

BETTER LAWN - - HARVESTS

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Better Lawn & Turf Institute

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I. ANNUAL MEETING

NEW TRUSTEES, OFFICERS ELECTED

At the annual meeting held in Salem, Oregon, Friday, June 20, 1969 the following trustees were elected to the Board of the Better Lawn and Turf Institute:

James L. Carnes, Salem, Oregon
Roy Edwards, Jr., Kansas City, Missouri
Ted Freeman, Madras, Oregon
Amos Funrue, Silverton, Oregon
Arden Jacklin, Dishman, Washington
Howard Mader, Salem, Oregon
Edward Mangelsdorf, St. Louis, Missouri
Gordon Newton, Minneapolis, Minnesota
Robert Russell, Jamaica, New York
Edward Spears, Paris, Kentucky
E. R. Townsend, Buffalo, New York
Evart Vander Meulen, Salem, Oregon
Gordon White, Salem, Oregon

In addition 2 board members are to be named by the Fine Fescue Commission and 1 by the Highland Bentgrass Commission, following their respective annual meetings.

The Board of Trustees elected as its officers for the coming year, Mr. J. L. Carnes, president; Mr. Amos Funrue, vice president; and Mr. Howard Mader, secretary-treasurer.

The annual meeting also amended the Articles of Incorporation to allow certain changes in the by-laws, whereby the Board of Trustees has been enlarged to not less than 13 nor more than 25 members, and 4 classes of membership established having variable dues structure. By-laws changes also outline a specific system for electing the Board of Trustees.

Mr. Scott Lamb, 4491 Liberty Road, Salem, Oregon 97302, has been assigned administrative duties in behalf of the officers and membership.

INSTITUTE ANNUAL MEETING, SALEM, OREGON, JUNE 20-21, 1969.

Members attending the annual meeting in Oregon this year enjoyed not only an enthusiastic business session showing good progress, but a pleasurable and informative tour of producing areas in the Willamette Valley. In addition to presentations by the officers and staff, the annual meeting was marked this year by noteworthy outside speakers, including a banquet presentation featuring Bob Russell of the J & L Adikes Company, New York, and afternoon sessions by Dr. Gene Nutter, publisher of Turfgrass Times, Florida, and Arden Jacklin of Dishman, Washington.

INSTITUTE ANNUAL MEETING -- Continued.

Walter Leth, Director of Agriculture for Oregon, provided an excellent background for subsequent discussion, in his opening welcome that included a resumé of the state. Jay Glatt, Chief of Market Development, Oregon Department of Agriculture, gave a perceptive review of the export situation, especially with regard to Japan, as luncheon speaker June 20. Dr. Ritchie Cowan, head of the Farm Crops Department, Oregon State University told about the forthcoming International Grasslands Conference being held in Oregon June 23-27, 1971 (Saturday and Sunday will feature fine turf), and the county agents from the 3 counties through which the June 21 tour was routed provided detailed information relating to their particular areas.

The meeting opened with a call to order at 9 A.M., and the welcome from Mr. Leth. After approval of the minutes and treasurer's report, representative of supporting organizations indicated plans for the year ahead. The secretary then reviewed proposed changed wording in the Articles of Incorporation, to permit later by-law amendment affecting classes of membership and means for electing trustees. The changes were voted unanimously. Director Schery presented his review of the year, included for the record elsewhere in this issue.

In the afternoon formal action was taken on revision of the by-laws. After minor changes in wording and clarification by attorney John Horton, amendments to Articles III, IV and V were passed without dissent. These changes permit creation of 4 classes of membership, -- Grower, Contributing, Dealers-Brokers-Processors, and Supporting, -- with appropriate dues structure. Annual meeting time is clarified (May or June, at the call of the president) to conform with Pacific Northwest needs, and a scheme established whereby the board of trustees will appoint at least 7 trustees (including openings that are automatically accorded sponsoring commissions), while the membership at large will elect 6 additional trustees annually for infusion of new talent to the Board. Article V, as changed, now reads that there shall be not less than 13 nor more than 25 trustees, the number fixed by resolution of the Board; currently 16 trustees serve.

Afternoon business was rounded out with election of new trustees and officers (see separate item), Dr. Nutter's talk on "The Impact of Artificial Turf", Arden Jacklin's talk on "The Future of Turf Sod", and review of the international turfgrass situation including the forthcoming trip by Dr. Schery to the First International Turfgrass Conference in England. The evening banquet presentation by Bob Russell is included in a separate item.

Members may be interested in a few highlights from the comments of the other speakers. Walter Leth reported that agriculture along with forestry is one of the two most important industries in Oregon, in one form or another employing about 4 out of each 10 residents. The value of the grass seed industry in the state is reckoned as nearly 35 million dollars annually. Agriculture in the state is exceedingly diversified, reflecting a climate that varies from 160 inches of rainfall to 5 inches in various sections. The potential to produce is far from limiting, the bottleneck at present being marketing; as marketing opportunities are created, agriculture in Oregon can expand to fill all foreseeable needs. Since with mechanization the farmers have become only about 5 percent of the total population, the need for "explaining" agriculture to the urbanites who may never have seen a farm is urgent. Oregon is particularly proud of the leadership shown in lawn seed production.

ANNUAL MEETING -- Continued

Reporting for sponsoring groups, Amos Funrue stressed the intense interest growers have in the export market these days, what with restrictions on export seeming to be shaping up in Europe. The Fine Fescue Commission, along with other groups, is participating in maintaining a representative in Europe in order to be close to the situation. Gordon White, for the Pacific Northwest Bluegrass Association, spoke of plans for another vote for a Bluegrass Commission (the previous vote received a majority, but not the needed two-thirds), preceded by a greater educational campaign among the farmers. He noted the support his association lends the college and for field burning research, but indicated it will also meet its commitments to the Lawn Institute. Bob Humphrey, for the Highland Bentgrass Commission, reviewed some of the field sanitation problems and, of course, is highly interested in the export market. He thanked the Institute for technical assistance in preparation of brochures during the year. Arden Jacklin, for the Merion Association, favored an Oregon Bluegrass Commission and reconsideration of fine-leaf ryegrass participation. Reports from the Midwest, and by Mr. Habstreet of Minnesota, indicated limited natural bluegrass production because of low prices. Mr. Carnes reported upon an expression of interest in the Institute by the bermudagrass growers.

Dr. Nutter, in a presentation accompanied by slides, emphasized that the turfgrass industry is expanding rapidly, and badly in need of leadership such as the Institute could provide. He expressed dismay that here in the heart of grassland seed production several athletic fields were turning to artificial turf.

Mr. Jacklin pointed out that change was rapidly being thrust upon the turfgrass seed industry, and that there was no escaping the demands levied by the purchaser, especially so in the sod industry. It is to be expected there will be increasing demand for sod-quality seed free of offending crop and weed seed (even in cases where trouble may be largely imaginary), and that sales will increasingly be based upon 25 gram samples. He foresees in the not too distant future varietal identification by such means as chemical and electronic testing, with assessment of inherent vigor and carry-through genetic quality as well.

ANNUAL MEETING FIELD TOUR.

The Institute is especially grateful for the fine field tour held in conjunction with the annual meeting, organized by a tour committee consisting of Bob Humphrey, Amos Funrue, Gordon White, Clive Cook, Oscar Mikesell and Hollis Ottaway.

The tour began with examination of large equipment and custom-built devices on the farm of Norman and Neal Reiling. Fine fescue and bluegrass plantings were observed on the farms of Don and Ivan Hanson, Wally Zielinski, and Henry and Don Peters. A most interesting stop was made at the commercial strawberry producing farm of Bob DeSantis. Following a brief stop to inspect Silver Creek Falls, the tour enjoyed the hospitality of Henry Hansen for a chicken barbecue inspecting fescue and Christmas tree plantings on Hansen's farm, and after lunch Highland bentgrass plantings of Dave Doerfler and John Duerst.

Next came a thorough inspection of the Redeturf Sod operations in Albany, courtesy of Richard Jenks. Beautiful Highland bent and Newport bluegrass plantings were visited at the Smith Brothers, John Miller, and LeRoy

THE LAWN INSTITUTE 1968-69 ANNUAL REPORT TO THE TRUSTEES BY THE DIRECTOR

The Better Lawn and Turf Institute continues, I feel quite successfully, its public relations program in behalf of the lawn seed industry, and particularly those top quality grass species which support it. I say "public relations" advisedly, rather than "publicity" or "advertising"; good public relations has broader and deeper significance. To borrow from one of our supporters, Bob Stiffler of Borden, -- "When boy meets girl and tells her how lovely she is, that's sales promotion. If somehow he impresses upon her how outstanding he is, that's advertising. But if the girl seeks him out because she has heard what a splendid fellow he is, that's public relations." To an enviable degree the Lawn Institute has achieved this status, after long years of perseverance, supported by your respective organizations and others that have preceded you. By way of example, this year we were "sought out", or at least accepted, for statements, opinions, reviews and stories, by such well-known national media as Time Magazine, the National Observer, and Canadian Homes Magazine; by the National Garden Bureau, the National Lawn and Garden Week steering committee, and the Roadside Short Course; by Parker Sweeper and Borden Chemical Company for nationally distributed press releases; by the Midwest Golf Course Superintendents Association, Commonwealth Edison, and syndicated columnist Goerge Abraham; even by Dan Clancy of the Columbus Dispatch for a featurette which appeared in that newspaper. These and other examples surely indicate some public relations success in spite of little sales promotion and advertising expenditures.

When such a program runs smoothly for a number of years it becomes taken-for-granted. Current participants sometimes forget the years of hard effort needed to gain public acceptance. Some don't realize how costly it would be, starting from scratch, to achieve recognition and build the technical background unique with the Institute. A few lose sight of the big picture, becoming concerned, understandably, with their own limited interest. Because not everyone reads all of Harvests, I would like to put on record again the plea expressed "In Unity There is Strength" from the January issue:

"The 'share' of attention given a particular interest is sometimes a consideration with participating groups. It is only human nature to react in favor of ones own interests, perhaps feel they are 'diluted' when other interests are accorded equal attention. But this is not so in a public relations effort such as the Institute attempts. In fact emphasizing a single grass or position at the expense of others would be a disservice, greatly weakening its publicization. Here's why.

"Were the Institute to stress a single grass, for example, its message would be ignored as prejudiced and unrealistic; press releases would not be picked up by newspapers, and stories not accepted by magazines. The Institute would be marked as favoring a single selfish objective, not the greater objective of 'quality lawns'.

"While a particular species or variety is foremost in importance to its grower, recipients of Institute releases couldn't care less. The user's interest is solely in the end result, good turf. Performance counts, but a particular grass only insofar as it augments performance. It is common knowledge that lawn performance comes from many kinds of grasses and varieties matching particular conditions, and they are

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usually used in blends. Just as a particular grass merits attention only as one component of a lawn program, so also maintenance matters (such as fertilization) must be considered to assure performance and the interest of the consumer.

"Combining the strengths of several quality positions provides a much more interesting and plausible image. Indeed, the only claim to consumer attention, 'quality lawns', would be useless if fragmented into fits and snatches of special interest. But when these interests combine, and blend into an honest presentation of worth to the user, the message is heeded. While advertising exaggeration is discounted, essentially the same message well blended with others makes for creditability."

