

BETTER LAWN

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HARVESTS

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NEW MEMBER WELCOMED

The Lawn Institute is delighted that during the quarter, the McKenzie Seed Co., Ltd. has joined the Lawn Institute. We welcome this important seed house, and appreciate the fine continuing efforts of our membership committee, headed by Gordon Newton, Northrup, King.

PENNCROSS BENTGRASS ASSOCIATION AFFILIATES WITH INSTITUTE

The Lawn Institute is proud to announce affiliation of the youthful Penncross Bentgrass Association with the Lawn Institute. Bill Rose, Route 1, Box 357, Jefferson, Oregon 97352, serves as contact for the Association. Bill is also influential in Lawn Institute affairs, through his membership in bluegrass and other northwestern associations. We are very grateful for the confidence shown in the Lawn Institute by the Penncorss growers.

NEW ADDRESS FOR MEMBER

The Green Acres Sod Farm and Landscaping Co., Ltd., announces that its new address will be 2425 Grand Boulevard, N.D.G., Montreal 28, Quebec.

SEED STORY IN BETTER HOMES

"How to Buy Lawn Seed", prepared for Better Homes and Gardens by Dr. Schery appeared in the April issue of that magazine. Editors revised the story into a question-answer format, viz:

Question. What are the best fine-textured lawngrasses?

Dr. Schery. - - Included are familiar favorites such as the Kentucky bluegrasses, the finer red fescues, the bentgrasses and a few special-use species - - a great many Kentucky bluegrass varieties are offered these days, the best known of which are Merion and Park. Merion is a top quality, pure strain variety, while Park is derived from a blending of a dozen outstanding selections - -

In their efforts to condense, the editors sometimes distorted precise meanings, but on the whole BH&G's 7,000,000 readers should be better informed on lawnseed this spring. Other questions related to shade and sun, steep banks, and "Is a higher priced blend worth the extra money?" A sample analysis of a quality blend is given and explained.

INSTITUTE MAP USED

The January issue of Lawn/Garden/Outdoor Living carried a map for the article "Pre-emergent Crabgrass Controls for 1967", technical information for which was prepared at the Lawn Institute Marysville offices.

RADIO-TV INFORMATIONAL KITS LAUNCHED

A slightly enlarged version of the spring Press Kit was mailed to a select group of about 160 radio-TV stations in mid-February. This represents modest implementation of suggestions offered at the annual meeting of 1966. "Trial balloon" mailings made in autumn indicated that there was scant agreement among radio programmers as to preferred length, format, type of reproduction, and so on. Most personalities seem to prefer adapting information to their own distinctive styles. Thus it is hoped that the radio-TV field might be serviced economically through the written word rather than through specially prepared tapes, by using the basic materials sent to newspapers. Stamped, return cards with the radio-TV kits will give some indication of response. Unfortunately, there is no way of checking use of these kits on radio the way a clipping service samples newspaper appearances. We are very grateful to Institute members who have kindly sent us names and addresses of radio outlets they feel influential in their trade areas, and for suggestions about the radio kits.

NEWSPAPER PRESS KITS SENT

In mid-February the customary Lawn Institute press kit, in its distinctive green folder, went to a select list of approximately 800 names. An elite group of newspapers and writers is serviced, especially in the northeastern quarter of the nation. Example kits go to all members, and it is hoped that members will be helpful in passing along these informational items to their local newspapers. The press kits are not inexpensive to produce, and there is considerable drain when they are merely tossed aside while scores of influential newspapers are neglected for reasons of holding down the cost of a large production run.

WINTERSEEDING OBSERVATIONS IN THE SOUTHWEST

A visit to the Southwest during February enabled Dr. Schery to check on winterseeding practices there, and on performance of tests with the University of Arizona and the University of California partly sponsored through the Institute by donation of seed. Here is a summary of Dr. Schery's notes and impressions.

In desert country east from southern California, Arizona especially, there seems to be an increasing tendency to dye the permanent grass green rather than plant wintergrass at all. This is not true for the posh properties, such as may cater to winter tourists, but seems to be an increasing tendency for turf maintained on a limited budget. Especially this winter has it been difficult to establish and maintain wintergrass, in that there has been almost no rainfall occurring from western Texas to the coastal mountains of California. It was noted, for example, that city-maintained malls (such as the "miracle mile" in Tucson, Arizona) is now dyed green rather than planted to wintergrass, and that the same practice is employed on a number of commercial properties (such as filling stations) from Oklahoma to Arizona. The appearance is not "fresh" nor as attractive as where wintergrass is grown, but suffices to dress up the property a bit compared to the drab appearance of dormant, dry bermudagrass. Very few homes in average-income sections seem to bother either with wintergrass or dyeing, but are rather content to live with brown, crumbly bermudagrass during winter. Except possibly in some sections of California, the market would seem to lie chiefly in affluent circles - golf courses, tourist facilities, and wealthier neighborhoods.

Steve Fazio, now head of the Horticulture Department at the University of Arizona, indicated that department tests have convinced the researchers there that there was no damage to the permanent grass by the maintenance practices accorded ryegrass winter-seeding. That is, fertilization, mowing, watering, etc. did not damage the Bermuda when practiced independently of a ryegrass winterseeding. However, where the wintergrass was planted, there frequently seems to be repression and damage to the permanent Bermuda, vaguely "winterkilled", which is being surmised as due to shading by the ryegrass. Fazio indicated that where dense stands of bentgrass occurred the damage was equally as heavy as with ryegrass, and that the Bermuda had difficulty reviving through the mat that developed. It is well recognized that Bermudagrass is not tolerant of shade.

Dr. Robert Kneebone has been chiefly in charge of the research plantings at the University in recent years. He finds that some winterseeding combinations seem more repressive to the bermudagrass than do others, and is pursuing the approach (for which some evidence was found in Tennessee years ago) of isolating an "extract" from wintergrass that is toxic to Bermuda. None of his winterseeding plantings looked very good this year, being thin (probably from drought and inability to water as much as would be desirable). Kneebone does not seem to be favoring any particular type of winterseed, and where dyeing is used instead of winterseeding suggests use of a knockdown chemical (such as diquat or paraquat) before "painting", as well as a pre-emergent chemical (such as dacthal) to control winter annual weeds. As a plant breeder, Dr. Kneebone is searching for various pure lines of bermudagrass that can be propagated from seed; one possibility would be to develop a rather loose, open strain to be employed on a two-grass system with annual plantings of wintergrass.

At the Riverside campus of the University of California, Dr. Youngner mentioned a Rohm and Haas growth retardant, Mendok, which seems to retard common bermudagrass (but doesn't bother bluegrass). Possibly this might have advantage in pre-treating bermuda for winterseeding. At Riverside and other desert locations it is possible to pretty well maintain bluegrasses and other cool-season species as permanent turf, so that the seed furnished Dr. Youngner for winterseeding tests this year was utilized for an extensive series of trials in San Diego County. One combination suggested for fairways (noted when visiting the Santa Ana substation) is Highland bentgrass, a low-growing bluegrass (Fylking is being suggested) and bermudagrass. There seems to be a fair market for this sort of combination in southern California, which probably accounts for a good bit of the disappearance of Highland bentgrass in this area.

An extensive tour of the golf course winterseeding trials was made with Jim Breece, in San Diego County, of which time permitted visiting four of the five or six locations where duplicated trials were out, ranging from the northern part of San Diego County to San Diego itself. At the Pauma Valley golf course the winterseedings were made into common Bermuda, on the fairways. Those made with fine fescue and Kentucky bluegrass looked pretty good on February 7 (although it is reported the bluegrass had come along slowly). Highland bentgrass by itself did not establish, possibly because of too cold average temperatures for this variety (known to be a slow starter in cool soil). Breece seems to favor the darker color and finer texture of the fine-textured plantings in contrast to ryegrass comparisons, and will probably recommend a fine fescue-Kentucky bluegrass combination if asked for an opinion. Black-white photos were taken of the several test plots at this and other golf courses.

At Lake San Marcos golf course the winterseedings were made onto Tifway bermudagrass. In this denser bermudagrass all stands were rather thin at time of visit. Temperature

is said to average warmer than at Pauma Valley, but aerification or some other form of mat removal would seem needed for a good establishment of winterseeding. Preferences and rating comparisons were about as at Pauma Valley.

At La Jolla country club the winterseedings were so contaminated with annual bluegrass and various winter annual weeds that it was hard to discern effects and differences, especially in that the fairway had been mowed just prior to visit. In this somewhat moister, warmer section of the county there was pretty good "wintergrass" cover if from nothing else than volunteer annual bluegrass, but one might presume that fine-textured seedings would give added insurance where the annual bluegrass did not volunteer.

The final set of trials visited was at the Stardust country club, in San Diego. The fairway was of common bermudagrass, aerified prior to winterseeding. Here, as at La Jolla, there is more winter growth than in the drier, cooler locations. Particularly noticeable was the "tufting" of weeds and wintergrass in the aerifier holes, where loosening of the bermudagrass mat seemed to have provided a better chance for seedling establishment. Ryegrass was much taller than the plantings of Kentucky bluegrass, fine fescue, or Highland bentgrass, supporting the contention that ryegrass winterseedings need more mowing than do those of fine-textured species. Of the fine-textured plantings, fine fescue was the most attractive at time of visit, and seemed preferred by the county agent.

All in all nothing was noted in this Southwestern swing to change Dr. Schery's conclusions in the report provided the Fine Fescue Commission a few years ago. There would seem to be a modest but steady demand for winterseed for special turfs (such as golf courses and resorts), and for fine-textured grasses possibly to make some inroads as techniques for their convenient establishment become widespread. It would seem overly optimistic, however, to expect any sudden surge of increased usage.

