also attributed to seeded grass as compared to sod; the seeded turf is thought to wear better. The article, authored by Dr. W. A. Adams, goes on to list the grasses found persistent under typical conditions prevailing on various sports grounds. Poa annua is a seemingly universal component, with bentgrasses and Poa trivialis prominent on low mowed turfs, perennial ryegrass and timothy additionally on taller mowed turfs, and occasionally bluegrass.

BERMUDAGRASS PHYSIOLOGY

R. E. Burns, Georgia, reports upon response of bermudagrass to temperature, light intensity and day length, in the Jan-Feb Agronomy Journal. "Rooting" was severely limited by low temperature, almost as severely by low light intensity, but was not affected by day length. Short days and low light intensity restricted reserve carbohydrates, but cooler temperature tended to conserve food reserves. Burns concludes that light intensity and temperature are as important as is day length in governing the performance of bermudagrass plantings.

SEED TECHNOLOGY REPORT

Miscellaneous Publication 1207, USDA, has been released, dealing with the questionnaire submitted many months ago to groups concerned with seed technology (not only the professional seed testing societies, but the ASTA as well). The chief value would seem to be an assessment of what problems each professional group regards as most pressing in seed technology research. All groups regarded research on vigor and preservation of quality in seed as being high priority needs. Professional seed testing societies placed more importance upon analytical purity research, while ASTA thought storage, production and processing research to be of higher priority. Among single research objectives, how seeds react to changes in the environment during germination was the highest scoring project. Details can be had by requesting the report (20 cents) from the Superintendent of Documents; it was assembled by L. W. Woodstock and Dan Niffenegger.

BLUEGRASS SEED INDUCTION INVESTIGATED

Canode et al, Washington state, report on Initiation of Inflorescences in Cool Season Perennial Grasses, in Jan-Feb Crop Science. Conclusions with four cultivars of Kentucky bluegrass are that induction of seedheads begins early (when subjected to short day length and cool temperatures), but that the longer it persists up to January or February (depending upon the cultivar) the more frequent will be the inflorescences thrown. Seed yields correlate with the number of inflorescences. Dissections showed that changeover to floral development occurred by January 22 for Delta, February 5 for Newport, February 12 for Cougar, and February 26 for Merion cultivars in the test area. These findings, confirmed in the greenhouse, essentially parallel Institute experiences with natural bluegrass in the Midwest, in investigations conducted a number of years ago.

ABSORPTION OF "POLLUTANTS" FROM THE AIR

Reports appearing in the February 18 issue of Science note how ammonia (tagged with nitrogen-15) is absorbed from the air by seedlings, to the extent of nearly 50 percent when the concentration is only one part per million. This was entirely independent of fertility level of the soil. There was some variation of the rate diurnally, and from species to species (corn, grass, was a chief test organism). Apparently this is indicative of a broad tendency for grass and other plants to absorb materials from the atmosphere, perhaps act as a sink for pollutants (such as in the case of ammonia). Here is additional ammunition for "Plant America" enthusiasts.

MORE REPORTED ON BLUEGRASS SEED PRODUCTION

C. L. Canode, in the March-April Agronomy Journal, reports additional studies on bluegrass seed production in Washington. Various cultivation treatments were checked out, mostly without beneficial yield influences. Mechanical removal of aftermath did not reduce seed yields so much as did burning in the second and third crops, but gave lesser yields in the fourth and fifth crops.

COMPETITION FOR PERENNIAL GRASS

A study by Fleet, Rutgers University, on the interactions of annual plants (principally yellow foxtail) and establishment of perennials, would have bearing for the seeding or renovation of lawns. The study was reported at the AAAS meetings in Philadelphia in December. The research indicates that shading of the perennials by the rapid-growing foxtail is an important cause of perennial repression, but tissue analyses and radio carbon tracer studies indicates that there is considerable competition for soil nutrients and water as well. There was no evidence in these studies of toxic metabolites being secreted by the foxtail into the soil which were inhibitory to the perennials.