The fiscal year began with a bang, all of us stimulated by the enthusiasm shown here in Oregon by the new officers and trustees, and the splendid program arranged for the annual meeting and tour. Greetings by Governor Tom McCall launched a day of profitable policy discussions: the field trip on the day following was indeed a highlight, the hospitality shown by all sponsors and cooperators second to none. The Institute is indeed grateful to the Pacific Northwest Bluegrass Association, the Oregon Fine Fescue Commission, the Highland Bentgrass Commission, Oregon State University and the Extension Service, and particularly to our hosts at the various stops throughout the day, such as Bill Rose, Lud Hagen, Bill Tucker, Eddie King, Don Jaquet, the Smith Brothers, Paul Pugh, and Roy Bowers barbecue in the evening. With a send-off like that into the new fiscal year, your Institute just has to be assuming its expected place in the society of effective trade organizations. We are all most grateful.

I have described the operating routine of the Institute so many times in the past, that I hate again to take the time of veteran trustees. These activities are reported in Harvests, mostly item by item as they occur. I will summarize the record quickly, and assume it is creditable that our routine operations go smoothly enough nowadays, to need not pester the officers with more than the usual problems and decisions.

Press Kits. -- Press kits are issued each spring and autumn, one massive mailing each time (rather than the perhaps preferable, but more costly, breakdown into several smaller mailings). Twice during the year we photocopied representative clippings from these mailings, and included them in Harvests; so you have seen the end results. Until a couple of years ago we monitored these clippings nationally, and found we were gaining in the neighborhood of 10,000 column inches of newspaper space (verified by the clipping service; undoubtedly equally as much was missed). Purchased as advertising, this space would have cost more than the entire Institute budget for the year. We can assume that such acceptance continues, even though hiring of a national verification has now become too costly and involved. Keep in mind, too, that these stories have a secondary influence, inspiring similar releases by county agents, columnists and garden writers, who sometimes even adopt the very wording of our releases. Many times the backup reprints which lend authority to the press kits are used or quoted directly. Although all of this is rather routine, covered in a paragraph or two of this report, it remains one of

ANNUAL REPORT -- Continued

the more important services of the Institute and one of the two most demanding of our activities in terms of time, talent and recognition. I have asked Mrs. Rush, our able office manager, to outline in Table I the steps she undertakes and the responsibilities involved in seeing that these press kits are properly issued, on time to the select list of addresses which she maintains:

TABLE I

I. Maintain and update the 900 plus mailing list and labels. Unless the mailing list is maintained and updated, the entire venture would be useless. This is accomplished by notes from editors, various other mailing lists (viz. Garden Writer's Association, etc.).

II. Preparation of articles. Dr. Schery first dictates a wide variety of articles for possible use in the upcoming press kit; after rough copy, these are again "weeded" and revised several times, then final typing for the printer.

III. Select appropriate reprints. After all the articles are ready, we then select appropriate backup reprints to accompany the articles, usually 3.

IV. Folders. Make certain we have enough folders -- as it has been customary for many years to mail the press kits in the familiar black/green folders, thus when an editor sees it, he will immediately associate it with "The Lawn Institute".

V. Final things. The above things, along with the familiar envelopes, are sent to the printer. After printing, we examine sample copy, then follow through, making sure the original deadline is met.

Stories and Reprints. -- Perhaps less routine, because we are less in control, but equally far-reaching in influence, are the stories provided magazines, generally later reprinted for further circulation. During the year the stories enumerated in Table II have appeared in the magazines indicated. Column inch calculations are rather meaningless here, for we are talking about an influence upon which a price cannot be put. Equivalent advertising space in these magazines would, of course, run to hundreds of thousands of dollars annually, especially with periodicals such as Better Homes and Gardens and American Home having circulations in the millions. As I have indicated on previous occasions, when a story appears in these magazines, under the sponsorship of the magazine and its editor, its impact on the reader is more convincing than would be an advertisement. Another routine Institute activity, yes! But if the Institute did nothing else through the year, your interest and sponsorship would be more than merited. Keep in mind that the influence of these stories does not end with their appearance in the magazine. When reprinted, they are offered to members for distribution, are sent to various influential correspondents such as teachers and extension agents, are handed out at public appearances and conventions, and are used as envelope stuffers in correspondence. A single story can initiate a chain reaction of influence extending all the way to the homeowner (who probably does not subscribe to the magazine), and over a period of many years following first publication. This has been our

TABLE II

Better Homes and Gardens
"Modern Lawngrasses Offer Choices" (in press).
Better Crops With Plant Food
"Turfgrass, America's Growingest Crop"
Better Turf and Garden
"Favorite Lawngrasses"
"Lawn Disease"
"Famous Weeds: Three from the 'Least Wanted' List"
Weeds -- Hit 'em Hard in Autumn" (in press)
"New Grass For Home Green"
"Dynamic Dwarf Bluegrass for Fine Lawns & Fairways" (in press)
Buildings
"Prepare Now for Spring Lawn Care"
Building Maintenance and Modernization
"Modern Lawn Maintenance"
Catholic Building & Maintenance
"Lawn Care in Autumn & Winter"
Catholic Institutional Management
"Good Seed Makes Good Sod"
Floral Magazine
"Season to Seed, Feed & Weed" (in press)
"Autumn Lawns, Up, Up & Away"
Flower and Garden Magazine
"A Stitch in Time"
"Summer Suggestions for Lawns"
"In Praise of Unpampered Turf"
Golf Superintendent
"Bluegrass/Bentgrass Checks Poa"
Grounds Maintenance
"Top Turfgrasses"
"Turfgrass Today"
Home & Garden Supply Merchandiser
"New Lawn Seeds Ready to Sprout Profits"
Horticulture
"Winter-Feeding of Lawns"
"Summer Care of Lawns"
"Label's the Clue to Lawn Seed"
"Lawn Thatch -- What it's All About" (in press)
Lawn, Garden and Outdoor Living
"Turfgrass Today"
Missouri Botanical Garden
"The Migration of a Plant" -- 2nd reprinting
Ohio Short Course
"Evaluation of Turfgrasses for Roadsides"
Seedsmen's Digest
"Winterseeding: Are Seedsmen Missing a Bet?"
Seed Trade News -- Several Short Items.
Seed World -- Several Items.
Southern Turf Newsletter
"Overseeding for Winter" (in press)
Weeds, Trees & Turf
"Low But Not Lightweight"
"Promising for Close-Mowed Lawns"
"Mechanical Renovation"

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most economical means of spreading "the good word", costing the Institute nothing for typesetting or layout, only the modest cost of office overhead and the reprinting itself. Mrs. Rush makes the original paste-up at the office for sending to the printer. During the fiscal year approximately 20,000 reprints have been ordered and distributed.

Other Activities.

SCREENING LITERATURE. -- The Institute subscribes to many of the technical journals, and its director attends some of the research conferences. Through summarizations in Harvests members are kept informed of pertinent reports. Discussions have been held with president Carnes as to whether such items are "lost" amidst the plethora of pages of Harvests, and whether an occasional special issue might better be held for technical subject matter?

TRIAL GROUNDS. -- If the Institute is to speak with authority, it is imperative that the staff be acquainted with the major grass cultivars and products for tending them. Such acquaintanceship is obtained from trial grounds at the Institute administrative office, incidentally, maintained with little expense to the Institute because of donations of grounds, equipment, products and a grant from the Borden Chemical Company. We are especially indebted to the Toro Manufacturing Company for smaller mowing equipment, and the automatic irrigation system that keeps a portion of the test area presentable regardless of the weather. For three years John Deere furnished a mowing tractor, but has not done so in 1969; the Institute can expect to assume greater responsibility for equipment and grounds than it has in the past, a matter worthy of attention by trustees.

CORRESPONDENCE. -- Another of the routine, but time-consuming, activities of the Institute is the answering of correspondence. This is advantageous, because it keeps us in touch with the product user. Also, advantage can be taken of the exchange of correspondence to include reprints and other exhortative materials. A portion of the consumer correspondence results from Dr. Schery acting as "lawn answer man" for Better Turf and Garden Magazine, a sponsored publication that invites inquiry. There is also considerable correspondence resulting from incoming telephone calls, often from firms undertaking market surveys or wanting special information concerning the lawn-tending field. Many requests are for reprints.

SCIENTIFIC CONTACTS. -- The director attempts to maintain liaison with the research and other technical people, through attendance at conventions (such as the Agronomy and AIBS meetings), and through appearances at public gatherings (such as turf conferences and the Ohio Roadside Short Course). It is especially gratifying that this year the officers and sponsoring organizations have seen fit to send the director to the First International Turfgrass Conference at Harrogate, England, and upon the subsequent tour of research facilities in northern Europe, the latter part of July. Leading turf research people from the United States and Europe will attend. Dr. Schery will discuss lawn seed production in the USA as part of the conference program. The Marysville office solicits from any of you information that will reflect creditably upon domestic lawn seed production. The Institute makes several mailings annually to its board

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of advisors, including top research personnel at most of the state universities in the United States. We call upon these people for assistance, such as in preparation of the review on roadside seeding given at the Ohio Short Course last October.

SEAL OF APPROVAL. -- The Institute continues to offer and maintain records on the Seal of Approval for packaged seed blends. Eight member firms currently utilize this service. The Wetsel Seed Company of Harrisonburg, Virginia, adopted the Seal during the fiscal year. Royalties of $\frac{1}{2}$ cent per lb. are returnable on a matching basis for local advertising. Trustees may want to reaffirm operating rules, consider ways in which this service can be embellished or made more useful. Possibly an identification seal of some sort could be made available to any member wishing to mark a product (or correspondence about it) of exceptional quality?

WINTERSEEDING. -- The Institute continues to encourage the seeding of fine-textured grasses in the South, for winter cover, especially on bermudagrass golf greens. In an attempt to encourage this market, a story was prepared for the Seedsmen's Digest last autumn. Another has been prepared for Ray Jensen's Southern Turf Newsletter, due out later this summer. Dr. Schery has inspected winterseeding research plantings in Georgia and Florida, reporting upon these (and upon released reports) in Harvests. We feel that considerable interest has been aroused in this use of quality lawn seed, as far north as the Carolinas.

REFERENCE BOOKS. -- Dr. Schery's contribution to various gardening encyclopedias, lawn and crop books, Encyclopedias Britannica and Americana, and the World Book, continue to put the Institute on record as an authoritative source of information. The college text Plant Science, published in May, 1969 was co-authored with Drs. Janick (Purdue), Wood (Duke) and Ruttan (Minnesota): the lawn seed industry is reviewed in chapter 7, and Institute photos used to illustrate seed production in Oregon. McCall's Garden Book, edited by Gretchen Harshbarger finally appeared during the fiscal year. The Institute was responsible for the chapters on lawns and soils. A review of this book by Robert L. Baker states: " -- If a beginning gardener were limited to one book, this should be it; a better choice would be difficult to find."