BLUEGRASS-FESCUE PLAYING SURFACE

While fine fescue-Kentucky bluegrass winterseedings to southern golf greens have been noted as first-rate playing surfaces, we have not had much experience for similar use away from the golf course. Correspondence with Bradley Gaylord, Chatham, Massachusetts, concerning some of his questions, reveals the importance of this combination for English croquet, apparently as dilligently played in the Cape Cod area as is golf. Mr. Gaylord writes, "The game we play is 'golf croquet' - - with 3 lb. brassbound mallets and lively plastic balls, through cast iron wicket with only 3/8" clearance. No^o bentgrass is very unsuitable for this game as one simply cannot control the ball. A good solid turf permits one to position a ball with surprising accuracy - - point one of the game. Our turf is 40% Merion bluegrass and 60% Pennlawn red fescue - -".

WINTERSEEDING TIFTON DWARF BERMUDA

Ray Jensen in his Southern Turf Newsletter, reviews performance of Tifton Dwarf Bermuda, the rage for the last year for southern golf greens. As to winterseeding, Jensen reports, "Most Tifton Dwarf sods were overseeded with multi-mixture seed. This is in contrast to our other surveys which showed an overwhelming preference for ryegrass along - - . Some superintendents experienced difficulties - - inability of seed to penetrate the mat of grass - - .

Our experience in overseeding 18 greens last fall convinces us that Tifton Dwarf can be overseeded successfully. October 2 we verticut the greens lightly. Ten days later we seeded /20 lbs. of ryegrass/, topdressed and then seeded one pound of Highland bentgrass and three pounds of Poa trivialis - - before Christmas the greens were in excellent playing condition."

RADIO KIT RESPONSE HEARTENING

As an amplification of the seasonal press kit mailing, kits were sent this year to 164 radio-TV stations under a separate covering letter, and with a return card asking for opinion. There was approximately 15% return of cards, plus a couple of telephone calls. This response is sufficient to provide an indication of suitability of the press kits for radio-TV coverage.

It is heartening that all of the cards except one (this one indicating duplication of material received at the newspaper) expressed interest and satisfaction in the kits, wanted to receive them in the future. Certainly use by the 24 responding stations alone would justify this radio mailing, and gives a fine hard core of radio users upon which to build. Equally heartening is the general acceptance of the same kit as goes to the newspapers, suggesting that radio-TV editors prefer to prepare their own presentation from authoritative text rather than to have tapes, recordings, or other rigid forms of presentation. Most of the return cards contain valuable comments upon preferred length of items, which will be helpful in designing future kits. But it does seem as though basically the same type of presentation offered newspapers is suitable for radio-TV outlets, and that for very little added cost radio-TV can be serviced as well as newspapers through preparation of the regular seasonal press kits.

PHOTOS FOR NATIONAL RELEASE

A call from Bill Price of the ASTA office indicates that Ketchum, MacLeod and Grove, Inc. will use Institute photos in the national beautification supplement entitled "Beautify Your Corner of America", being released to newspapers nationally. An enlargement of a scene taken on the Institute grounds was mailed immediately to Washington.

FROM "BETTER LAWNS FOR YOUR HOME"

In addition to receiving credit for the cover photo on the leaflet distributed at the New York Flower Show under the above title, the Lawn Institute can be pleased with some of the positions taken therein. The leaflet was prepared by Rutgers University personnel. One of the ten steps for establishing lawns states, "Plant the right kind of grass. Kentucky bluegrass and red fescue are the foundation of good lawns. Bargain mixtures contain coarse, quick growing, temporary grasses."

In describing kinds of lawn grasses, the leaflet states: "Choose a mixture containing a high percentage of permanent fine-textured grasses - - beware of bargain mixtures. They contain a high percentage of temporary and coarse-textured grasses. The best feeding, mowing and watering practices cannot change such grasses into a satisfactory lawn."

In discussing "Grasses for Permanent Lawns", the leaflet states: "Kentucky bluegrasses are best adapted to sunny conditions and fertile soil - - recover quickly in the fall

with return of cooler and more moist conditions. - - Merion Kentucky bluegrass is a superior strain selected from common Kentucky bluegrass. - - Red fescues are well adapted to shade conditions - - They tolerate dry and infertile soils in sun or shade." Several varieties of fine fescue are enumerated.

RADIO MAILING EFFECTIVE

The response of radio-TV stations to a limited mailing of regular Institute press kits has been surprising. Mention has already been made of the invitation to appear as a guest on the Ruth Alampi program in the New York area, and CBS Philadelphia telephoned asking if Dr. Schery could appear on two 40 minute programs in Philadelphia which invite questions by telephone. These would seem excellent opportunities, and it is unfortunate that the low state of the Institute budget does not allow for travel of this sort.

WILLAMETTE VALLEY LETTERS

While attending the Oregon Seed League Convention, Dr. Schery was much impressed by seedgrower efforts to reach a solution to the field burning problem, which seasonally becomes objectionable to urban citizens. Jim Williams, Oregon State University, Information Specialist, furnished names and addresses of western Oregon newspaper editors, who received a letter from Dr. Schery in mid-January, the time Mr. Williams thought would be most propitious. It was felt that an "out of state" opinion recognizing the strides made by the industry would be welcomed locally, to help show that real efforts are being made by growers to be "good neighbors" and helpful in reducing the smoke nuisance through many concerted activities.

INSTITUTE STORY IN TURF BULLETIN

"Top Lawn Grasses Need Little Mowing", by Dr. Schery with Institute byline, appeared in the Massachusetts Turf and Lawn Grass Council "Turf Bulletin", December, 1966, issue. Kentucky bluegrasses and fine fescues are listed by variety, and Highland bentgrass is mentioned by name.

TOURIST COURT STORY

Editors of the Tourist Court Journal, "The National Magazine of Motel Management", sent a marked copy of the February issue, which contained a staff report on "How to Have a Beautiful Lawn at Your Motel". The story was compiled almost completely from Lawn Institute materials, for which credit was given in the text. Viz: "According to Director Robert W. Schery, Lawn Institute, Marysville, Ohio, and author of the paperback, The Householder's Guide to Outdoor Beauty, whose suggestions are nearly a 'magic formula' to success in achieving a beautiful lawn, - - you should carefully consider, according to Schery, the following tips and information."

The article proceeds to give excellent mention to Kentucky bluegrasses, fine fescues and Highland bentgrass, advising to avoid coarse haygrasses. It suggests one of the more expensive blends from a reliable seedhouse, viz. " - - know the difference in a 'bargain' and quality. Says Schery, 'Although high price does not assure quality, exceptionally low price is almost a guarantee of inferiority.'"

Quality factors in seed including crop content are reviewed, and appropriate planting time suggested. Mowing, fertilization, watering and weeding are then tackled as subject

headings, most of them responsibly reported but reflecting unfamiliarity by the staff reporters with lawn tending and terminology. For example many of the chemical names are misspelled, and under "Weeding" there is complete confusion between pre-emergence and post-emergence crabgrass remedies.

We appreciate very much the Tourist Court Journal publicizing quality lawn seeds, and crediting The Lawn Institute so fully. A few reprint copies are being made to acquaint the membership with the story, and possibly serve for specialized distribution; however, because of the inaccuracies in certain sections (especially "Weeding"), we will not make an extensive effort to circularize this story through the usual Institute channels.

ENCYCLOPEDIA AMERICANA REQUEST

The editors of Encyclopedia Americana have requested the preparation of several items by Dr. Schery, as part of the current revision program. While not related specifically to lawns, recognition by major encyclopedias speaks well for the Institute.

STORY SUPPLIED BORDEN

Story to be distributed through Borden Company public relations facilities was prepared in early April, for use during the 1967 seeding season. The item emphasized the partnership of good grass and ample fertilization of the seedbed with a lawn food rich in phosphorus. Sample quotes: "As standards of excellence rise and more homes are beautified with elite bluegrasses, lawn fescues and luxurious bentgrasses, halfway measures are no longer acceptable. After the seedgrower has taken pains with the finest varieties, the packagers specify clean seed free of weeds and coarse grasses, - - there is little excuse for risking the investment by skimping on soil fertility." The story also points out that it was the rich phosphatic soils of Kentucky that gave Kentucky bluegrass its name, and that phosphorus in a fertilizer is important not only for good root growth of all grasses, but "phosphorus also stimulates rhizome growth of Kentucky bluegrasses and fine fescues, and stolons by which Penncross and Highland bentgrass spread."

IS LAWN SERVICE EXPANDING?

The Lawn Institute recently received a telephone call from a market research organization in Fairfield, New Jersey, wanting information on potentialities in the field of contract lawn service. Apparently there is enough demand for specialized lawn service operations to whet the appetite of larger firms. Heretofore lawn service has seemed to be chiefly confined to local outfits, hiring and supervising unskilled labor, except in certain southern locations (California, Florida) where lawn tending is essentially year around and often the preferred occupation of certain ethnic groups (such as nationals of Japanese extraction, in California). We wonder how rapidly specialized service to the homeowner will grow nationwide?

LAWN SEED INDUSTRY REVIEW POPULAR

We were rather surprised that the story "The Lawn Seed Industry Comes of Age", appearing in an agronomic publication (Crops and Soils) proved as popular as was the case with garden supply outlets in urbanized market areas. After reprints of the story were distributed to members a number of requests for additional reprints came from eastern houses.

FOR HOME GARDEN MAGAZINE

The Marysville office was happy to prepare a story for the Home Garden magazine, built around the answering of ten questions posed by the magazine on spring lawn needs. In discussing weed preventers, fertilizers, and such like, it is possible to mention lawn grass favorites and their responses to types of care. This helps add to the "ferment" about good lawn grasses.

CUSTOM STORY

In response to a request from Venus Barnett, Dr. Schery prepared a "Tennessee Lawns" story for the Kingsport Times. Mrs. Barnett sent a tear sheet showing her adaption of the story in the February 17 issue. She writes, " - - you so kindly wrote me a custom article on 'Tennessee Lawns'. It is certainly a fine article and I appreciate it very much."