REASSURANCE FROM ENGLAND

A story entitled Herbicide Fears appears in volume 37, no. 1, of Parks and Sports Grounds, published in England. Investigations by the Weed Research Organization indicates that "extensive use of herbicide may not be causing a harmful build up of chemicals in the soil after all." Applications of several generally used herbicides were tested, with simazine (one of the most persistent) chosen for intensive investigation. Applied at 2 lbs. per acre, 10 percent or less of simazine remained after 7 months at most of the test sites. The article states, "The experiments also suggest that there is no basis for fears that herbicides may be affecting water supplies. ---".

PESTICIDES INFLUENCE THATCH

A report entitled "The Effect of Pesticides on Thatch Accumulation and Earthworm Populations in Kentucky Bluegrass Turf" appeared in the February, 1972 of HortScience, authored by University of Illinois researchers. The build up of thatch materially increased when pesticides were used, markedly so with chlorinated hydrocarbons such as dieldrin and chlordane, mildly so with the insecticide carbaryl. PMA (a mercuric fungicide) seemed not to increase thatch. Where ample earthworms were active there was no build-up of thatch.

SPECIES INHIBITIONS

Research evidence continues to accumulate concerning the chemical inhibition of one plant species by another. A study by del Moral and Cates, Washington, is reported in the autumn, 1971 issue of Ecology. Forty different plant species were investigated for inhibitory substances that affect growth of other plants (barley, brome, and douglas fir were the test species). Only three of the forty species exhibited no influence in inhibition of barley, while two species inhibited its growth completely. Conifers inhibited growth by nearly two-thirds, broad-leaf plants by only one-third, on the average. The authors believe that chemical inhibition of the suppressed species results primarily from waste products of the dominant species. In any event, here is abundant new evidence of the chemical interplay between species, a process which certainly must be influential to a greater or lesser degree with mixtures of plants in lawn seedings.

NEW LAWN WEED CONTROL ANNOUNCED

Amchem, Ambler, Pennsylvania, has announced that their new herbicide (A-820, a dinitroaniline) appears effective for crabgrass control in turf, as well as being used for various crop plants. About 4 lbs./A a.i. is recommended for cool season turfgrasses such as bluegrass and fescue. Fescues seem a little more susceptible to injury from the product than do bentgrasses or bluegrasses. Investigations have not been extensive enough yet to determine how effective A-820 is with weeds other than crabgrass, but there are promising indications that the product may serve for control of *Poa annua* and other annual grasses.

ANTI-POLLUTION QUOTES

An article by Dr. F. O. Lanphear, Purdue University, carried in the January Park Maintenance, provides some readily understandable statistics on the value of plants in controlling pollution. For example, in his St. Louis study, air temperature on a hot summer day was 92° F in a city park, but 10 degrees hotter in the downtown business district. Lanphear says that the greater St. Louis area releases into the atmosphere nearly a half million tons of sulfur dioxide annually; calculating the maximum ability of vegetation to absorb sulfur dioxide, five percent of the land space should absorb this amount of pollution functioning at top efficiency (under such circumstances trees would be more important than grass, of course).

MORE ABOUT WEED ANTIBIOSIS

Wisconsin researchers report in the January Weed Science on deformities caused to the roots of crop plants (cabbage, tomato) by weeds. Probably the same sorts of interactions occur with grass. In this study some weed species inhibited cell elongation. Others caused disruption of various tissues or induced enlargement of cells and disorganized root tissues. It is not only the chemicals that man applies which influence vegetation, but there seems to be constant "chemical warfare" carried on by plants themselves.

GRASS ROOTING

A study by Wilkinson and Duff, Rhode Island, reported in the Jan-Feb Agronomy Journal, indicates that there is no appreciable difference in amount of rooting of *Poa annua*, Kentucky bluegrass or creeping bentgrass, over a range of soil densities. The authors conclude that presence of *Poa annua* is not indicative of a compacted soil.