LAWN AND GARDEN WEEK. -- Dr. Schery was appointed to the steering committee for development of this first national "week" devoted to environmental improvement and beautification. The USDA assumes responsibility for the clerical needs and mailings regarding the "week". Several committee sessions were attended in Washington, D. C., and Institute literature offered. The week has been pronounced a success, and plans laid for its continuance and enlargement.

SOD INDUSTRY. -- Realizing the special demand of the sod industry for seed of high quality, the Institute has continued liaison with the Sod Growers Association. Dr. Schery visited the (then) president Ben Warren in Chicago last autumn. The Institute continues to furnish information about seed for sod upon inquiry and offers informational reprints.

COOPERATIVE ACTIVITIES. -- Multiple press kits and other informational items are furnished the Extension Service in 3 states, and many

ANNUAL REPORT -- Continued

county agents receive mailings individually. West Virginia was added to the mailing list during the fiscal year. Lawn booklets issued by Cornell University and the University of Wyoming utilized Institute photos. Critical reviews of stories for their publications were undertaken for the National Plant Food Institute, the Sulphur Institute, and several other national organizations. Dr. Schery is a member of the Garden Writer's Association, and serves on its awards committee. Literature and information have been supplied numerous educational and military institutions (grounds maintenance departments) including Duke University, Kentucky, Yale, Oklahoma State University, Ohio State University, the University of Maryland, West Virginia University, etc. Several libraries regularly receive Institute literature.

HIGHWAY SEEDINGS. -- The Institute encourages experimentation with fine-textured grasses for highway berms, especially in urbanized areas. Several highway departments, including that of Ohio, now lean towards fine-textured plantings for "show" areas. We are pleased to have had fine-textured plantings displayed on several berms for the Short Course tour. The roadside rest areas of the new highway near Marysville were seeded to a blend of 50 percent Pennlawn fescue, 40 percent Kentucky bluegrass and 10 percent Highland bentgrass. Reprints of the presentation given by Dr. Schery to the 27th Short Course on Roadside Development have been sent to members, and were mailed nationally to advisors and other interested parties. Reprints offered at the short course not only went to all attendees, but have been widely requested by others.

PHOTOGRAPHY. -- A photographic library about lawns is maintained in Marysville, mainly for illustrating magazine stories, but also available to garden writers and editors. Color transparencies are increasingly used by magazines; colored pictures from the Institute were used by Flower and Garden Magazine, Better Turf and Garden Magazine, and Floral Magazine. Kodachrome slides record seasonal happenings, and are used by Dr. Schery in personal presentations. Other photos document performance of grass cultivars of interest to members. A picture of a fescue roof, picked up (with permission) from Weibulls, Sweden, was included with the spring press kit, emphasizing how tenacious are the fine-leaved fescues.

HARVESTS. -- The mechanics of issuing Harvests, our quarterly newsletter, falls the lot of Mrs. Rush, who does some of the composition, all of the preparation, mimeographing and mailing. I have asked Mrs. Rush to provide a few thoughts on this operation: --

Dr. Schery is constantly alert to articles, research and technical information that will be of interest to members; he dictates the item, it is then "roughed out" and placed in a folder marked "Harvest Items". About a week before you expect to receive your newsletter, articles are grouped, then stencilled. Approximately 125 copies of each page are cranked out on our hand-operated Gestetner, pages assembled, stapled, put into envelopes which have had the address labels applied, weighed, stamped, and in a day or three, you are brought up-to-date with the happenings, etc., from the Marysville office via "Harvests".

MISCELLANEOUS. -- Major donors such as Borden, Deere and Toro have already been acknowledged. There are also many donors of pesticides,

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fertilizers and various other products. We were especially pleased to receive from Mead Paper Company a large shipment of fragmented bark mulch (Paygro). Without such aid the day-to-day running of the Institute could be a lot more expensive. We are also grateful to several members and affiliates for keeping us in touch with industry activities. President Carnes kindly took time to call on the Marysville office and discuss plans. Dr. Schery was guest of Northrup-King, inspecting the research grounds in Minneapolis. He also addressed the sales staff at the annual meeting of the Smith-Douglass Division of Borden. Jacklin Seed and W. R. Grace companies have lent help and encouragement during the year; they have furnished seed of new and outstanding varieties not only for the Institute grounds, but for important public display on the grounds of the new headquarters building of the Men's Garden Clubs of America, Des Moines.

One could go on at length describing the minutae of Institute activities. None of this, however, would be possible without the unceasing sponsorship of the organizations represented on this board. I feel that new life is being breathed into the Institute through the fine efforts by the new Oregon officers, and that the Institute may now have "bottomed out" from its retrenchment into a stage of modest growth that will enable it to meet its responsibilities more adequately. There are many neglected opportunities for the Institute, in recent years bypassed for lack of budget. Mr. Carnes may want to call to your attention projects for the future, such as increasing membership, changes in the by-laws, expanded mailings, tailored communications with members, enlargement of contacts (as through purchased mailing lists and other hired services), and even (hopefully) some day a new sponsored movie. The new fiscal year can be approached with greater confidence, I believe, than has been possible for some time. I thank you for the privilege of having served as the Institute's director for another year. Robert W. Schery.

ANNUAL MEETING BANQUET ADDRESS

We are privileged to reproduce here (except for abridgement of some jokes) Bob Russell's fine talk to the Institute at the recent annual meeting in Salem, Oregon, thus honoring requests for copies of "The Big Picture in Turfgrass".

"Your president, Jim Carnes, gave me a free hand for my topic tonight so please bear with me if I jump around a bit.

"What is our goal? Aim? Desire? Take away all of the fancy talk, and it boils down to one subject, profit. This indirectly is also of interest to our government friends who are with us tonight. A strong healthy industry is the key to improvement and interest in research and development which is their main field of endeavor. Not only this but when profit is squeezed we are bound to find firms who will begin to cut corners. They will look for the off grade lots. Make varietal substitutions to their price advantage. A healthy profitable industry doesn't have to concern itself with making money this way. This in itself achieves the goal of our Control people, our Extension folks, and the reputable seed firms who want the buyer to get what he is paying for.

BANQUET ADDRESS -- Continued

"How do we go about this profit business. It's simple, it's easy, it's basic and it applies to any endeavor. Bring the right product, to the right person, at the right time, at the right place, at the right price and in the right quantity. I've used the word "right" many times in the last sentence. The important thing to remember is that it is not the Federal Government, not the Certification people, not the Extension Services, not the growers, not the producers, the wholesalers, the food chains, the department stores, the hardware stores, nor the garden centers who decide what is "right" but it is the eventual purchaser who makes this final determination.

"Let me take an example that I think a good many of you will be familiar with. NK-100 Perennial Ryegrass. NK-100 didn't happen by accident. This didn't happen because someone wanted to sell it, or a farmer wanted to grow it, or because we spent a tremendous amount of money advertising it. To us, it was a lot of money, but compared to what others have spent promoting items in our field, it was a drop in the bucket. This grass just happened to hit all of the "rights" that I mentioned "right" on the nose. Homeowners were unhappy about the story that a good lawn, sown with good seed takes longer to germinate and didn't establish itself, because 9 out of 10 of them had washouts, didn't water properly or for some other reason didn't get the results that they thought they had paid for. With a fine-textured permanent ryegrass or "nursegrass", if I may use a word that seems to be dropping out of our seed vocabulary, they got a fast stand of a grass that could in itself make a good lawn or would protect and allow a grass such as Merion to establish itself without nature's usual hazards taking their toll. And let's not forget that it was priced within the means of all. Fortunately we just happened to be the ones who made use of this potential.

"The key to the whole thing as far as we were concerned was that we could sustain this program with our method of marketing and be more or less assured that someone wasn't going to come in and cut our prices. Whether this occurred because of our relationship with others in the seed business or whether it occurred because we didn't sell KN-100 as a straight grass I can't say. But I can say that we as a firm would not have poured the money into marketing NK-100 if we had felt that in two or three years someone else would be selling it in our back yard. Look at the chain of events that is occurring. We have Pelo, Manhattan, and even an interest in Norlea a grass that had been around for 20 years, plus a tremendous interest in the development of new varieties of all kinds. We know that the laws governing this part of our industry are presently in a state of change. However, even this will in my opinion not encourage the use or promotion by firms on our level of private varieties which are widely distributed from the breeders or growers level unless the grass itself is a great deal better than anything else on the market.

"Each of us must sit back and take stock and decide what we want if we have a good new variety and we are the breeder or grower we must be prepared to gamble a bundle and I mean a bundle into promoting the variety ourselves and let the chips fall where they may as far as profit on sales to the eventual user are concerned. Profits can not be controlled on the marketing level when wide distribution is involved. There are too many gimmicks that can be used to circumvent recommended pricing schedules. And

BANQUET ADDRESS -- Continued

of course you always have the possibility of government action if you are successful in controlled pricing of sales of a variety. I'm no lawyer and I don't want to suggest what can or can't be done legally on this matter.

"It might be feasible to maintain a price on the growers or producers level but with this we are forgetting one of the cardinal rules of the merchandiser of seed to the public and that is that firms like ourselves are putting all of our money, all of our effort into establishing a brand name the public will come back and ask for again and again. I don't have to tell you who is the prime example of this in our industry. When a price protected variety is put into a mixture its pricing level technically is lost as the mixer can establish almost any profit level or cost on the other ingredients in the mixture and sell it for what he wants. What incentive is there for us to promote this mixture when we know that the eventual and definitely forgone conclusion is that if it becomes a success the firm across the river or in the next town is going to match our formula and sell a package with the same ingredients for less money.

"Years ago, we, and I feel certain others decided that we should discourage the sale of straight grasses. These sales butted us head to head against our competition and price became the important factor in every sale. We weren't building a thing, we sank to the point of comparing a germination, weed or crop content of one lot against another. I don't have to remind you of what headaches that creates for you western folks or for us; this, as you know, is still going on.

"If a variety is distributed to individual firms regionally or to a single national firm and the crop is controlled so that excesses don't exist, I see no reason why an orderly profitable marketing system cannot be established. Other industries are doing it and have been doing it for years. Don't waste your time if you haven't got the "right", & I put quotes around that word, "right", variety. There are many right varieties coming along. Varieties with a story to tell, a story to sell. Depending on what variety protection laws we finally come up with should help you to decide what to do, whether you produce it or wholesale it.

"Those of us who have been in the business for a long number of years, old timers, if I may, and I think that I can begin to put myself in that category with 22 years under my belt, have got to face up to facts. Our business has changed. Prior to this, any variety that was sold was available to everyone who sold seed and all that you had to do was to have a lower price and you walked away with the order, or offered a grower a higher price for his crop and you made a buy. There are going to be people who will offer farmers higher prices over contract for certain varieties because they are not in the marketing channels for this particular variety. Don't be misled or upset by this. It is a false market created only by the fact that this seed is not available to them and they are willing to pay most any price for it so that they can get in and upset and undercut the marketing program that has been laid out by the owner or promoter of the variety. Once they get in and upset the picture the firm that is dealing with the seed producer has no choice but to reduce the contract price and we are all right back to where we started on this profit picture. This situation is changing and you might as well face facts. It is going to change more so in years ahead. We sit back and bemoan the fact

BANQUET ADDRESS -- Continued

that we can't make a decent profit on what we are selling. When we look at it, who fouled things up, who made it this way. We ourselves did it. No one else. I don't care what level of our business you want to look at, whether it be the grower, the producers, the wholesalers or the retailers. The farmer planted that seed of his own free will or someone contracted for his acreage and caused a surplus crop and everyone else along the line shaved his price so he'd be assured of the order. I've done it myself many times. Everybody is doing the same thing and it ends up that no one makes anything on the deal.