The story opens with discussion of preliminaries prior to seeding a lawn, and advises, "Buy only the best quality grass seed - - a safe choice is a bluegrass blend containing - - fine fescues". It continues, "The fine fescues are especially good in shady areas. They endure drought - - sprout quickly - - . Fine textured types are best because they have narrow leaves. The care of Kentucky bluegrass and fine fescues is about the same - - ." Information is then given on mowing, fertilizing, watering and weed control.

STORY IN FLOWER GROWER

The March, 1967, issue of Flower Grower carried the Lawn Institute story entitled "Early Spring Lawn Care". We are grateful to the editors of Flower Grower in requesting this story of Dr. Schery, giving opportunity to mention quality lawn seed and good lawn maintenance practices at this important season of the year. Reprints of the story have been sent members, and distributed through usual channels.

BULLETIN OF THE NEW YORK HORTICULTURAL SOCIETY

Ralph Bailey, Garden Editor for House and Garden, called the Institute offices from New York asking if a story could be prepared for the Bulletin of the New York Horticultural Society, now edited by Ira Caplin in revised format. Dr. Schery obliged with "The Lawnmaker's Year", which appeared in March. "The Lawnmaker's Year" adopts the seasonal approach, discussing Seeding, Sod and Soil, Fertilization and Weeding, as components of "Act I - March, April, May". "Act II - June, July, August" takes up Mowing, Watering and Pest Control. Throughout are references to fine textured grasses, with bluegrasses, fine fescues and bentgrasses named. This bulletin should be an excellent avenue for presenting good information to an elite audience, consisting of the amateur gardening public in the most important market center of the country.

FLORAL MAGAZINE STORY

"Now Lawns" was the title of an Institute story appearing in the March issue of The Floral Magazine. Sample quotes: " - - Now makes official the convenient catagorization of lawnseed as 'fine-textured' and 'coarse-kinds'. This is something to watch for - - " " - - the difference between an elegant fine-leaf (red) fescue and its awkward tall fescue country cousin (best left in the pasture - -)" Bluegrass, fine fescue and bentgrass varieties are cited by name. The story is being copied and will be circulated.

RESORT MANAGERS ADVISED

Resort Management magazine carried the Institute story "'Shabby Look' of Spring Lawns can be Avoided". The item was nicely illustrated with five photographs. Reprints have been circulated to members. Typical excerpts: " - - a comfortable transition - - is gained with fine-textured winterseedings such as Kentucky bluegrass, fine fescue and Highland bentgrass - - ", " -- some catching up on things left undone in autumn, such as bolster seeding with fine-textured perennial grasses - - ", " - - especially with cool-season grasses such as Kentucky bluegrass (varieties include Merion and Park), the fine fescues (varieties include Chewings, Illahee and Pennlawn), and lawn bentgrasses such as Highland", and "for bluegrass, fescue and bentgrass lawns all the purchaser need do is determine that his prospective seed blend be entirely or almost entirely of fine-textured components (the Kentucky bluegrasses, the fine fescues, bentgrasses - -)".

LAWNS IN ADULT EDUCATION

The increasing interest in lawns as a hobby is exemplified by the recent letter from Charles Elin, Gaithersburg, Maryland. "I am a teacher of Horticulture in the Montgomery County Adult Education program. I would like to know if your Institute would have any material that I could use as teaching aids. - - thanking you - - ". A representative supply of reprints was sent Mr. Elin for class use, and the suggestion offered that the "Householder's Guide to Outdoor Beauty" might constitute a useful general "text" upon which he could enlarge specifically for the local area.

NEW LAWN INTEREST

It appears that there is new interest in lawn seed and lawn products, at agriculture outlets in urbanized eastern sections of the nation. The following request was received from an International Harvester farm implement dealer in Seaford, Delaware, - Tull Brothers, Inc.

"We would appreciate receiving information that would help us present to the public the difference in qualities of seed mixtures and seed germination. We would also like information on noxious weed seed in seed mixtures." Mr. Tull was sent several Institute reprints relating to these subjects.

"GREEN THUMB" USES INSTITUTE MATERIALS

We are very grateful to George "Doc" Abraham, syndicated columnist, for further distribution of Institute views and materials to his fans and extensive readership. George sent several letters of inquiry for answer by Dr. Schery, which will be "publicly answered" in his Green Thumb column. This provides excellent exposure of the Institute viewpoint, and mention of quality lawngrasses. In addition Mr. Abraham is distributing without obligation to the Institute, reprints which we have been able to furnish. For this purpose an additional run of "Turf Tips" from the Flower Grower magazine was scheduled, sent directly to Abraham for distribution through his facilities.

LAWN PRODUCTS GRADUATE STUDY

A letter from Amherst, Massachusetts, indicates graduate interest in the lawn products field. Alan Rainford writes, "As a graduate student of business administration I am engaged in a research project - - had several discussions with Professor Harold Mosher

at the University of Massachusetts. He had told me of your work - - and suggested that I write to you for information concerning current trends - - both in the production and marketing aspects of the industry." Dr. Schery endeavored to supply information on the lawn product field, including reprints relating to the seed industry.

EDUCATION EMPHASIZES TURFGRASS

There appears to be considerable ferment in modern education, directed towards turning out technically competent career people in the field of horticulture. Apparently they are much needed to operate garden centers, for various facets of grounds maintenance, as school property managers and in various supervisory, sales and landscaping positions. Vocational courses at high school level seem insufficient to supply the needed background, and increasing attention is given "certificate" programs (usually of two years duration) at the junior college level. The February issue of Kingwood Center Notes suggests that about forty million Americans are involved in some phase of gardening as an avocation, and that the need for trained personnel to serve this expanding field is not being satisfied. You have no doubt noticed the increasing inquiry the Lawn Institute receives, for printed materials that may be utilized in the classroom.

Many universities are developing "practical" courses for students who might be interested in ornamental horticulture, but are unable to undertake the full gamut of course work for a conventional degree. The Cleveland public school system has long conducted an outstanding course of this type, and more recently a sophisticated program has been developed by the newly organized Dupage School of Horticulture in West Chicago. Organizers of a two-year horticultural course at the St. Louis campus of the University of Missouri discussed this at some length with Dr. Schery when he was in St. Louis for the turf conference. It was indicated that excellent employment opportunities exist, and a crying need for personnel with sound technical background in the handling of plants and the management of grounds. Turfgrass interests will want to keep alert to these burgeoning programs, if the industry hopes to get its fair share of trained personnel equipped to recognize, recommend and use quality lawn materials. The Lawn Institute cooperates to the extent possible, but one might wish that there were budgets available better to support educational endeavors.

GUIDING FUTURE LANDSCAPERS

The Research Department of Chronicle Guidance Publications asked Dr. Schery to review a newly proposed "occupational brief", widely used in high schools throughout the country to guide students in exploring career opportunities with their counselors. Writes Mrs. Shearer, "- - it is necessary for us to contact authorities in each specific occupational field in order to verify the accuracy of the information presented. Our potential readership among high school students is approximately 2½ million, therefore it is vital that our occupational briefs present authoritative information enabling students to make realistic career plans."

The publication will acknowledge Institute cooperation in the brief, as well as providing such copies as might be wished for the Institute files. The organization is apparently well recognized in the field of guidance, and worthy of such help as the Institute might lend. Somewhat more emphasis on understanding the quality factors in plant materials (including lawns) was suggested to the publication, in its resume regarding landscape architects.

COMMUNITY COLLEGE USE

Mr. C. Wieting, Instructor in Landscape Horticulture, Seattle Community College, asked the Lawn Institute for reprints and other materials of possible usefulness in practical teaching. He writes, "We have here a training course leading to practical professional work - plants of all sorts including turf. - - Mr. Wally Hunter of the Oregon Highland Bentgrass Commission - - sent some fine samples of brochures - - distributed by your office - - the series titled 'Turfgrass Portraits' seem very helpful - - and another brochure titled 'Lawns' - - if some of these are available it would be a great help". Mr. Wieting was immediately sent sample materials, from which to perhaps choose a "text" for his class.

SPRINGFIELD COLLEGE PROGRAM

Apparently a suggested project in the Botany Class at Springfield College, Massachusetts, relates to turfgrasses and their management. We are not certain the name of the professor in charge, but from time to time the Institute receives requests from students in the class asking for literature and information (which, of course, the Lawn Institute is happy to send, since it ties in so nicely with our educational efforts at a key level).

In February Robert W. Field wrote, "I am a Freshman at Springfield College - - undertaking a Botany project concerning athletic turfs - - any information concerning athletic turfs would be greatly appreciated - - thank you for your help". And Robert Beaumont, possibly in the same class, wrote, "My teacher informed me that you had some valuable information on planting, grass, turf growth, etc. I would appreciate this helpful information."

OHIO SHORT COURSE

Members may be interested in some of the presentations given on the "Turf Management Specialist Program", during the 38th Annual Ohio State University Short Course for arborists, turf management specialists, landscape contractors, garden center operators and nurserymen, January 23-26. This was the same program upon which Dr. Schery of the Lawn Institute discussed "Selection of Quality Turfgrass Seed".

Dr. James B. Beard, Michigan State University, discussed "The Sod Industry - Scope, Production and Utilization". Beard pointed out that the sod industry is growing remarkably in Michigan, and is today the fourth most important crop in the state, worth \$27 million dollars annually. It appears likely that it could reach the number one spot, if economics continue to favor Michigan-grown sod for the New York market. Dr. Beard pointed out that there are actually more favorable growing days for bluegrass in Michigan than in many locations farther south where the season is longer (because Michigan summers are more advantageous to bluegrass than the hotter summer farther south).

Considerable work is being undertaken at Michigan State University relating to the handling and marketing of sod. Temperatures within rolls and within loads are being tallied, to determine keeping propensity. Under ordinary conditions sod keeps well for about two days, and under favorable conditions up to five days. Better farmers in Michigan, growing sod on muck soils are sometimes able to get three crops in two years, and even on mineral soil, no less than one crop in 18 months.