"There's a buck to be had in our business if we only know where to look for it. If we all got off our duffs and put our efforts into improving some phase of our operation, whether it be the variety, the mixture, the package or our merchandising. When I was a kid I read the funnies, one of which was Flash Gordon, and while intrigued, I used to laugh at some of his exploits. Next month we'll land a man on the moon. Somehow from this, I get the feeling that the impossible is always within reach if we'll only put enough effort into it. If we're in research, we can put our efforts toward a grass that is distasteful or harmful to insects and continue our search for grasses immune to diseases or ones that will tolerate heavy shade. Ones that are slow growing so that the homeowner can enjoy his lawn and still play golf or go boating and not have to give up every Saturday to his lawn mower. Grasses that don't require burning off to attain their full yield potential or a chemical that will give the plant the same physiological shock as burning. These directions are intriguing and interesting and I don't believe unattainable.

"If we were a grower we could work on our fields and our crop so that we wouldn't have any coarse grasses such as orchardgrass, tall fescue, ryegrass in our fine fescues or that infinitesimal amount of bentgrass in our final harvest. How many of you have seen what can happen to a beautiful Merion lawn over a period of years that was seeded with only a minute amount of bentgrass in the original seeding. Those of you interested in bentgrass may say that this is good, but it is not what the homeowner wanted when he bought the seed nor is he prepared to take care of it properly when the bentgrass finally does take over his lawn. Many of us damned the trend that was taken on *Poa annua* but now that it has shaken itself out, we know that we can make a profit or at least not have to sink to the lowest pricing level if we can provide seed that is free of *Poa annua*. In addition we are all aware of what has happened to the European production.

"If we are on the merchandising level, we have many channels open to us if we put some thought to it. A word of caution. Give a lot of thought to any gimmick or sales idea that may come to you. I've talked about this before to other groups and I'll continue to talk about it. Follow your idea ahead. Think about it five years from now and assume that you've come up with a world beater. What is your competition going to do about it? Can he follow suit, can he copy exactly what you are doing so that he cuts your edge out from under you? And then what happens? You've lost that sales edge that you worked so hard to gain and spent so much money promoting so that he could jump onto your band wagon without all the initial promotional cost. All of a sudden you find yourself with a gigantic noose around your neck, squirming trying to find out how to get out from under. It isn't easy and you finally lose a lot of customers

BANQUET ADDRESS -- Continued

when you decide to make the big decision. Meanwhile your competitor, who was a little slow following you into your program, is also a little slow following you out of it and he picks up the edge that you had originally. So where does it all put you? The taking back of seed is a classic example. We are in the midst of another one right now with an unconditional guarantee of results to the homeowner regardless of why he doesn't get a good lawn with our product.

"One of our good friends, a firm that has done more good for our industry than all the rest of us combined is currently running this type of promotion...

(Two letters read wanting refund because of rain washout.)

"Naturally we sent them each a refund or replaced their seed, delivered by the way, by one of our own salesmen for that personal touch, added mileage out of our friends advertising that they can't possibly give because of their wide coverage. Think a promotion through all the way. Don't be satisfied with your first reaction, with the first results.

"Another such situation which has been discussed a number of times that really upsets me is the promotion of small packages of lawn seed mixtures that are certified. Anyone who packages seed can do this. If it should become a factor, where do we end up? Please follow it through and think about all the additional costs that are going to be added on somewhere. And what for? So that in rare cases the homeowner is going to be assured of getting Pennlawn instead of regular creeping red. Really is this worth the expense involved? We're not talking about saving a life. Please don't get me wrong. I'm not against certification. I am all for it for the man who must be positive of what he is getting, for the man who must put his large purchases out on bid, for the man who feels that he has to buy on price. If anything I feel our efforts should be in the direction of research toward positively identifying these varieties if we are worried about our competition getting the edge on us by using it as a sales gimmick. Why legitimize the bastards. Let us stand on our own name and reputation and make him do the same. Look at the meat industry. There has been government inspection and grading of that for years. Has it stopped the sale of inferior meats. Absolutely not. It only opens up another field of endeavor for the chiseler to work on. We are badly misleading the public by the use of certified small packages. Purposely just to see if my thoughts were right, about three weeks ago I had one of my men ask this question of ten homeowners at a large garden center. "What does this seal and the word certified mean to you on this package?" One man out of the ten said "Nothing, I know the type of seed I've had good luck with and that's what I buy." The other nine without exception said comments like: "That it is government approved, government recommended, that it's the best grade of seed." Now we all know that this couldn't be further from the truth. That mixture could have very well contained any number of certified varieties that are not adapted to the making of a good lawn. If the change being discussed on certification becomes fact and it becomes a standard of genetic purity only without relation to weed, crop or germination then this misleading aspect becomes even stronger.

BANQUET ADDRESS -- Continued

"We are all concerned about the increasing cost of operation both for ourselves and for the cost of government. We know that taxes have to continue to increase. Government consists of people, and these people, like ourselves, need and want a continually rising income. Schools need more money, housing needs more money, roads need more money. These are important things that require increases in taxes. Now why start something that we know is going to add substantially, in relation to value received, to this already overburdened picture. The only possible way we can improve ourselves and our industry, and after all that has to be our goal or we wouldn't be wasting our time and our money being here tonight, is to run a profitable operation. Anything that drains from this potential without a substantial monetary return has to be looked at twice. If we make more money we can spend more money. We can pool our resources as an industry or we can go off individually or in groups but however we do it, it has to be done.

"Research toward improvement should be our goal. Without this we are stagnant. Forget it. Sell your assets, whether it be a farm, a mill, a packaging plant, or a warehouse and invest that money soundly and I can guarantee you one thing. You'll have less headaches and ulcers and you'll probably come out ahead financially in the long run. We have right here the ideal vehicle for a program of uplifting our industry. The Lawn Institute. I know that that is its goal but you can't do what you would like to do without money. We must tread lightly but somewhere along the line tied into perhaps the promotion and the use of the Institute Seal with a profit schedule that would be tied back into diverting a percentage of these profits into research sponsored by the Institute might prove interesting. Rather than the indiscriminate use of the Seal on any good mixture at any price level. It's food for thought.

"Out of all this we can determine that one thing is certain. We shouldn't be wasting our time fighting each other over price and other such things. All of our spare efforts as a unified group should be spent combating the golf bag, the sail boat and the tennis racket. These are the leisure time things that are growing by leaps and bounds and are taking the consumers spendable dollar and spare time. Our goal should be to make the job of lawn making and lawn tending as easy and enjoyable as possible, leaving the homeowner not with the knowledge that he is fighting a losing battle with nature but with the knowledge that he can keep his lawn beautiful and get the desired results with a minimum amount of effort, time and money." (slides).

ANNUAL MEETING FIELD TOUR -- Continued from page 3

Nicewood farms in Linn County. The tour ended with inspections of Penncross bent and a wheel system of irrigation at the Plagmann Farms, and a delightful evening barbecue there.

These informative tours organized by the Oregon sponsors and officers in conjunction with the last two annual meetings have certainly been a real treat. Eastern members who have not visited the Willamette seed producing area in production season should certainly plan to attend next year's annual meeting.

II. POTPOURRI

ASTA ANNUAL MEETING

James Carnes, president, and Dr. Schery, Director were privileged to attend the American Seed Trade Association annual convention in Denver June 15-18. Much of the activity of this convention centers on trading and behind-the-scene conferences, but some of the formal programs will be of interest to the members.

The opening general sessions were largely devoted to a review of accomplishments and national or international problems facing the seed industry as a whole. Harry Kinder was elected the new second vice president, with Richard McKenna elevated to the presidency (succeeding Harold Loden), and D. D. Walker to the first vice presidency.

Monday afternoon was devoted to divisional programs. The lawn seed division disposed of various business matters, that included \$800 sponsorship of the newspaper supplement for which the Institute has prepared the lawn stories in the past years.

President James Jenks reviewed the problem of field burning in the northwestern production areas, necessary for economical seed production (controls pests, makes herbicides more effective, provides "physiological shock"). Because burning causes air pollution, restriction is bound to occur! There will be increased costs that must be passed along as various other means of field sanitation substitute for it.

Numerous committee reports were accepted. Bill Herron, for the Legislative Committee, noted that 29 states are in the process of revising seed laws. There is increasing recognition of fine-leaf ryegrasses, and increasing restrictions against Poa annua. Several states are initiating licensing of out-of-state seed firms, a trend to be opposed. Doyle Jacklin, for the Statistics Committee, commended the authorities for improved methodology in obtaining data. A previous resolution relating to opposition of certification of seed mixtures was rescinded, upon the intelligence that this matter was being more effectively handled by other means. Arden Jacklin noted that apomictic bluegrasses are still covered by the Plant Patent Act rather than the proposed new "Breeder's Rights" legislation pending.

Featured speaker was Dr. Gene Nutter, Editor-Publisher of Turfgrass Times, who gave an enthusiastic review of opportunities and growth in the turfgrass field. Among the opportunities Dr. Nutter stressed was the winter-seeding of southern golf greens, for which he felt the new perennial ryegrasses showed much promise. Many states spend 100-200 million dollars annually on turfgrass maintenance, and estimates range from 4.3-10 billion national expenditure. There are 11,000 golf courses, over 11 million golfers, 900 cultivated sod producers (having 160,000 acres of sod worth 100 million wholesale). Nutter emphasized that Poa annua was an increasingly serious pest in the South, and visualized continuing loss of market to artificial turf unless more serviceable athletic field sods can be developed.

New officers of the Lawn Seed Division are Alan Mock, president; Peter Loft, vice president, and Doyle Jacklin secretary-treasurer.

Speaker for the American Seed Research Foundation was Dr. Lowell Woodstock of the USDA, Beltsville, Maryland. Dr. Woodstock feels that varietal

ASTA ANNUAL MEETING -- Continued

identification by means of electrophoresis (protein identification) is almost ready for practical utilization. He mentioned that in England fungi specific to certain varieties are being used for identification. He reviewed some of the research underway within ARS, with mass germination along joint gradients of moisture and temperature. He gave an interesting example with Newport bluegrass, which showed practically no germination in the dark at 20° C, but near perfect germination with 10 hours of light, yet little again when kept in continuous light. Much biochemical interest is shaping up in seed research, with measurement of respiration and other physiological functions. The researchers are concerned not only with the intensity of vigor (adequacy of germination and seedling growth), but also with range of adaptability (how well seed germination fits environmental extremes).

MORE "GREEN THUMB" ATTENTION

The Institute continues to furnish Doc Abraham information about lawns, for his Green Thumb column syndicated in many newspapers throughout the country. Not only does this help us get sound information to the public, but it is usually a treat to have Doc's letters, full of humor and variety. Even though there may be some flattery involved, we are gratified to have Doc say, "For my money, you've got more common sense about lawns in your little finger than most of them have in their whole skeletons."

REQUEST FOR LITERATURE FROM ITALY

The International "reputation" of the Institute is confirmed by a recent request from Alfredo Ansaloni (Florsilva Ansaloni), Bologna, Italy, who wrote to the Marysville office in search of references and literature in the field of turfgrass. A large batch of reprints and a copy of The Householder's Guide to Outdoor Beauty were dispatched to Mr. Ansaloni by surface mail.

NEWS RELEASE OUT

Under the title Lawn Institute Tests Prove Weed and Feed Products Work Best in Fall, Borden Chemical Company issued a national news release mentioning Institute activity and quality grasses. ("even in warm weather, a good weed-and-feed is unlikely to bother bluegrass or fine fescue used at double strength. In the cool of autumn there is hardly any danger. And this is the time of year bluegrasses and fescues gain greatest advantage ----"). We look for widespread pickup of this news release by the press nationally.

IN HOME AND GARDEN SUPPLY MERCHANDISER

The Institute is quoted in the July issue of the Home and Garden Supply Merchandiser. The first paragraph reads, "The problems brought on by thatch come in a wide range, from almost no problems in Kentucky bluegrass lawns maintained under average care, to complete smothering and death of the grass in heavily thatched creeping bents, zoysias and bermudas, according to Dr. R. W. Schery, Director, Lawn Institute."

PRESIDENT CARNES VISITS

In late April president Carnes had chance to spend parts of two days with the Institute staff at the Marysville office. Since becoming president last June, this was the first opportunity Mr. Carnes had to become acquainted with the physical facilities of the Institute. In addition to inspecting operations, the visit provided opportunity to discuss plans for the upcoming annual meeting, and to discuss possible new approaches for enlarging the scope of Institute activities. A visit of this sort is invaluable for improved communications. Staff capabilities are necessarily linked to facilities, and opportunities for maximum employment of Institute talent become clearer when officers have firsthand familiarity with staff operations.

INTERNATIONAL TURFGRASS CONFERENCE

President Carnes announced after special meetings with sponsoring Institute groups that appropriations had been secured for Dr. Schery to attend the First International Turfgrass Conference being held in London in mid-July, followed by a brief tour of turfgrass research centers in northern Europe. Dr. Schery has been invited to offer one of the keynote presentations at the conference, and expects to review domestic lawn seed production in the United States. In that the plan of the conference is to distribute mimeographed copies of all presentations beforehand, and have the speaker not repeat the "paper" but rather enlarge upon it, there is still opportunity to assemble data that may be useful in the presentation. It would be most helpful if any members having new research information which can help point up the effectiveness and quality-consciousness of the domestic lawn seed industry would inform Dr. Schery at the Marysville office of the particular points of interest.

BOOK APPEARS

Plant Science, by Janick, Schery, Woods and Ruttan, now has been published by Freeman. The Lawn Institute is mentioned on the dust jacket as "Dr. Schery's occupation", (Dr. Janick is at Purdue University, Dr. Woods at Duke University and Dr. Ruttan at the University of Minnesota). The book is designed for undergraduate college instruction in agriculture, horticulture, botany and related disciplines. As such it is a general review of many phases of crop science. Grasses sponsoring the Institute are reviewed under forages, and again under Ornamental and Horticultural Specialty Crops. Institute photographs of bluegrass and fine fescue production are utilized (the latter furnished by the Union Pacific Railroad through the good offices of the Fine Fescue Commission), and an illustration entitled "Combining Highland bentgrass in Oregon for lawn seed" is courtesy of the Highland Bentgrass Commission. The Lawn Seed Industry is specifically discussed on pages 532-534, and the Garden Seed Industry on subsequent pages.

LAWN MOVIE

Noted listed as an "Award Winner" in the American Horticultural Film Festival for 1968, was The Lawns of America sponsored by the National Council of State Garden Clubs, 4401 Magnolia Avenue, St. Louis, Missouri 63110. The staff has not had opportunity to see this film, and would welcome the impression of any members who have.

NEW LAWN HANDBOOK.

The Agricultural Extension Service, of the University of Wyoming, is to be congratulated on the new bulletin 495 of March, 1969, Wyoming Lawn Handbook. The Institute cooperated in furnishing several illustrations for this attractive publication, and we believe was instrumental (through its issuances) in development of much of the text. For a state with relatively low population and little urbanization, this is indeed a commendable effort. The 24 page book is attractive, well edited, containing sound advice.

Lawn grasses are discussed on the very first page. The three favorites for Wyoming are the Kentucky bluegrasses, the fine fescues, and the bent-grasses. E. Blair Adams, author, has this to say in introducing each: "Kentucky bluegrass is the most popular lawngrass in Wyoming", "[fine fescue] ranks next to Kentucky bluegrass as the most popular lawngrass in the northern United States.", "Highland bentgrass is the best bentgrass variety for home lawns in Wyoming."

The composite photograph showing individual grass plants and seeds of fine-textured and coarse-kind grasses appears as figure 4, on page 5. A complete page is devoted to "Characteristics and Uses of Lawngrasses", (viz. table 1, page 14). Examples of good and poor seed purchases are diagrammed on page 16.

ARTIFICIAL TURF REVIEW

The June issue of Grounds Maintenance carried the story Synthetic Turf is Here to Stay, one of the more informative recent exposés on artificial turf. This is one of the few cases run across in which the construction of an artificial turf layout is explicitly given. Installation is complicated, massive, and essentially irreversible (back to living grass). One type uses 12 inches of compacted soil as a base, on top of which is laid about 6 inches of gravel or crushed rock, followed by 1 inch of asphaltic concrete, then another inch of asphaltic concrete of finer texture, then $\frac{1}{2}$ inch of cushioning, and finally $\frac{1}{2}$ inch of synthetic grass surfacing. Another type uses anchoring studs that appear much like foundation footings, surrounded by crushed rock, drainage tile and topped by a layer of asphalt, resilient pad, and finally nylon turf. No wonder these installations are so expensive!

MORE FOR THE GREEN THUMB

Inquiry picked up this spring quarter, from homeowners having lawn questions. Doc Abraham, whose syndicated Green Thumb column appears in scores of northeastern newspapers, again called upon the Institute for framing reply. It's not always easy to judge the cause of a problem, but a pretty good answer is to plant stalwart fine fescues and Kentucky bluegrass where lesser species have failed. George usually has our answers printed in his column, as well as answering the inquiry directly.

REQUESTS CONTINUE

Over a year ago, the reprint "Seed and Feed to Hex the Weed" was distributed to members. We just had another request from the Oliger Seed Company for additional copies, as they supply their retail dealers, who in turn make the reprint available to their customers. We are always glad to have requests like this.

HELP FROM TORO

We were pleased to have Dick Danielson and Charles Watson, representatives of the Moist-O-Matic Division of the Toro Corporation, visit the Institute in mid-May and help with installation of a new, expanded irrigation setup for the demonstration and trial grounds. Toro has been most generous in furnishing equipment through the years, and we are grateful for this additional technical help and expansion. In the months ahead it will be possible to maintain plantings of the many new turfgrass varieties green and attractive, such as would not be the case if they were forced to endure summer drought.

ROADSIDE BULLETINS SENT ADVISORS

Institute advisors at Michigan State University, the University of Nebraska, University of California at Davis, Mississippi State University, and the University of North Carolina, were all sent complimentary copies of the 180 page report on the "27th Short Course on Roadside Development". Institute advisors at these universities had kindly sent voluminous data to Dr. Schery for a presentation at the Short Course the previous year, and are cited by name and location in the report published in this volume under the title "Evaluation of Turfgrasses for Roadsides".

MISSOURI REQUESTS

"Several members of our department have read the reprints you sent Dr. Hemphill earlier this month, and would like to have copies for their files and use. We would like to get five copies of each of these reprints listed in your letter as Reprints 143-152. Drs. Dunn and Lobenstein are the other members that have requested copies.

"Since I handle horticultural news releases, I would like to receive this material when it is made available. If possible, please add my name to the mailing list."

R. R. Rothenberger, Extension Horticulturist
University of Missouri

NEW PEST CONTROL GUIDE

The Extension Division of Virginia Polytechnic Institute has reissued control series 76 under the date of January, 1969, Guide for the Chemical Control of Turfgrass Diseases and Turfgrass Weeds. Recommendations are made in tabular form, listed alphabetically according to disease and turfgrass (weeds). The 10 page circular is a handy reminder of the increasingly complex series of chemicals used for pest control in the lawn, and gives rates and recommendations for each product.

INQUIRY FROM MEXICO

A letter from the Quimica Industrial y Domestica, S. A., Guadalajara, Jal., Mexico was received in April, asking for information on suitable (low maintenance) grasses for the Guadalajara area. It adds spice to the day's mail to have a letter in Spanish, and to feel the Institute is being heard of in places so distant as Guadalajara. Quimica Industrial y Domestica is engaged in the growing and marketing of sod, and seems bothered with rising labor costs for turf maintenance the same as in the United States.

REQUEST FROM WASHINGTON

A letter from the Bureau of Design, Engineering and Research Department of Highways and Traffic, Washington, D. C., asks for the Institute reprints distributed by Dr. Schery at time of his presentation to the 1968 Ohio Short Course. We are pleased to send these, and several other reprints, to Bernard Grace, Landscape Architect with the Bureau. As important as federal money is to the highway program, it is nice to have Institute literature recognized in Washington, D. C.

NEW PUBLICATION

Brantwood publications has acquired the former Landscape Design And Construction magazine, and is now issuing it attractively under the title Landscape Industry. This newly launched venture has the services of several well-known editors and consultants, and promises to be an important influence in landscaping and related fields. News of the industry as well as features is included. Slanted as it is to "design", "construction" and "maintenance", there should be opportunity for occasional features having to do with lawns and turfgrass management.

REPRINTS SENT IOWA STATE UNIVERSITY

We were pleased to send Dr. Robbins, who teaches an introductory horticulture course, a series of reprints for possible classroom use. Dr. Robbins had inquired about availability of a "single concept film loop" which might be useful for teaching purposes, not available from the Institute.

Dr. Robbins later requested 30 copies each of several of the reprints for distribution in horticultural classes at Iowa State University. The additional supplies were sent immediately.

PRESS MAILING PLANNED

Borden Chemical Company plans to issue a press mailing this autumn detailing Institute experiments with weed-and-feed on bluegrass. Findings indicated that a late autumn application (October) gave nearly perfect weed control the following spring, better than earlier (September) treatments. Heavy rates are suggested at that season.

UNIVERSITY REQUESTS REPRINTS

During the latter part of May, Dr. Macha from the Murray State University, Murray, Kentucky, requested 20 different reprints. We were happy to send each of these, with the offer to send more should he have need of them.

COMMUNITY ACTION ORGANIZATION

The Institute lent its support to the tri-county Community Action Organization (federally sponsored low-income program), when Dr. Schery spoke to the group in the local school auditorium. Each attendee was given a copy of The Householder's Guide to Outdoor Beauty, and an outline on the steps for lawn establishment and lawn care. These were the basis for a 2 hour discussion on how to improve the home surroundings economically yet effectively.