Some of the tests at Michigan State University indicate that sod grown on organic soil roots better than that grown on mineral soil, if applied to a dry soilbed. But Beard stressed that it is never advisable to have a dry soil, no matter source of sod. In general sod grown on organic soil is of equally good quality as that grown on mineral soils, except that the interface is quite different; when the sod is to be used for football fields, golf courses, and such like, it will not root and hold so satisfactorily as sod grown on a similar mineral soil.

Beard discussed briefly the mechanized means of growing sod, including even rolling machines (not yet well perfected). One unexpected indication, not yet fully proven, is that Merion sod mowed at an intermediate height showed greater strength than that mowed tall; one would have expected more rhizoming from the taller sod.

Dr. Merle Niehaus, Ohio State University, discussed bluegrass variety comparisons for 1966, as made at three locations in Ohio. Under circumstances of the testing, low ratings are chiefly due to incidence of leafspot disease, which through spring and the early summer thins the turf, permits more weeds, etc. Under these conditions Delta, Nudwarf and Park rated lowest among the varieties tested, while K-547 (Penn State), A-20 (Warren) and Merion rated the top three spots in that order. Not far behind were Windsor, Campus, Northrup King code designations, Prato, Newport, CB, Common, Cougar, and another NK code type. In other testing Kentucky-grown natural bluegrass proved quite superior to "common", especially imported common. In the Columbus area Cougar had by far the poorest rating, showing 85% loss of grass from melting-out disease. Were the pending imminence of stripe smut and other newer diseases to be considered, the ratings might change considerably. For example, Park is resistant to stripe smut, whereas Merion and Windsor are not. It was mentioned that word from Minnesota indicates that the genetic composition of Park is dependent upon only about four of the original dozen clones entering into this synthetic variety; testing at the University is said to have indicated these few clones quickly gained the upper hand in the seed fields.

Dr. R. R. Davis, Ohio State, covered "Weed Control in Turfgrass Areas". He emphasized that there are means nowadays to control all broadleaf weeds in the lawn, recommending the various phenoxy compounds and dicamba, and pointing out which weeds were resistant to which chemicals among these. Considerable discussion arose from the floor on annual and perennial grass control for which there is nothing spectacularly new recommended at this time. Strobe did advocate MCPP as much safer on bentgrass than silvex, but not as effective against the weeds.

Dr. R. W. Miller, Ohio State, reviewed "Management of Tall Fescue for Football Fields and Other Turfgrass Areas". In effect his story was how the Ohio State football field, originally planted to 9 lbs. of tall fescue mixed with $\frac{1}{4}$ lb. of Kentucky bluegrass/M, changed in a matter of a few years to solid Kentucky bluegrass with no tall fescue. An all-bluegrass turf is now felt superior to the original blend. In discussion it was suggested that fine fescue might be used in place of tall fescue in such seedings; where bentgrass prevailed some Highland might be mixed in, the turf mowed close for the bent. Analysis of the factors leading to the disappearance of the tall fescue indicates that this is a combination of high fertility favoring the bluegrass, with loss of tall fescue through winter as temperatures alternate between quite cold and slightly above freezing. Mowing height seems to have relatively little effect, although closer mowing slightly favored the bluegrass over the tall fescue.

NEW FLORIDA PROCEEDINGS

Vol. XIV 1966, of the proceedings of the Florida Turfgrass Association was issued in March, under the new format that contains advertising. Because of Florida's location and peculiar soil conditions, a special publication relating specifically to the state is much needed. The annual "Proceedings" covers a wide range of subject matter (1966 issue is about 170 pages), and serves this purpose well.

The issue opens with discussion of the distinctive Florida soils and appropriate amendments for them. A mix for putting greens recommended by the University calls for adding 20% vermiculite, 5% colloidal phosphate, 10% fired clay and 10% peat.

Fertilization is reviewed, first in terms of fundamental soil-fertilizer relationships, then in terms of products practically available. It is surmised that there may be a trend towards greater use of fertilizers in solution. Dr. Horn offers the comment, "We do have proof that high phosphorus levels in the soil are detrimental to the growth of roots of Tifgreen and Everglades bermudagrass".

The new Tifdwarf putting green grass is evaluated by several authors. Of especial interest to Institute members are the several items on overseeding bermudagrass greens for winter. Stanley Clarke, superintendent of La Gorce country club, Miami Beach, indicates that Tifdwarf "should be overseeded in cold weather due to purple color during this season".

Harvey Linderman, Lake Wales, decided upon bentgrass for his winterseeding because of their reputation in the North, from whence come his winter golfers. After comparison tests he settled upon Penncross as best, especially because it had excellent color throughout the season. Color and ease of care for Penncross was superior to that for traditional ryegrass. So satisfied is he with Penncross, that his club is going to try to keep Penncross year-around if possible.

Harvey Phillips, Clearwater, is sticking with ryegrass in a mixture, because he believes ryegrass gives a slower putting surface desired by his golfers, in spite of its heavier maintenance requirements. He states, "In addition to ryegrass at 10 lbs./ we use redtop at 1 lb., and Kentucky bluegrass at 2 lbs. - /provide/ the carpet type green we desire. One good feature of the Kentucky bluegrass is that it takes over at the end of the season when the ryegrass and redtop begin to fade out." T. N. Baumgardner, Sea Island, is satisfied with the blend initiated some years ago by the Milorganite people, consisting of *Poa trivialis*, Pennlawn fine fescue and Seaside bentgrass in combination. He follows up on the original seeding of these grasses with an "insurance" seeding of ryegrass later in the season. Unusually high rates are used at Sea Island, - per M, 6 lbs. of *Poa trivialis*, 10 lbs. of fine fescue, 2 lbs. of bentgrass and 30 lbs. of ryegrass.

All in all there is considerable variation in preference of winterseeding mixtures. But we are pleased to note that publicity and test seed furnished by the Lawn Institute in recent years has at least brought re-examination of traditional "ryegrass only" winterseeding. Dr. Burt, Ft. Lauderdale, in his summary of research in south Florida reports in the Proceedings, "The Lawn Institute mix was rated as second best in performance". The mix furnished was a combination of two fine fescues, two Kentucky bluegrasses and Highland bentgrass. Here, too, Penncross led the parade, - "Penncross bentgrass gave the best results. - excellent performance throughout the season at 1 lb./M/ - - this grass started early and continued to perform well throughout the season. It persisted

in the spring - - until the middle of May". Incidentally, Linderman has gone to seeding Pennncross with a pressure sprayer. He concludes, "We prefer the Pennncross for numerous reasons. It has excellent color, blends well with Tifton 328, and provides an excellent putting surface. The greens seem to improve as the season progresses and are at their best in the spring. In fact we had excellent coverage into June this past season."

Several papers on business operations, care of ornamentals, seeding southern lawns (bahia grass), nematode control, vegetative planting, and weed and disease measures round out the proceedings.

ARIZONA TURFGRASS RESEARCH, 1966

Report 240 from the University of Arizona tells of 1966 turfgrass research. A resume may be of interest.

Kneebone and Major report on winterseeding during the 1965-6 season. Winterseed used was *Poa trivialis*, Pennlawn red fescue, annual ryegrass, and the "Lawn Institute mix" (consisting of Highland bentgrass, fine fescue and Kentucky bluegrass). Strips were overseeded across 16 varieties of bermudagrass, and replicated four times. Seeding followed vertical mowing, and excellent stands were obtained from all wintergrass seedings (the fine fescue alone, and *Poa trivialis* stands are reported as slightly more dense). Especially with ryegrass and to some extent with the mixture, but not with fine fescue or *Poa trivialis*, the variety of bermudagrass seemed to influence the density of the wintergrass. Reasons for this are obscure, and could not be correlated with either disease or nutrient availability.

In a study on the influence of nematodes on the development of annual ryegrass wintergrass, it was determined that presence of nematodes (when inoculated to soils in the greenhouse at least) stimulates root development and they are not detrimental to growth or color of the grass.

A study by K. C. Hamilton suggests that preventing winter weeds in dormant bermudagrass may be more important than controlling them during the growing season. He suggests diquat or paraquat $\frac{1}{4}$ to $\frac{1}{2}\%$ with $\frac{1}{2}\%$ surfactant, sprayed to wet the weeds, as a useful control without any fear of injuring ornamentals. A number of potent pre-emergence herbicides were employed to give effective control of annual bluegrass, several of which (DCPA, bensulide and diuron) gave nearly 100% control of crabgrass, too, through summer. Most of the chemicals controlled other grass weeds as well, but those controlling broad-leaf weeds well caused severe injury to the bermudagrass (viz. simazin, monuron, diuron). No preventative was effective with all weeds.

Fungicides were tested in control of summer-blight on bermuda, the most destructive disease in the area. No fungicide gave complete control, but three or four of the products reduced disease to about $\frac{1}{3}$ or $\frac{1}{4}$ of the checks.

Dr. Kneebone also compared the root growth of a great number of selections of bermudagrass under three different mowing heights. Surprisingly, on the average the greatest weight of roots per plug occurred at the lowest mowing height ($\frac{5}{16}$ of an inch, with a greens mower). There was no significant difference between grass left uncut and that mowed $\frac{3}{4}$ inch.

Studies on fertilizer application to common bermudagrass showed both "slow release" sources (an organic, and a coated urea prill) and solubles to be spent within six weeks, although showing turf response for four weeks from an August application. The addition of treble superphosphate to ammonium sulfate was equivalent, suggesting usefulness of the more economical urea. Although there were slightly better ratings for the "slow release" fertilizers after two weeks, after four weeks all treatments were alike, and author Stroehlein concludes, "'slow release' materials did not show any lasting advantage over more common and economical materials in this study." Complete failure resulted from an attempt to restrict nitrification of ammonium sulfate with N-Serve.

MORE EMPHASIS ON TURF DISEASES

The December issue of the Golf Superintendent carried the second part of Dr. Charles Gould's evaluation of fungicides in the control of turfgrass diseases. The final installment will appear at a later date. With Helminthosporium, an important spring leaf blight of bluegrass, dyrene, dithane M-45 and most mercurials rated well in the national averaging. No fungicides were particularly effective in controlling Helminthosporium root rots, although the same leading chemicals were generally the most effective.