KOREAN ORPHANAGE REQUEST

A recent foreign request reads: "I am very happy to have an golden opportunity to find your name and address in a list. -- We have been trying to get the seeds of Lawn, but it is difficult for us to find out a way to get the seeds of the lawn. -- send me a copy of your magazines, so I would be much appreciated for it."

The Institute sent information and hopes Mrs. Yen (superintendent of the orphanage) can receive a bit of seed sent to Korea from Oregon. Thought you'd be interested in this piquant communication from a foreign land.

IN "GREEN THUMB" COLUMN

George Abraham, for whom the Institute services lawn inquiries from time to time, mentioned the Institute in his syndicated column appearing about June 1. Chief topic of column discussion was lawn thatch.

USDA REQUEST

Richard H. Drullinger, USDA, stationed at East Lansing, Michigan, requested roadside seeding reprints offered at the last Ohio Short Course.

TELEPHONE REQUEST

Mr. John Bartley of the Seaboard Seed Company, telephoned the Marysville office the first part of June, requesting a number of the reprint, "Winterseeding: Are Seedsmen Missing a Bet?". This article originally appeared in the Seedsmen's Digest. A dozen or so copies were sent the same morning requested.

EDUCATIONAL MATERIAL REQUESTED

Sister M. Ann Rosaire, from Our Lady of Angels College, recently requested material to aid her in a course on "Use of Instructional Media". Sample press kits, numerous reprints, and a complimentary copy of The Householder's Guide to Outdoor Beauty were sent immediately.

LIBRARY REQUEST

The Applied Sciences and Technology Library of Murray State University, Murray, Kentucky requested literature for use there. Approximately 250 reprints were mailed to them on May Day.

SUNSET MAGAZINE

The editorial department of Sunset Magazine for the Pacific Northwest sent proof to the Institute for comment and technical review of a short item dealing with autumn lawn seeding. We were pleased to offer certain suggestions which, if adopted, should make a stronger case for quality lawn seed and their autumn planting.

MOVIE REQUEST

The following request was received from the University of the State of New York, West Nyack: "We would very much appreciate your sending us horticultural films for use in our classroom here at the Center of Occupational Education." This is another instance of the steady demand we experience for vocational materials.

I. TECHNICAL SECTIONPURDUE CONFERENCE PROCEEDINGS

The Turf Conference Proceedings for the March, 1969 conference of the Midwest Regional Turf Foundation at Purdue University was issued in early June. The nearly 60 papers presented are summarized in the Proceedings with varying degrees of completeness. Among the more interesting papers were a series on specific bluegrass varieties, of which Doyle Jacklin provided a unique and well-organized discussion showing that launching of a new cultivar these days requires more than just a good strain of grass -- but additionally a lot of planning, organization and integrated publicity.

The opening papers in the Proceedings included several that dealt with the fundamentals of soil, water movement in the soil, and the production of synthetic soils for golf greens. Almost unavoidably such presentations are technical and pedestrian to read, although good to have on file for the record. Another section of papers having limited interest dealt with promoting golf, and management of country clubs.

Mascaro went into some detail on mineral content of guttated water, theorizing that those grasses exuding most were generally more susceptible to disease (bent and bermudagrasses high, bluegrasses medium, fescues low). He gave a list of 7 practices to undertake "during periods of stress", tying in vaguely with the theory presented earlier. Watson, Wilkie, Dunlap and others discussed irrigation. With all the automation and peripheral controls used today, golf course turf irrigation has become more an engineering matter than an agricultural one.

Jacklin reviewed the planned development of the Fylking program, pointing up the reasons for beginning with the sod industry and eventually moving into the larger and more varied consumer sales. Florence reviewed Windsor bluegrass briefly, mentioning " -- tomorrow we may have a replacement for Windsor!" Daniel noted the slow growth and lack of early aggressiveness of Sodco, an intentional attribute, and appeared to recommend nursegrass inclusions. He suggests Sodco for use in the shade, and where reduced mowing is a requirement. Warren indicates that his merchandising will center largely on the A-20 selection, propagated vegetatively. Long discussed the response of bluegrass to low clipping, indicating that this can be tolerated if pains are taken to properly adjust other maintenance practices. Purdue research with bluegrass is taking a new tack, with more study of individual selections made in the past rather than continued screening for new selections.

Daniel plugged for maintaining a proper level of arsenic in the soil, for control of *Poa annua*, toxic to this species but not to bentgrasses and perennial bluegrasses (indeed a touchy matter for the non-professional!). His explanations are not entirely lucid, but those interested will gain a general idea of what is recommended from the chart on page 90 that relates strength of treatment to soil phosphorus tests, percentage of *Poa annua*, and soil texture. Evans gave one of the more neatly rounded papers on Herbicides For Turf, summarizing what chemicals are used these days for what types of weed problems. About the only new suggestion is the use of bromoxynil (Brominal) for broadleaf weed control in seedling turfgrasses.

Morgan reported at some length upon research in California relating to the "safety" of athletic turf, and had data indicating that proper choice of grass plus proper maintenance can reduce injuries 50 percent or more. Data

(Continued on next page)

PURDUE CONFERENCE PROCEEDINGS - Continued.

collected by Monsanto is cited, naturally favoring the safety of Astroturf, although all of these evaluations are very subjective and comparisons hardly possible.

There is an involved review of how the turf on the Purdue football stadium was established and is handled; a review of soil heating in the 3 stadia where it has been used in the United States (there seem to have been some monumental failures in St. Louis, and 3 or 4 switches in kind of grass used). Scott presented background information on turf disease and transmission, but perhaps more interesting was Shurtleff's discussion of What's New With Bentgrass Diseases. He mentions the stimulation of fungi by guttation fluids, particularly with brown patch, dollarspot and pythium; both stripe smut and flag smut (practically indistinguishable visually) are becoming prevalent on Midwestern bentgrasses; Benlate (a systemic) is encouraging, useful against dollarspot, brown patch, rust, smut and snowmold, promising combined with other fungicides for control of all important bentgrass diseases; no good control for pythium, although Dexon, Terrazole and Demosan have been useful for mild attacks. The final 2 or 3 papers dealt with manpower.

ARIZONA REPORT

Report 250, "Turfgrass Research" for 1967-68 was recently received from the University of Arizona. The presentation is less comprehensive than some of the past reports have been. Several of the papers dealt with control of weeds or insect pests of concern in Arizona, but not commonplace generally. Of interest to Institute members may be the ratings of new bermudagrass varieties, and the usefulness of phosphorus on Arizona bermudagrass.

Of the prevailing available varieties, Tiflawn was outstanding under severe moisture stress. However 2 coded selections (one of them may be identical with Tiflawn) rated slightly better in maintaining green cover in spite of drought. In the fertilization study, bermudagrass responded as would be expected to nitrogen, but was neither helped nor injured by a series of differing phosphorus rates. The observations are to continue at least an additional year, to see if there is any long term advantage or disadvantage to lack of, or an abundance of, phosphorus.

GUIDE TO LAWN CARE

The Nassau County Agricultural News (Long Island) devoted its April issue to "A Guide to Lawn Care". The text was comprehensive and conventional. Compiled by Herb Kastl, obviously much of the information was drawn from Cornell University publications, including almost all of the black-white photos (adapted from the excellent color series issued by Cornell). The information given is sound, and popularly expressed.

The tone of this publication, however, is negative rather than positive. Almost the entire discussion relates to "problems", not "successes". From a public relations standpoint the reverse might have encouraged people more with their lawn efforts rather than pointing out how many things can go wrong. The opening page is a series of "Management Problems", followed by "Weeds" and "Disease and Insect Problems". Being nicely illustrated, the 12 page brochure should prove quite educational to homeowners in the New York area.

COMPLETE ROADSIDE MANUAL

The Institute received a complimentary copy of bulletin 322, Highway Vegetation, from author Dr. Robert W. Duell, research specialist at Rutgers University, New Jersey. This 30 page bulletin is one of the nicest summaries concerning the seeding and maintenance of roadsides for the northeastern quarter of the country that has come to our attention. Although directed toward New Jersey specifically, Dr. Duell draws upon publications relating to many states, and includes a bibliography of 121 titles. Following general introductory materials Duell examines the roadside environment, soils, climate, wildlife, lime, fertilizers, roadside grasses, roadside legumes, seed mixtures, seeding, mulching, growth regulators, and salt injury.

In reference to roadside grasses, the bulletin advises, " -- the most practical roadside cover --. Kentucky bluegrass is the most widespread grass in the northeastern United States. On the poorer soils of mowed roadsides in northern New Jersey, red fescue is more persistent." Duell reports a curious incident, "Blaser found that a mixture of Kentucky bluegrass and redtop sown in August will produce a sod primarily of redtop, but the same mixture sown in September will be primarily bluegrass, --". Also, "Turka and Blaser both state that the use of annual grasses is generally not desirable, for the residual effect of their excessive competition on the perennial species outweighs the initial better soil coverage." "Shotgun or complex mixtures are sometimes justified where the area being sown is very heterogeneous, and it would be impractical to accommodate the differing environments with specific seed mixtures. In these instances we realize that the seed of some species will be wasted in certain sites, but that in all sites some species will be sufficiently adapted to provide plant coverage."

Duell recognizes changing trends, "Recently an awareness of the needs for special grasses for highways has developed, and grass breeders have begun the quest for superior varieties for roadside use. Already experimental selections show promise of marked reductions in need for mowing, -- although seed of specifically tailored plant material will be more expensive initially, the savings in maintenance and the value of superior performance would soon compensate."

SEED LEAGUE PROCEEDINGS

The Proceedings of the 28th annual meeting of the Oregon Seed Growers League, held last December, appeared in May. The diverse series of papers, en toto, give a pretty good resume of "the state of the art" in growing seed in the Pacific Northwest. The Institute was fortunate to have had its program discussed, and this appears in the Proceedings under the title The Better Lawn and Turf Program, beginning page 57.

Many excellent presentations were offered by representatives of Oregon State University, on the technical side, and by representatives of the Seed Industry, pointing up the problems and inevitable changes coming in the Northwest. Rex Warren reported on an extensive trip through the southern states, in which he examined the ways in which Oregon seed is used; especially pertinent to Institute interest is his review of the winterseeding market. All told a review of this 114 page booklet provides excellent background on conditions in the leading lawn seed producing states, and might be suggested for out-of-staters attending the Institute annual meeting.

ROADSIDE REPORT OUT

The 180 page report on the 27th Short Course on Roadside Development, Ohio Department of Highways and Ohio State University, was received in April. This is a compilation of the presentations and activities from the annual short course the preceding October. The Lawn Institute participated through Dr. Schery's "Evaluation of Turfgrasses for Roadsides", and by furnishing reprints which were handed out to attendees. This annual short course in Ohio serves as the national gathering for highway landscape architects.

The Institute presentation has been reprinted and distributed to members. This provides a useful enclosure for inquiries and discussion relating to roadside seeding. It points out that a subtle interrelationship of environmental factors governs what will succeed on the roadside as well as in nature. There is more sophistication in roadside seeding these days, and the new wide assortment of turfgrasses (as well as improved care) permits lawn-like plantings that are lower growing and save maintenance costs (even though seed may sell at a slight premium).

Dr. Schery noted that in Ohio there had been practicing "roadside ecologists" even before the roadside was accorded much status by the engineers. " -- Loy Stevely has accomplished --- with an all fine-textured seeding that he dreamed up himself over a dozen years ago, before there were many turf 'experts' around --- the permanence of turf from basically a Kentucky bluegrass - fine fescue seeding blend; and Loy tells me that there is a definite saving in mowing as well as a more modern appearance to these lower-growing, fine-textured species."

Reports received from the Institute's board of advisors (experts at experiment stations around the country) were quoted to give a bird's eye view of roadside planting nationally, and the final page discussed by name the many new turfgrass varieties becoming available, and the particular adaptations which they fit.

TURFGRASSES IN SHADE

Glenn Wood, Institute advisor, Vermont, reports upon Evaluating Turfgrasses for Shade Tolerance, in the May Agronomy Journal. Tests were both in a growth chamber and in the field, but respective rankings were not always identical. It is questionable that such tests are too indicative of genetically induced shade tolerance, since many other factors bear on the problem, and differ with differing lots of the same cultivar. Moreover, measurement of root and topgrowth weight over a short span is not as meaningful as is persistence of the grass through the years in natural habitat. Wood's study does confirm that the fine fescues are in general more shade-tolerant than the Kentucky bluegrasses, but apparently different fine fescues rank differently at varying light intensities. At the lowest light intensities Golfrood outranked all other cultivars, and Wood concludes "Golfrood red fescue was the outstanding cultivar and demonstrated superior shade tolerance in both the growth chamber and field". The tables of data, however, do not seem to indicate any great degree of difference between many of the varieties entered in the test. Another conclusion of Wood's is, "Pennlawn, an improved red fescue commonly recommended for all situations in the Northeast and some other areas, was significantly poorer in shade tolerance in this test than Golfrood, Ruby, Common and N-88 red fescues."

WINTERKILL OF SOD

An article in the June Weeds, Trees and Turf, entitled Sod Winterkill Extensive, predicts a sod shortage until 1971 in the Great Lakes Region. Apparently commercial sod growers in Wisconsin, Illinois and Michigan have lost up to 30 percent of their crop ready for market. The article was not entirely clear as to causes, although Dr. Beard theorized that sudden freezes in March after winter dormancy had been broken were responsible in some areas. It is difficult to imagine this being bothersome on established bluegrasses, although possibly with heavily forced, young grass, this might have been the situation. Our own experience on the Institute grounds indicates that winterkill is more apt to be due to heaving and desiccation of young turf than because of temperature changes.

In any event it seems as though problems are shaping up in the sod industry, with troubles in some places being due to build up of disease, in others, due to flooding, and in other areas to desiccation. With a predicted shortage of sod in this important marketing area, wholesale prices are estimated to nearly double. There could develop greater interest on the part of the homeowner in seeding his own lawn rather than buying a ready-made one. The current situation indicates that even with professional growing sod is not without its problems, and is one argument for direct seeding of lawns.

POTASSIUM INFLUENCE

In recent years there has been a barrage of publicity about the advantage of ample potassium for turfgrasses, giving them more "muscle", better disease resistance, winter hardiness, etc. A report by Holt and Hilst on the Carbohydrate Content of Selected Forage Crops, in the March issue of the Agronomy Journal, notes that certain findings are contrary to the general belief (assuming carbohydrate reserves to contribute to the well-being of the grass.): "Alfalfa and bluegrass grown under low potassium nutrition had significantly higher water soluble carbohydrate percentages than those grown under high potassium nutrition." It would appear that the two supposedly advantageous effects, high carbohydrate reserves and abundant potassium, are antagonistic?

BOON FOR GOOD GRASS

A report by H. D. Kerr, Missouri, on Selective Grass Control With Siduron, appeared in the April Weed Science. Dr. Kerr documents that siduron (Tupersan) does a remarkably effective job in "separating the sheep from the goats". Annual grasses, especially pests like crabgrass and barnyardgrass, were generally killed without injury to the major turfgrasses. Seed of tolerant grasses is uninjured when mixed with siduron and stored for 12 months, (but crabgrass and barnyardgrass seed then died as it sprouted). It would appear as if there is some value to siduron as a seed coating! Herbicidal action appeared to be localized in the roots. Weed grass control was most satisfactory if the roots contacted the siduron soon after germination. It is interesting to note that nimblewill is highly susceptible to siduron; this suggests a means for reducing this lawn pest of the Midwest, for which there has been no selective control since Dow withdrew Zytron.

MORE ABOUT POA ANNUA

Dr. James Beard, Michigan, Institute advisor, discussed response of *Poa annua* to temperature and other factors, in the USGA Green Section Record, reprinted in California Turfgrass Culture (January). We have noted previously that *Poa annua* is the foremost golf course weed, yet must often be coddled because it so dominates the greens.

The Michigan research notes that the best temperature for *Poa annua* top-growth is between 60 and 70 degrees F., rootgrowth between 55 and 65. Under higher temperatures roots increasingly die, weakening the grass, and there is decline in shoot growth. This stress under high temperature is believed to result from a decline in protein, its production inhibited when temperatures rise to 100 degrees and above. *Poa annua* has its own air-cooling system through transpiration, and it can be kept cooler by mid-day syringing and encouraging air movement over the green.

Poa annua is also more susceptible than most grasses to damage by low temperature. "Research at Michigan State University shows that annual bluegrass --- is relatively susceptible to low temperature kill compared to others, such as creeping bentgrass and Kentucky bluegrass." Lush, watery growth stimulated by abundant nitrogen with little potassium encourages winterkill. Damage is usually about time of spring thaw, when the grass is most susceptible. Light ice or snow cover is generally not harmful, but standing water may be.

MORE ON POTASSIUM FERTILIZATION OF TURFGRASSES

Rhode Island researchers, reporting in the March Agronomy Journal, investigated The Effects of Nitrogen-Potassium Levels on the Growth and Chemical Composition of Kentucky Bluegrass. This research casts some doubt upon the usefulness of high potassium levels, although (as is well known) some potassium is needed. With moderate levels of nitrogen, high levels of potassium were actually detrimental. In general the higher the nitrogen level, the greater the advantage from increased potassium, although at levels above 400 ppm potassium generally resulted in reduced growth regardless of nitrogen. It was interesting that potassium increased the blade width of bluegrass; we tend to think of genetic factors, and to a lesser extent density of planting, controlling texture!

MORE ON GRASS FOOD RESERVES

A group of the University of Massachusetts researchers reported in the March Agronomy Journal on Factors Affecting Carbohydrate Reserves of Cool Season Turfgrasses. The researchers regard reserves of carbohydrate to be advantageous, enabling the grass to withstand adversity. This is the conventional assumption, but as reported in the last Harvests has been challenged to some extent in other research. In any event carbohydrate reserves were the focal point of this study, and their level corresponded closely to soil temperature (reserves low when temperature is high), and with nitrogen fertilization (low under high nitrogen fertility). There is nothing very new about these conclusions, but it is good to have some experimental documentation. It may be of interest that Merion Kentucky bluegrass contained higher total percentage of carbohydrate than a Colonial, creeping or velvet bentgrass all through the season.

POA ANNUA TOLERANT

Juska and Hanson reported in the May Agronomy Journal on Nutritional Requirements of Poa annua. Poa annua responded generally to fertility and growth conditions the same as Kentucky bluegrass, but seemed more tolerant of the extremes (such as acid condition of soils and poor ion exchange capacity). It is theorized that Poa annua does well under certain extremes not because it prefers these conditions, but because competition from Kentucky bluegrass or other turfgrasses is then so much less. That is, Poa annua is somewhat more tolerant of poor growing conditions including low fertility and low pH.

WINTERSEEDING IN ARIZONA

A research report by Kneebone and Major appeared in March-April Crop Science, concerned with differential survival of wintergrasses in Arizona, seeded to differing selections of bermudagrass. While no toxic substance could be isolated that influenced establishment of wintergrass, there was greater failure to survive when the overseeding was planted to certain bermudas (such as Ormond and Tifgreen) than to Arizona seeded (common). This was especially noticeable with ryegrass, and a mixture that included Highland bentgrass -- Kentucky bluegrass -- Pennlawn fescue. Incidentally, it is interesting to note that this mixture of three quality species is recognized as a winterseeding blend for Arizona, where ryegrass has so dominated winter plantings. Just what substance toxic to overseeding (or greater amounts of it) occurs in certain strains of bermudagrass as compared to others, still remains a mystery.

BLUEGRASS SEED SET

Researchers at Washington State University report upon the influence of temperature during flowering, upon seed set of Kentucky bluegrass, in March-April Crop Science. High temperatures (above 90° F.) reduced seed weight, pollen viability and seed set. The degree of damage increased gradually as temperature was increased to 110° F. However, high temperatures during flowering had no effect upon germination of the seed.

NITROGEN SOURCES

A study in North Carolina reported in the May-June Agronomy Journal shows that crop response to nitrogen is disappointing from slow-release fertilizers, in comparison to urea or a urea-wax material being tested experimentally. Nitrogen recovery from ureaform and cottonseed meal was generally less than 50 percent; it was considerably higher from urea or urea-wax. Dr. McCants suggests that fast-growing vegetation generally makes full use of fast-release nitrogen.

PERMANENT PASTURES

There is still some use of lawngrass species for pasture, and perhaps there should be more. A report by Decker and colleagues, Maryland, in the March Agronomy Journal, shows how Kentucky bluegrass pastures can be made more productive, more economically (than by fertilizer application), by inter-seeding crown vetch or birdsfoot trefoil into slits made into the bluegrass sod.

IV. FROM THE FIRING LINEFOR BETTER HOMES AND GARDENS

It is good to have an Institute assignment for a story to appear in Better Homes and Gardens, circulation over 7 million. The story deals with alternative types of lawns, for which there are many choices today among the array of fine lawngrass varieties. Although Better Homes and Gardens has a tradition of staff rewriting and condensation, it is hoped that the numerous mentions of grass names can be retained, to better acquaint the buying public with what is available today in quality turfgrass types.

STORY IN EDISON GARDEN NEWS

George Jecmen, editor, sent us complimentary copies of the Edison Garden News, issued by the Commonwealth Edison Employee Garden Club. From time to time he has used Institute material, and writes: " -- I have availed myself of releases which you had so kindly made available for this purpose". Bentgrass growers will be interested in the item appearing on page 12 of the February issue, viz. :

The Virtues of Bentgrass

"Few lawn grasses are so elegant as is bentgrass. Bentgrasses are inevitably chosen for golf greens and luxury lawns. But did you realize that they are utilitarian too?

"A test in Ohio indicates that a Highland bentgrass blend best protected soil on a steep slope at a highway cloverleaf. Both Highland and creeping bentgrass (Penncross) make an almost impervious mat along damp water channels. Rooting at the stem joints, bentgrasses build a dense mat second to none for closely clothing the soil and protecting its surface from rain wash."