Some help in controlling fairy ring was noted from the mercurials, but the only practical measure still seems to be a combination of watering and fertilization. Dexon showed runaway superiority over everything else in the control of Pythium. Best brown patch (Rhizoctonia) control came with PCNB, mercurials, and dithane M-45. Dollar spot (Sclerotinia) was well controlled with a number of compounds, including various ones of cadmium, mercury, cycloheximide and daconil. Nitrogen fertilization is recommended as the best check against smuts, and inorganic mercuries gave best results against snowmold. Ophiobolus seemed best controlled by ammonium sulfate fertilization accompanied by chlordane applications.

In a separate article in the same issue, Dr. Bean of Maryland discussed "Fusarium Blight of Turfgrasses", citing some Institute work. He notes how this blight (caused by the fungus Fusarium roseum) has been very severe on Marion bluegrass in the East since 1963, at times wiping out the turf. Symptoms distinguishing it from leafspot are cited. In Bean's observations the disease will attack most familiar bluegrasses, but seldom pure stands of fine fescue, Bermuda, bentgrass or Zoysia. It is severe only in sunlight, and is worst during warm, dry parts of the year. Some success in controlling the disease with sprays of tersan-OM are indicated, but equally important may be adequate watering (and other management care).

TURFGRASS RESEARCH IN SOUTHERN CALIFORNIA

In addition to checking out the winterseeding trials in southern California, reported elsewhere, Dr. Schery had chance in February to spend a day with Dr. Victor Youngner of the University of California, Riverside; and Stan Spaulding, in charge of plantings at the Santa Ana substation. Here are some of the points of note.

Dichondra is receiving increasing attention at Riverside. Strains are being isolated just as variable as those of turfgrasses; following a "splitter" code of nomenclature, many can be termed separate species. Youngner favors D. micrantha, to replace D. repens for the most frequently used lawn Dichondras. Experimentation in environmental control

chambers is amplifying further the recognition that *Dichondra* appears remarkably different from one season to another, and under different modes of maintenance.

Youngner reports that a Rohm and Haas growth retardant chemical, Mendok, stalls bermuda growth without any bother to Kentucky bluegrass. There would seem possible usefulness for any occasion when it is wanted to give bluegrass competitive advantage in a mixed population of bermuda and bluegrass.

Youngner has been disappointed in the effectiveness of iron-containing fertilizers to control chlorosis on the alkaline soils of southern California. Chelates, in particular, have had no effect. He still recommends for turf two to three ounces of iron sulfate per thousand square feet as a localized spray.

Although bluegrasses survive reasonably well in desert locations (where nights are reasonably cool, and winters cold), they generally peter out within a few years in the populated coastal areas of southern California. Fine fescues are reported not to last more than one season there. Research is being undertaken in growth chambers to better pinpoint the temperature extremes that can be endured by these quality cool-season grasses. Sod growers of the region (mountain locations) mostly mix Newport and Merion.

Youngner has had planted a wide variety of bluegrasses, such as Newport, Merion, Fylking, Prato, Windsor, etc., alone and in combination, at several locations through southern California, notably Riverside, Santa Ana and Tehachapi. Of these the most difficult locality for cool-season grasses is probably Santa Ana, where the plantings were inspected in the company of superintendent Stan Spaulding. At the time of visit (February 6) bluegrasses (and to a lesser extent fine fescues) were the most resplendent grasses on the property - and one would wonder why anyone would bother with bermuda, Zoysias and *Dichondra* (most of them off-color at that time of year). But Spaulding affirmed that just the opposite appearance usually occurs during summer, and that two summers ago one would have thought all the bluegrass had died out; however, its recuperative powers are amazing, and the stands viewed generally revived without any reseeding. Considering the several plantings, some new and some established several years, Park Kentucky bluegrass was notable for its quick and ready establishment. Prato was rated best for density by Spaulding.

Observations at the Santa Ana station suggests that it is possible to take bermuda-grass out of bluegrass, through application of siduron (Tupersan).

Source collections of many *Dichondra* species are being assembled at the Santa Ana station. By and large Spaulding finds less disease on *Dichondra* when nitrogen fertilization is generous, and when the *Dichondra* is not mowed. Suggested rates of feeding are between one third and one pound N/M no less frequently than monthly.

Other selection work at the station involves screening of creeping bentgrasses tolerant to salinity. A number of segregates out of Penncross and Seaside have been made, which seem to have greater salinity tolerance than the general run of these varieties. Among "colonial" bentgrasses Holfior has looked very good, as has also Highland. Highland is being recommended for fairway usage on golf courses in this climatic belt. A suggested combination of grasses for new golf course plantings (fairways) is Highland bentgrass mixed with a low-growing bluegrass (Fylking is mentioned), and bermuda seed. In areas such as this the cool-season grasses may have common cause with bermudagrass, in developing markets!

A number of Zoysia selections have been made, although bermudagrasses are generally favored over Zoysia. A combination of tall fescue and bahiagrass is recommended for school grounds that must be let go in summer without irrigation; this combination is said to give a coarse turf, but one that is at least somewhat green year-around. The bahia rhizomes serve to bind the sod, and give body to the tall fescue. At time of visit bahia was decidedly off color, however, and not attractive.

Some of the new varieties being tested include a bluegrass from Holland, Christa; a new perennial ryegrass sponsored by Germain's, Boabonita; and several others. Perennial ryegrasses are looked upon with some favor, with Norlea an excellent performer. Paspalum vaginatum, of which limited seed supplies are available in the Southeast, has been looking very good. On the other hand, Tifdwarf, much recommended for golf greens in the Southeast has not performed well, turning off color and failing to resist smog very well. A number of bermuda selections hold up well in smog, of which the newly released Santa Ana is among the best.

TURF RESEARCH AT THE UNIVERSITY OF ARIZONA

Within the last few years changes in administration and personnel at the University of Arizona, have put turf research activities in new hands. On a trip to the Southwest during February, it was possible for Dr. Schery to renew acquaintanceships at the University, on behalf of the Lawn Institute.

On the whole southern Arizona is bermudagrass country, of course requiring irrigation. However stands seldom last a decade, usually giving way to crabgrass and weeds for a variety of reasons. One of the chief reasons in the opinion of Arizona experts is over-watering, which brings on disease (possibly intensified by thatch buildup). Part of the program in turfgrass research is to screen bermudagrass for selections that will stand up well and not appear too poorly during the winter dormant season. Santa Ana, a release well adapted to southern California has looked very well so far. Zoysias are not generally preferred, although they, too, look presentable when well grown. Of course they are slower to establish and respond to care than is bermuda, and are said to be considerably more prone to chlorosis on arid land soils.

Although weed, entomology and other specialists are active on the turf committee, research seems to center about Dr. Robert Kneebone. Kneebone is especially interested in working with the bermudagrass seed industry, so important to Arizona in the Yuma area. He discussed with Dr. Schery the possibility of developing strains of bermudagrass to be used for "summer seedings" in the North, just as the Lawn Institute is urging "winter seedings" of northern grasses in the South. There could be a mutually advantageous program along these lines for middle latitudes and border states, where bermuda (handled as an annual) may be preferable to volunteer crabgrass in summer, and bolsterings with northern grasses in order for autumn.

Problems with bermudagrass in Arizona are somewhat different from those of the Southeast (Florida). For one thing, nematodes do not seem to be the problem in Arizona that they are in the Southeast. On the other hand Eriophyid mites are quite a problem in Arizona, although susceptible to control by diazinon-fertilizer combinations. Many of the promising southeastern bermuda varieties, such as the new Tifdwarf, seem not quite so effective in the Arizona climate.

As a bermuda breeder, the main thing Kneebone is interested in at the moment is to develop a fine-textured strain of bermuda, that is hardy northward through the border

states, which can be propagated by seed and is a good seed yielder. So far progress has been discouraging, because the best selections seem inevitably to be sterile and poor seed yielders (hybrids?). Kneebone is beginning to believe that bermudagrasses are nearly 100% self-sterile. Thus he is thinking in terms of developing a variety from the cross of two parent clones, suggesting seed production for bermudagrass much on the order of Pennncross bentgrass in Oregon.

"Bull session" discussions over coffeebreak brought out how much more potent are herbicides on the low organic desert soils of Arizona than in the rest of the country. It is said that a half pound of bensulide - about 1/20th of the rate generally recommended - gives good pre-emergence control for months in Arizona. Similarly, dicamba is exceedingly potent and must be used with care for fear of injury to ornamental roots through the soil. The weed man shuddered at the thought of picloram being in the hands of homeowners in Arizona. On the other hand certain herbicides, such as Hyvar-X, fix at the surface of the soil and cause little trouble. Chief danger seems to be from those herbicides which are fairly soluble.

Research formally reported out of Arizona will be discussed elsewhere in this issue.

WEED CONTROL HANDBOOK

The "Autumn" issue of Plants and Gardens, Brooklyn Botanic Garden, appeared several months late. It is devoted to various aspects of weed control, with Barbara Emerson, Amchem, guest editor. An excellent basic discussion of the botany of weeds, by John Fogg, opens the volume. There follows a series of short items on herbicides and weed control in various types of plantings, and eventually specific mention of garden crops and individual weeds. Dr. Skogley handles "Weed Control in Lawns", in the conventional fashion. Dr. Burt of Florida does the same for warm-climate lawn weeds, and ends his presentation with a specific listing of the herbicides that are useful on the five major southern grasses. Duich of Pennsylvania zeros in on crabgrass, while Deal of Maryland lists the perennial grasses that become weeds in the lawn. For the latter, of course, there are no good selective chemical controls.