R. W. Schery, The Lawn Institute.

PICTURE STORY SCHEDULED

A selection of photographs and text (emphasizing quality lawn species), has been turned over to Mort Waters, editor for Family Handyman, for a story that is to be lavishly illustrated in the September-October issue. Story deals with repairing and starting lawns from seed. In the text prepared by Dr. Schery an offer was made in the final paragraph, to furnish a reprint on modern lawn varieties, to anyone wishing to send a self-addressed, stamped envelope, to the Marysville office.

IN GOLF COURSE SUPERINTENDENTS REPORTER

The Institute is acknowledged by Charlie Calhoun, in the June issue of the Iowa Golf Course Superintendents Reporter. Exerpts: " -- mentions seeds and seed mixtures. Bob says that weed-free, crop-free seed is available if the purchaser is willing to pay a fair price for the care needed to produce this type of seed" -- "Incidentally, as to whether bluegrass or fine fescue takes over, my experience suggests that much relates to chance. -- but certainly high fertility favors the bluegrasses (especially elite strains such as Fylking and Merion), ---". Calhoun mentions that several reprints were received and adds: " -- several papers -- about turf seeds -- pertinent points in this very worthwhile material will be provided in future issues. Plan to watch for these and build up your knowledge for the August meeting when the theme of the month will be 'All About Seed and Seeding'. Then you can go home and do it right."

FLATTERING REVIEW

The book review section of the American Horticultural Magazine, winter, 1969, discussed McCall's Garden Book, edited and largely authored by Gretchen Harshbarger. The Institute handled discussions of lawns and soils for Mrs. Harshbarger, for which the reviewer gives credit, "Dr. Robert Schery contributed material on lawns, soils and plant foods; --". The reviewer concludes with the flattering comment, "If a beginning gardener were limited to one book, this should be it; a better choice would be difficult to find."

LAWN MAINTENANCE STORY

We were very pleased to have the Institute story, Modern Lawn Maintenance, appear in the April issue of Building Maintenance and Modernization magazine. This reaches a readership not necessarily covered by the press kits and stories in the popular gardening field. Discussion of today's lawn tending equipment was the vehicle for mentioning the better grasses and their care.

Sample mentions: "Choice of equipment will be guided by needs of the turf. Kentucky bluegrass, for example, has somewhat different requirements than Highland bentgrass, and fine fescues can actually suffer from excessive care." Under the heading "Kentucky Bluegrass--Fine Fescue Turf", one reads: "Lawns blended of fine fescues and natural bluegrasses such as Kenblue, Park and Arboretum require relatively little care. More luxurious bluegrass varieties such as Fylking, Merion and Pennstar merit somewhat greater attention. Fine fescues are especially well adapted to shade, drought and poor soil; familiar varieties include Chewings, Highlight, Illahee, and Pennlawn." -- "Creeping bents such as Penncross (much used for golf greens) require more intense, professionalized maintenance than Colonial bents such as Highland, Exeter, Astoria and Holfior, which get along with somewhat less attention. All should be mowed rather frequently, close (less than $\frac{1}{2}$ inch for creeping bents, up to 1 inch for Colonials such as Highland) at least twice weekly during the growing season."

WINTERSEEDING REVIEW

In his "Turf Tidbits" column in the April Turfgrass Times, Holman Griffin discussed some of the newer varieties contemplated for winterseeding bermudagrass greens in the South. Griffin mentions the increasing use of fine-textured grasses in place of conventional ryegrass, but thinks that the named varieties of perennial ryegrass may now regain some of the lost ground for ryegrass. He quotes Dr. Funk in describing Manhattan, Norlea, NK-100 and Pelo, thinks that these show promise and should be watched for future developments.

IN SEED WORLD

The March 28 issue of Seed World carried the item "Spring Lawn Requirements", with by-line for the Institute. Sample excerpts: "There is a lot of excitement these days about special grasses. You may have heard your golf pro talk about Penncross creeping bentgrass -- Kentucky bluegrass and fine fescue varieties are much used, and for low-mowed lawns in moist climates perhaps Colonial bentgrasses such as Highland and Exeter. ---"

AUTUMN STORIES ACCEPTED

Lawn stories have been submitted and accepted for autumn appearance in Better Homes and Gardens, Better Turf and Garden, Floral Magazine, Horticulture and Southern Turfgrass Newsletter. The story in Better Homes and Gardens is a review of current type grasses with a little about how they should be managed, the Better Turf and Garden story on the application of weed-and-feed products to bluegrass lawns in autumn, the Floral magazine story on autumn seeding-feeding-weeding, the Horticulture story depicting the way different lawngrasses thatch, and the Southern Turfgrass item on winterseeding. A color photograph taken at the Institute grounds will accompany the Floral magazine presentation, and we are hopeful that copies will prove sufficiently economical so that we may distribute reprints with the color enhancement. Three color photos taken on the Institute grounds will accompany the Better Turf and Garden story.

INSTITUTE QUOTED

The May issue of the Avant Gardener, semi-monthly publication of the Horticultural Data Processors, New York, carried mention of the Institute. The items begins, "Are pruning and mowing with chemicals feasible? For lawns the idea is generally vetoed by experts, such as Dr. Robert W. Schery, Director, The Lawn Institute (Route 4, Marysville, Ohio 43040). Dr. Schery says that -----".

IN FORESTRY MAGAZINE

The following excerpted letter was printed in the May issue of American Forests, following our questioning of an insert in the December issue about the ecological lessons to be learned from letting weeds reconquer the lawn. "There is nothing novel about the box on page 46 of your December issue in which Professor Bates extolls crabgrass, dandelions, et al. What you fail to note is that there is just as much of an ecological lesson in a tended lawn as in an untended one -- perhaps even more, since it better reflects reality. The interplay between species is marked, and the result far more quickly readable under managed conditions than with nature's drawn-out natural selection.... I don't think you need to turn the lawns into natural areas as you suggest -- which will not be done in any event -- to teach the kids ecology. In fact, mowing, too, can be therepeautic, in this age of insufficient chores for the kids..." R. W. Schery, The Lawn Institute.

BETTER CROPS

We were pleased to note that the American Potash Institute magazine, Better Crops With Plant Food, continues to publicize non-agricultural subject matter as well as the major food crops. In the first 1969 issue the magazine carried the staff story Can Your Turf (Lawn) Take it This Year? As might be expected emphasis was on fertility, but it is good to have mention of the important lawngrasses.

MENTIONED IN GOLF REPORTER

Charlie Calhoun, editor of the Iowa Golf Course Superintendent Reporter, picked up information concerning Fylking and other Kentucky bluegrasses from Institute release materials, and featured it on the back cover of the May issue of his Reporter. The Institute is credited with name and address.

IN INSTITUTIONAL MANAGEMENT

The magazine, Catholic Institutional Management (formerly Catholic Building and Maintenance) again made good use of an Institute press kit, compounding several items into a credited story in the March-April issue. The item was entitled "Good Seed Makes Good Sod", and contained such statements as the following: " -- at average price, a purchaser of good lawn seed gets more than 10,000 vigorous seeds for a penny -- you can afford top quality seed because it is really the most economical." " -- for the quality demanded of a modern lawn, the grass must be fertilized. Bentgrasses should be fed liberally -- bluegrasses perform well on only half this much, and fine fescues on only a fourth."

INSTITUTE QUOTED

The April 15 issue of the Avant Gardener, published by-monthly from New York, quotes the Institute at length on pages 99 and 100 regarding the threat of thatch. Mentioned, - "In looser-growing turf like bluegrass-fine fescue, it may or may not build up sufficiently to be detrimental."

SEED WORLD INFORMS

We were very pleased to have the Lawn Institute represented in the April 11 issue of Seed World, not only with a cover photograph, but with authorship of the "Bulletin Board Suggestion" of the week. The latter was entitled Bluegrass Breeding Shows, and contained such statements as these: "Only a generation ago Kentucky bluegrasses and fine fescues were rude pasture species --. Came America's migration to the suburbs, and all of this changed within a few years. Merion Kentucky bluegrass -- was the first elite bluegrass heralded for fine turf only. Classical examples among other species are Chewings fine fescue from New Zealand, and Highland bentgrass from the Silverton Hills of Oregon."

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"WHAT THEY ARE SAYING: ---- "

"Thank you very much for the reprints entitled 'Improving an Old Lawn'. I appreciate the prompt handling and courtesy you have shown in filling my request. The reprints will come in handy as a source of information in our Grounds Maintenance program. Once again, thank you for your attention in this matter."

Leo P. Boucher, Yale University

"We will look forward to hearing from you any time you have news or subjects of importance that you would like us to consider for publication in LANDSCAPE INDUSTRY Magazine."

R. W. Morey, Publisher.

"If available, we could use a nice supply of your reprint 'Seed and Feed to Hex the Weed'. We supply these to our retail dealers who in turn make them available to their customers."

Robert C. Oliger, Oliger Seed Company.

"We follow your stories and releases with interest -- keep up the good work!"

Dr. K. T. Payne
Michigan State University.

"WHAT THEY ARE SAYING ---" (Continued)

"I have recently read your article on Modern Lawn Maintenance in the April issue of Buildings Maintenance and Modernization -- We have a new hospital here in Atlantic, Iowa, and we are just starting our lawn maintenance. We would appreciate any and all literature or assistance in this matter."

Harold C. Parks, Administrator,
Cass County Memorial Hospital

"We cordially invite you to participate in the dedication of our new \$1 million addition to Williams Hall on the OARDC campus -- with the ribbon cutting at -- 11:45 -- We are extremely hopeful that you can attend the dedication of this new facility."

Roy M. Kottman, Director, Ohio Agricultural
Research and Development Center.

"May we express our continuing pride in having you as a contributor. Our contributors are the foundation on which the authoritativeness of The World Book Encyclopedia rests."

Robert O. Zeleny, Sr. Vice-President
Field Enterprises Educational Corporation.

" -- your contribution of four points about Highland is exactly what is needed. We will make excellent use of this and can do so without making changes. We would prefer to have this printed under your by-line and will do so unless you object."

Wally Hunter,
Oregon Highland Bentgrass Commission.

"Thank you very much for the information you recently sent -- Acknowledgment of your contribution is included in our list of source materials, and we want you to know we appreciate your efforts on our behalf."

Mrs. Winifred H. Estes, Market Research
Analyst, Henderson Advertising Agency, Inc.

"I had read your very fine article 'Evaluation of Turfgrasses for Roadsides' in the 27th Ohio Short Course publication and meant to ask for copies of the three articles you listed there, namely 'Turfgrass, America's Growingest Crop', 'Lest Hunger Haunt Your Lawn', 'In Praise of Unpampered Turf'."

Dr. Robert W. Duell
Rutgers University

"Yours is a very important subject which treats with every homeowner's needs, .. and permit me to add that the material included is very scholarly, so that the reader is getting both timely and valuable information about a subject he indeed should be keenly interested in. Thank you for past courtesies, and I shall be looking forward to more such invaluable copy for inclusion."

George C. Jecmen, Editor
Edison Garden News

"Thank you for your letter of May 15 and the accompanying article on 'Overseeding for Winter'. I am very pleased with this article, and I am sure we can use it in our Newsletter. I think the time to release would be in August. Most overseeding is done between September 15 and December 15."

E. Ray Jensen
Southern Turf Nurseries