As would be expected from a publication with a diversity of authors, continuity and integration of the various presentations is difficult. And the rapidly changing technology in the field creates problems about what should and should not be mentioned (viz., picloram is not mentioned for control of Canada thistle, one supposes because it has not yet been publicly released; still, it is the most effective selective control available). It is difficult to believe all authors would have failed to mention zytron. Rather it appears that the editor must have deleted reference to this chemical throughout the issue because Dow has reportedly withdrawn the herbicide from further production; but one would suppose it should be mentioned, at least, among crabgrass preventers. There is not much directly relating to lawnseed, although several of the lawn discussions emphasize the need for quality grass well tended as the first step in fighting weeds. In a footnote the editor does explain the newer labeling scheme distinguishing "fine-textured" and "coarse kinds" groupings of lawngrasses.

Over two dozen familiar weeds of lawn and garden are pictured as green-colored drawings, separated in the text into two sections for no apparent reason; these should prove helpful to the amateur in making identifications. There is no credit apparent for the drawings, but they appear to be adapted from the Amchem weed charts of recent years.

ADVISOR FOR SOUTH DAKOTA

Dr. Dale E. Herman, Assistant Professor of the Horticulture and Forestry Department, South Dakota State University, asked if he could receive Lawn Institute publications. Dr. Herman was invited to become one of the Institute's advisors, and thus be a regular recipient of reprints. Dr. Herman accepted this invitation, and joins with other technical personnel in this form of liaison.

INQUIRIES CONTINUE

Typical of the inquiries received by the Marysville office is one forwarded by the American Horticultural Society, Washington, D.C., from a Massachusetts lawn enthusiast. The problem is *Poa annua* in his intensively managed croquet court turf. We offered some suggestions for chemical control, and reseeding with a seed blend containing bentgrass. Mainly we are flattered that the American Horticultural Society looks to the Lawn Institute for authoritative information concerning tricky lawn questions!

TURF ANNUAL PLANNED

A reminder from Park Maintenance magazine asked for reprints of our publications through the year as background for review by the editors of their "Annual Irrigation and Turf Research Section" to appear in the July issue. Since the Institute receives mention in the annual, we were glad to forward a battery of reprints to Erik Madisen.

SUBURBIA CONFERENCE

The Departments of Agriculture and Housing and Urban Development, have jointly called a meeting for June 15-16 on "Land and Water Management in Suburbia". One of the announced objectives is to "protect and enhance natural beauty and provide open green space". Here may be an opportunity to emphasize the value of turf seedings in construction of homes and in laying out of public properties. Presumably land developers, investors, planners, architects, engineers, scientists, and county and municipal leaders will participate in the conference. The Institute has offered information and reprints for the conference, if wanted.

MIDWEST TESTING

John Dillingham, Grace, Mt. Vernon, Illinois, telephoned to indicate interest of a local golf course in initiating some test plantings in the Mt. Vernon area. He asked that the Institute suggest several seed blends, and variables that might affect their maintenance. Several combinations of fine-textured grasses, primarily of bluegrass varieties with fine fescue and Highland bentgrass, are contemplated. In a year or so we hope it may be possible to report on this interesting investigation in a part of Illinois that can experience weather difficulties.

"GARDENING SHEET" FOR NEWSPAPERS

A telephone call from Isabelle Zucker, in charge of National Garden Bureau publicity, briefed Dr. Schery on the issuance of a "gardening supplement" for newspapers, organized by a Washington D.C. public relations firm. It was indicated that the ASTA proper, and the Lawn and Turfgrass Division of ASTA, were both financial backers of this assemblage

of gardening items relating to beautification. Nurserymen and florists groups will also participate, and the supplement will feature the customary hoopla about Mrs. Johnson on its cover page. Dr. Schery was asked to prepare two items concerning lawns. Fine-textured, quality grasses certainly have a contribution to make to beautification. It's good to have this invitation to appear along with other groups having an interest in outdoor beautification.

NEW DISEASE AND WEED GUIDE

A convenient "Guide for the Chemical Control of Turfgrass Disease and Turfgrass Weeds", prepared by staff members of VPI, Virginia, and issued as Circular 1034, under date of January, 1967, provides a handy summary in chart form, of treatment for a large series of disease and weed afflictions. Listings are alphabetical by disease or weed name, and a supplementary "appendix" identifies certain trade products and relates weight to volume. The general recommendations for spraying each 7 to 14 days through most of spring or summer (for disease) is a bit taxing for the average homeowner, however.

ROADSIDE SEEDING INSPECTED

Dr. Schery was able to pay a mid-winter visit to the experimental roadside seeding near Upper Sandusky, Ohio, where earlier in autumn the Division Landscape Architect had intended to apply a late autumn booster fertilization. The grass seemed in excellent condition in spite of recent cold weather, with the fine fescues particularly looking extremely well in the median, preferable to the tall fescue planting of the outside berms.

WYOMING PROGRESS

Assistant Dean and Director Dr. Lyod C. Ayres, our advisor in Wyoming, reports that for the first time a turfgrass course will be inaugurated at the University of Wyoming. He asks that we place the name of Dr. E. A. Andrews on our mailing list to receive reprints and information. "The Spring Semester will be the first time our course in Turf Management will be taught, - - by Dr. Edward A. Andrews, Associate Professor of Plant Pathology. Dr. Andrews brings a storehouse of turf disease information from the Midwest, ---. He has been on the University of Wyoming faculty since 1955. He received his Ph.D. at the University of Minnesota in 1953. I would appreciate your placing his name on your mailing list for all the material sent to turfgrass advisors. I am sure he will be contacting you for information - -."

BLUEGRASS SOURCES

A reprint received from Hanson and Juska of the USDA, discusses "The Characteristics of *Poa pratensis* Clones Collected from Favorable and Unfavorable Environments". Main thrust of the research was to compare natural bluegrass collections made in Alabama and Maryland with more northerly conventional sources. Southern sources of bluegrass proved more tolerant of leaf rust than did northern ones, but more susceptible to snowmold, leafspot and recovery from leafspot. However, where southern pastures were renovated (possibly inducing reseedling), the difference between southern and northern sources was not significant. Space plantings of progenies suggested that at least the undisturbed southern bluegrass sources were somewhat more apomictic than northern ones.

HIGHLAND GREENS QUICKLY

The several plantings of Highland bentgrass on the Lawn Institute grounds are notable for their quickness to green in spring, as well as ability to hold color late in autumn. Upon melting of the "last" snow the second week of March, Highland was definitely ahead of other bentgrasses, including side-by-side plantings of Exeter and Kingstown. Of course best appearance was where fertilization had been ample late into autumn.

MORE REPRINTS DISTRIBUTED

PATCO Products of New Jersey made good use of the reprint from Home Garden, "Early Spring Lawn Care", requesting additional supplies from Marysville for distribution.

JAMESTOWN FESCUE RELEASED

The February issue of Rhode Island Agriculture, in a story "Finding Where the Grass is Greener", announces release of "Jamestown" fine fescue, third release in a triumvirate that included Kingstown velvet bentgrass and Exeter colonial bentgrass. Charles Allen, foreman at the turf research grounds in Kingston, is pictured on the cover with a handful of seed that eventually became Exeter. The "news", however, is the naming and release of Jamestown red fescue, said to do well under close mowing. It was discovered colonizing golf greens at a country club let "grow to hay" during World War II. The story describes Jamestown as having "great density and uniformity, good color and relative freedom from disease. It is adapted to shade as well as to sunny locations, and will be recommended as a component in a basic Kentucky bluegrass-red fescue mixture for fine lawns and for sports and recreation turf." Seed increase is under way in Oregon, but commercial supplies will not be available for two years.

TURFGRASS FERTILIZATION

Institute advisor Eliot Roberts at Iowa State summarized some of his recent conclusions on fertilizing various turfgrasses in Weeds, Trees and Turf for March, under the title "Fertilizing Helps Turf Crowd Out Weeds.". The conclusions are those voiced at several turf conferences. High nitrogen gave Kentucky bluegrass the competitive advantage over red fescue, and turfgrass generally over crabgrass. Irrigation, as would be expected, favored bentgrasses more than other species. Crabgrass prevention was better under dry conditions than wet. Turfgrass (Merion bluegrass especially) was strikingly more competitive against dandelions (even without herbicidal treatment) under high fertility. While there is little new information here, it is nice to have the observations in print as an item of interest to dealers and home lawn hobbyists.

CEMETERY GROUP HEARS TALK

March 16-17, Dr. Schery accepted an invitation on behalf of the Lawn Institute, to address the Chicago-area cemetery association meeting in Chicago. The dinner meeting was sponsored by the George Davis turfgrass supply house, and Dr. Schery's travel expenses were underwritten by Borden Chemical Company.

About 45 minutes was devoted to a formal recitation, followed by about a half hour of discussion and question-answer activity. Two Institute reprints, "Gobs of Good Grass" and "How to Select the Right Turfgrass", were distributed and supply left for handing out by sales representative to men missing the meeting.

This audience of cemetery supervisors was knowledgeable and responsive. A sizable proportion of the society's membership seems to be of sextons in charge of the string of Catholic cemeteries in the Chicago area, and the buyer for the group was in attendance. Members were told of the quality characteristics of turfgrasses and what constituted good quality in seed blends, with special consideration of the fertilization program needed to achieve a permanently satisfying turf with fine-textured grasses.

INSTITUTE PRESENTATION IN OHIO

Representing the Lawn Institute, Dr. Schery discussed "Selection of Quality Turfgrass Seed" before the Ohio State University Short Course for arborists, turf management specialists, landscape contractors, garden center operators and nurserymen, January 23. Various factors that determine seed quality were pointed out, of which the genetic factors relate mainly to local adaption and personal preference. Physiological factors are reflected in germination, one of the standards for marketing seed; subtleties, such as the influence of a larger seed, weather at harvest time, or even treatment of the stand prior to seed harvest, were mentioned. The main factors over which the seed grower and handler have control relate to mechanical quality, - purity, and conversely the "inert", "crop" and "weeds". Each of these was discussed, and the progress made in providing the present-day consumer with a high-quality seed consistent with practical economics pointed out. Colored slides were shown of producing areas for Kentucky bluegrasses, fine fescues, Highland and Penncross bentgrasses. The reprint "Lawn Seed and What's a Weed" from the American Horticulture magazine was distributed.

"BASIC LAWN-CARE REMINDERS"

This is the title of an insert, in the January issue of Buildings magazine. It is staff-assembled, but we wonder if Institute literature may not have been influential. As the title suggests, basic information is what is given, - viz. "Cool-season grasses, such as bluegrass and fescues, should be mowed to a height of about 2 inches."

GARDEN CLUB PRESENTATION

The Men's Garden Club at Marion, Ohio, invited Dr. Schery to speak about lawns March 28. About 50 members and their guests were present, representing an appreciative and stimulating audience (with a lengthy discussion and question period at the end of the presentation). Dr. Schery reviewed how lawnseed is produced, and the factors that spell quality in lawnseed coming to market. The reprints "Good Lawns and Rose Splendor" and "Showcase for Roses" were distributed. We are grateful to Dr. Imbody for the opportunity to appear before this influential group.

MANSFIELD CONTINUES USE OF REPRINTS

The Lloyd Mansfield Co., Buffalo, New York, ordered a total of nearly 5,000 Institute reprints, for mailing enclosures during spring. Additional items are being contemplated for later in the year. We are grateful to Whitney Seed Company for this recommendation.

ROSE SOCIETY PRESENTATION

The evening of March 3, Dr. Schery offered a presentation to the Central Ohio Rose Society, meeting at Batelle Institute Memorial Auditorium, Columbus, Ohio, on "A Lawn to Compliment the Roses". Choosing of quality lawnseed was reviewed in detail, and reprints from the

Canadian Rose Annual "Quality Lawns for Fine Roses" distributed. The Central Ohio Rose Society has both men and women as members, is perhaps the largest and most active club in the region. Members were very appreciative of the Lawn Institute's sponsoring this program at the "birthday meeting", well attended by members and guests.

MISSOURI LAWN CONFERENCE

On behalf of the Lawn Institute, Dr. Schery accepted an invitation for a featured spot on the Fourth Annual Lawn and Turf Conference program, given by the University of Missouri Extension Division in St. Louis, February 23. The program was organized by Nelson Russell, Extension Agent, and included in addition to the Lawn Institute, Bill Small of Mallinckrodt speaking on grass diseases, Claude Petrov speaking on shade trees, with other extension personnel aiding in panel and other discussions. An unusually large attendance (more than anticipated, crowding the reserved hall) bucked sometimes snowy weather. Most of the attendees seemed to be involved in grounds maintenance activities in the St. Louis area (other than golf courses, which sponsor other meetings), - principally industrial grounds, cemeteries, schools and lawn maintenance services.

Dr. Schery reviewed for the group factors that spell quality in lawnseed, and showed slides of seed production in various parts of the country. As part of the panel discussion specific examples of seed mixtures and varietal performance were discussed. It was emphasized that climatically St. Louis is in a difficult area, but that by and large cool-season grasses such as Kentucky bluegrasses, fine fescues and bentgrasses (where they can be cared for) seem to have more to offer than do southern species. Reprints distributed included "Quick Spring Greenup for your Lawn" from Flower and Garden, "Lawns, Their Making and Keeping", from the Brooklyn Botanical Garden Handbook, and "Good Lawns and Rose Splendor", from The American Rose Annual. Agent Russell also recommended "The Lawn Book", "The Householder's Guide to Outdoor Beauty", and the Missouri Botanical Garden Bulletin "Lawn Establishment and Care" authored by Dr. Schery a few years ago specifically for the St. Louis area.

Attendees seemed principally interested in turfgrass, and in trees. There was relatively little questioning about diseases, or pruning and care of ornamentals other than trees. A poll of the audience at the close of the program indicated enthusiasm and high rating for this particular program, which is being considered for extension into a two day session in future years. To judge by audience reaction, there seemed to be no disagreement with the use of quality seed, except for low-budget athletic fields which frequently must utilize tall fescue plantings for greater economy of maintenance. Schery emphasized that where possible he felt it best to leave tall fescue entirely out of athletic field seed mixtures, utilizing only "fine-textured" species.

NOVEL TURF IRRIGATION

The April-May issue of Crops and Soils reports on Delaware research towards developing subirrigation of turf (and other crops) through use of polyethylene pipe. "Turf consisting of Kentucky bluegrass and red fescue responded well to subirrigation on a silt loam soil. In spite of a prolonged drought and record high temperature, both species grew well throughout the summer season with little evidence of stand depletion. In non-irrigated turf over 50% of the stand was lost."

INSTITUTE MATERIALS TO GOLF COURSE PUBLICATION

Tom Burrows, Editor of the Midwest Association of Golf Course Superintendent's "Bullsheet" plans to use Institute press kit items in that monthly publication. In addition he has asked that Dr. Schery prepare a story on the best grasses for certain locations on the golf course. Tom adds, "Will you please place me on your mailing list for any further articles by you which I may use - -."

TOURIST COURT STORY USED

Quebec Seed Ltd. requested a supply of the story which appeared in the Tourist Court Journal, for spring distribution out of Montreal. It is a pleasure to have this cooperation from Canada.

MEMBER USES BETTER HOMES REPRINT

A request from Russell Anderson, Consumer Products Dept. of Northrup, King indicates that "How to Buy Lawn Seed" from the April Better Homes & Gardens is being made use of by that member firm.

RADIO SCRIPTS SENT TO OREGON

During the Oregon Seed League Meetings, Dick Kuehner discussed with Dr. Schery the possibility of distributing radio scripts through the good offices of the Fine Fescue Commission. Accordingly Dr. Schery sent Mr. Kuehner eight three-minute texts for possible use in this way. To judge by replies received in response to Institute press kits sent to radio and TV stations throughout the country, this medium is hungry for authoritative lawn and garden information. Replies have been nearly 100% enthusiastic about receiving additional kits in the future, and expressing general satisfaction with the same type of material that is furnished newspapers.

REPRINTS TO WASHINGTON

Upon request from the Western Farmers Association of Spokane, multiple copies of "The Lawn Seed Industry Comes of Age" from Crops and Soils were sent for distribution through the Association. We appreciate this interest from these important western sponsors.

NEW OPPORTUNITY FOR INFLUENCE

Upon recommendation of the Smith Douglass Division of Borden Chemical Company, the National Farm & Home Publications asked Dr. Schery to become a featured consultant on lawns, and their "answer man" for inquiries developed through the new Better Turf & Garden publication. From time to time Dr. Schery will supply lawn articles for the magazine. The magazine is beautifully done, employing extensive use of color. It reaches a sizable gardening public through fertilizer dealers.

SECOND MEMBERSHIP MAILING

Gordon Newton has been very busy this year as Membership Committee Chairman. His second mailing included a persuasive covering letter plus the reprint "Improving an Old Lawn" (from Flower and Garden), and a resume of the Institute's Seal of Approval. We very much appreciate Mr. Newton's diligence.

REPRINTS TO ILLINOIS

In response to a request from John Dillingham, Grace Company in Mt. Vernon, Illinois, a supply of "The Lawn Seed Industry Comes of Age" reprints was made available for distribution during spring.

PORTRAIT SERIES STILL REQUESTED

The series of turfgrass portraits done for Weeds, Trees and Turf magazine about two years ago continues to be requested. The Everett Seed Company of Atlanta asked for several copies, and a recent request has come from the Conservation Department in Albany, New York. "The Many Varieties of Kentucky Bluegrass" from Horticulture magazine was also sent to Atlanta.

PRESS KIT INFLUENCE

The influence and acceptance the Institute press kits receive is gratifying. Elsewhere indication has been given of a press kit leading to comprehensive usage and request for custom stories by a magazine. Equally impressive is the fact that one way or another the media services are alert to press kit appearance, and pass along its information to client groups. Mrs. Zucker, in charge of publicity for the National Garden Bureau, indicates that she regularly receives Institute information in this way, and is able to adapt an occasional lawn item to her widely distributed "clip sheet".

SMITH-DOUGLASS USES REPRINTS

Upon request from the Borden Company, 500 copies of the reprint "Lawns" was furnished at cost, for distribution through the corporation's trade and publicity channels during spring. This is an excellent opportunity to achieve meaningful distribution without cost to the Institute. We appreciate very much the cooperativeness of the Smith-Douglass Division, which contributes also to the maintenance budget for the Lawn Institute grounds.

CONTINUING INFLUENCE OF REPRINTS

The continuing influence of stories placed in important publications was pointed up when Keister Evans, Executive Secretary of the American Rose Society, informed the Marysville office that Dr. Schery's story "Good Lawns and Rose Splendor" appearing in the 1964 American Rose Annual has been reprinted by the Society on several occasions to service requests for lawn information from members of the society. Mr. Evans invited Dr. Schery to provide a new review for the 1967-68 Rose Annual, to be issued about in February, 1968. This will provide valuable and enduring "good lawn" publicity.

MORE REPRINTS USED

We are delighted that Northrup, King could make use of an additional 100 copies each, of "Remarkable Kentucky Bluegrass" (Weeds, Trees and Turf) and "The Lawn Seed Industry Comes of Age" (Crops and Soils), for distribution through their good offices.

ADDED REPRINTS OFFERED THROUGH "GREEN THUMB"

George Abraham, Green Thumb columnist, offered to his readers distribution of a second Institute spring reprint, from Horticulture. Writes George: "--I hate to be greedy, Bob. ---we get one thousand letters a week when we offer the bulletins (we have 103 papers, Bob). ---but I can use both reprints, ---its a joy working with you---you certainly have

been very cooperative and I appreciate it---the good advice----you do it so generously. ---my mission is to give the readers all the information I can, and while it entails extra work, I think they appreciate it---."

AGRONOMISTS SCHEDULE TURF HANDBOOK

Various experts in the field of turfgrass research have been asked to author chapters in their specialty, for a handbook to be produced and sold through the Agronomy Society, - hopefully for profit to the Society. If well done, this might be the nearest thing to a turfgrass "textbook" available.

"SPRING GARDEN PLANTING WEEK"

A letter from William L. Meachem, March 3, indicates that the "National Spring Garden Planting Weed Committee" is again active this spring, hoping for sponsorship through Congress of a national proclamation for a Spring Garden Planting Week. Much of the committee effort has been sparked by the Dutch tulip bulb interests. The Lawn Institute has lent its name, in the interest of "beautification", and if individual members wish to support the idea they may contact (and commend for past efforts) Senator Warren G. Magnuson, Old Senate Office Building, Suite 127; and Representative Floyd V. Hicks, Longworth House Office Building, Room 1029, Washington, D.C.

LAWN FILM DEMAND

A number of requests have come in for spring showing of a lawn film. It is unfortunate that funds are not available to revise, update, and replace the old Institute movie "Bluegrass Beauty", which had been such a success in earlier years.

Typical of the requests in this from the Missouri University Extension Agent, W. A. Bogart, in St. Joseph, Missouri: "University Extension Center here is planning an educational exhibit in cooperation with one of the local shopping centers - - We plan to emphasize establishment and care of the lawn - - we would appreciate using one or two different films on the subject of lawn care. Thank you for any assistance - -."

SEED QUALITY INCREASED BY FERTILIZER

Research conducted in California, reported in November-December Crop Science, indicated that in addition to the obvious increase in vigor due to seed weight, there were small advantages to seedling growth rates from nitrogen and phosphorus applications made to the parent plant. The test grass was Oryzopsis miliacea.

OIL INCREASES HERBICIDE EFFECTIVENESS

A report by Dr. G. C. Horn in the Florida Turfgrass Association Bulletin, reviews the effectiveness and damage to various southern grasses comparing herbicide along with herbicide plus oil. In many instances the addition of about two gallon per acre of oil to the herbicide spray made this spray more effective. With some grasses and some sprays damage to the turfgrass was greater when oil was added, in other cases not. The addition of oil frequently made it possible to get effective weed control with only half the usual rate of herbicide. Seven tables are provided, each listing eighteen herbicidal treatments, which score performance of the herbicide and of damage to the particular species of turfgrass.

FINE USE OF REPRINTS

The Michael-Leonard Company made excellent use of several Institute reprints, in an educational campaign directed to outlets. Four hundred copies each of "Lawns" (from Horticulture magazine), and "Answer Questions; Advise, Not Price, Improves Sales" (from Flower and Garden Merchandiser) were utilized, and such available stocks as we were able to supply of "23 Questions Often Put to Dealers" (from Modern Garden Center). It is most gratifying to reach key outlets through cooperative efforts with members.

THANKS FROM JAPAN

In reply to inquiry, Sapporo Konoyen of Japan was advised concerning bluegrass varieties in the United States. The Institute received thanks for the favor, viz. "We wish to thank you for your letter of November 29th and the enclosed leaflets from which we learned many things." - Jiro Nishikawa, Seeds Manager.

MORE ON MERCHANDISING

Over a year ago Dr. William Logan, Ohio State University, was supplied such literature and information as the Lawn Institute had, for inclusion in his book dealing with the merchandising of seed supplies. Apparently further books are in the offing, for high schools and junior colleges. Dr. Logan asks for additional Institute literature, and such information as we can supply on the merchandising of lawn seed. He writes, "The material which you sent to me in 1965 proved to be of great value to me in the preparation of Facts About Merchandise, - - I would appreciate receiving a copy of any materials your Institute has available - - your views on what should be included in an instructional program would be very valuable to the study."

ENERGY VALUE OF FINE FESCUE

Research conducted by L. A. Hunt, in Wales, reported in Crop Science (Dec.) compared the energy content of several grasses, among which was red fescue. Energy rather than nutritive value of the several grasses was the point of interest. Young foliage had a higher value than older, but the difference was not great. On the average a gram of foliage from any of the grasses tested would equal about 4,300 calories of energy.

ABOUT BLUEGRASS

University of Illinois researchers tested over a hundred and fifty grass and legume species for roadside use. Tall fescue, already much used, proved most adaptable, and both alfalfa and Korean lespedeza were helpful legumes. Kentucky bluegrass was criticized for its slowness to establish in comparison to these species, but "despite its lack of seedling vigor, bluegrass is considered the most desirable grass species for roadside seedings in the northern third of Illinois."

PENNCROSS BENT VIGOROUS

Dr. John Madison, University of California at Davis, reporting upon seeding practices, noted that Penncross bentgrass, because of its genetic vigor, produced a population 30% greater than Seaside bent.

MEMBER REPORTS

We were pleased to note a report credited to Johnathan Green & Sons, New Jersey, in the Massachusetts Turf Bulletin, December 1966. The item was entitled "Black Sheep of the Bluegrass Family". It referred to the presence of *Poa annua* in Kentucky bluegrass, and noted that there was a savings of \$3,240.00 on the wholesale carlot for a packager willing to utilize bluegrass that was not *Poa annua*-free. The tremendous point-of-sale advantage was stressed, but it was also noted that new laws in several states regulating *Poa annua* content will make it tougher in the future, necessitating a better grade of packaged lawn seed for the "difficult" states.

"WHAT THEY ARE SAYING" ABOUT THE LAWN INSTITUTE

"I greatly appreciate your interest in the...Conference on Soil, Water and Suburbia. Your letter with its enclosures is being sent on to the Soil Conservation Service...I'm sure you'll be hearing from Mr. Berg as conference arrangements develop further."
- Gordon Webb, Deputy Director of Information, USDA.

"Thanks for the copy of your articles to David Nopper. On behalf of the Lawn & Turfgrass Division of A.S.T.A., I want to thank you for your services." -Gager T. Vaughan

"Many thanks for your cooperation in making this photo available, ...for use on the cover of a leaflet distributed at the recent International Flower Show in New York." -Dr. Henry W. Indyk, Rutgers University

"I am preparing a feature article on building a new lawn for a summer issue of Family Handyman magazine. Any photos you can supply of various operations in lawn building... soil preparation, seeding, fertilizing, mulching, etc....would be most helpful. I would also be grateful for any pamphlets or other literature you may have available." -Thomas Powell, The Horticultural Society of New York, Inc.

"On behalf of the Marion Men's Garden Club I wish to express our appreciation for your excellent program last Tuesday. Your vast knowledge of the subject particularly when you delved into the more scientific aspects of it made a most interesting presentation. An unusually large number of the members approached me afterwards and remarked how much they enjoyed it. Thank you again for an enjoyable evening." -Robert W. Imbody, D.D.S.

"We have received your fine article on lawn maintenance. We appreciate the photographs you sent with the story. Thank you for sending this to us so promptly." -James Cable, Editor, Building magazine

"I want to thank you for your courtesy in responding to my questions about techniques of bluegrass turf management. Your comments and the "Portrait" reprints were most helpful." -Paul M. Pearson, Onondaga, Gaithersburg, Maryland

"This is to acknowledge and thank you for your letter...the data which you and Mrs. McComas have given me are just what is needed for my current reportings." -A. Henry Larzelere, Merck & Co.

"On January 17, I read your letter to the editor, entitled 'The Indians Burned'. I think this was a very good letter. I am sure that letters of this type do a lot to reach the non-farm reader." -Rex Warren, Oregon Seed Growers League.

"The comments you made in your letter to the Albany Democrat-Herald were of great interest to me and I appreciate your taking time to say what you did. ...the smoke from the burning irritates our eyes and causes other allergic reactions, so we are as interested as anyone in trying to find solutions to the problems of indiscriminate burning. I feel that what you have to say should be read by the people of Eugene." -Mrs. Ralph H. Hinds, Oregon

"...we would like very much to have an article for the 1968 Rose Annual covering the subject of lawns and roses." -O. Keister Evans, The American Rose Society

"Thank you for your appearance and presentation at the recent Ohio Short Course...the information that you provided was exactly what the people...were looking for." -Dr. Robert W. Miller, Ohio State University

"...my sincere appreciation for sending me the copies of your reprints. These were distributed to our class in Turfgrass Management, and students made numerous favorable comments because your articles contained much valuable information. These reprints were a very worthwhile addition to our teaching material." -Dr. Fred B. Ledeboer, University of Rhode Island

"...Bob, that is a fine reprint and I wonder if I can offer it to our readers? I'd like a thousand copies, if you have them around. Sure do appreciate your excellent cooperation! I'm lucky to be able to come to you for help on lawns." -George Abraham, Courier Express, Buffalo, New York

"...We don't have a formal clipping service, but we did pick up a few articles...one of which was on the front page of the Capital Press in Salem." -James E. Williams, Oregon State University

"I am trying to assemble some material on the best care of sod at retail stores, nurseries, etc...It has occurred to me that perhaps you have a release or other helpful information dealing with the matter." -W. H. Mitchell, University of Delaware

"I found your article 'Where You Can't Have a Lawn' in the January issue of Horticulture magazine most interesting...your idea of scattering grass seed from time to time seems worthy of a try...any advice you might have would be very sincerely appreciated." -Roger Clapp, Strathmore Paper Company

"Thanks for remembering us...We, of the Missouri Valley Turfgrass Association, sincerely appreciate the assistance you, and the Lawn Institute, have given us." -Wm. M. Latta, President

"Thank you so much for your kind offer and assistance in making the seeds available to our research program." -Fred B. Ledeboer, University of Rhode Island

"I read with interest your article in the March issue of Resort Management....This was very helpful..." -Ralph C. Hughes, Deere & Company

"Thank you for coming to St. Louis and helping with our conference. The attendance reflects the interest...and the comments were very complimentary...Hope we can get you to come again in the future." -Nelson L. Russell, University of Missouri

"Thank you for sending us the reprints...your article...in Better Homes and Gardens is of importance in the Institute's continual effort to educate the consumer and encourage the sales of quality seeds." -Lilly Company, Portland