

BETTER LAWN

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Harvests

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ANNUAL MEETING SUGGESTED MAY 25

President Mangelsdorf contemplates calling the annual meeting of the Lawn Institute, for Tuesday, May 25, in Kansas City, Missouri. This will enable Board members returning from a survey trip to Europe to be present, and give fresh impressions of the lawn seed situation in Europe. We are grateful to Mr. Walter McElhaney (Highland Bentgrass Commission) and Mr. James Carnes (Northwest Bluegrass Association) for adjusting their schedules so as to be in Kansas City on Tuesday, May 25.

With the Lawn Institute membership now widely scattered, the annual meeting will focus principally upon deliberations of the Board, since it is unreasonable to expect members to travel great distances to Kansas City. But President Mangelsdorf is anxious that any member wishing to attend or contribute views know he is most welcome, and is cordially invited to meet with the Board for the annual reports and other discussion. It is anticipated the meeting will get under way about 9 A. M., at the Kansas City Club, Kansas City, Missouri, Tuesday, May 25.

NORTHWEST BLUEGRASS ASSOCIATION PROGRESS

President Mangelsdorf reports very encouraging progress in the shaping up of the Northwest Bluegrass Association. He has been in touch by telephone with a number of Oregon and Washington interests, and it appears that enthusiasm runs high. J. L. Carnes, chairman of the organizational committee, reports successful organizational meetings in several localities, and it is presumed that as this is written the complete Board of Directors will have been elected (although their names have not filtered back to us at press time).

WINTERGRASS SURVEY COMPLETED

With special travel assistance from the Oregon Fine Fescue Commission, Dr. Schery was able to note the current status and trends in winterseeding in the Southeast. An 8-page report was sent to officers and Commissions in early March, on the survey made in late February and early March primarily through Georgia and Florida.

This was not a particularly good year for winterseeding, because a late, warm autumn both caused deterioration of the plantings that were made, and failed to provide incentive for winterseeding (permanent grass remained green). Even so, the great majority of golf courses practiced winterseeding, and are increasingly turning to fine-textured grasses such as fine fescues, Kentucky bluegrass, *Poa trivialis* and the bentgrasses. Highland bentgrass has been beneficiary of considerable sympathetic usage, especially in that it was the only low-cost bentgrass available as seed.

The fine fescues continue to prove themselves for putting green usage, and are especially prized for the dark green color (in contrast to the light yellow that *Poa trivialis* yields). A combination of two fine fescues, two Kentucky bluegrasses and Highland bentgrass has been adopted at the University of Florida as the most satisfactory of fine-textured combinations tried. Blends such as this are widely advocated by the experts and leaders in turfgrass activities in the Southeast.

To the disadvantage of greater usage of fine-textured grasses, is the unreasonably low price of ryegrass (advertised retail as low as $7\frac{1}{2}\phi$ per lb.), leading to consumer demand. Also, there is increasing trend towards sodding with improved varieties, not so amenable to winterseeding (by the homeowner) as was the old-fashioned common bermuda. If a significant homeowner demand for the fine-textured species is to develop in the Southeast, intensified local promotion will be needed. This has proved successful in several places where tried.

SCHERY SPEAKS ON QUALITY LAWN SEED

The Lawn Institute was represented on the Rutgers University Turfgrass Course by Dr. Schery, speaking on "It Pays To Buy Quality Seed." The course was excellently organized, and well attended - nearly 300 being present at midweek. A resume of the Lawn Institute presentation had been prepared beforehand by the university, and was in the hands of attendees when Dr. Schery spoke. Additionally, a generous supply of the reprint "How To Get A Good Buy On Grass Seed," from Park Maintenance, was distributed by Dr. Schery to those interested in having a slightly different resume of the subject.

Schery first reviewed the evolution of the lawn seed business from a farm-oriented industry to the present specialized and sophisticated one it is. He pointed out the advantages of seed, what it is supposed to and what it does. The purchaser is protected on many scores - state laws governing to some extent weed content, purity, germination, and so on. But there are still hidden quality factors, such as what constitutes the "crop" portion of marketed lawn seed. Schery suggested that purchasers specify in buying from reliable sources that their fine-textured grasses be free of such "coarse kinds" as tall fescue and other "weed" species. It seems likely that the fairly frequent occurrence of *Poa annua* in Kentucky bluegrass is more due to imported than domestic seed, to judge by the Seed Technology records (which provided the data for Schery's charts).

The charts were derived from tally of actual Seed Technology test records covering several hundred lots. Among the Kentucky bluegrasses, fine fescues, and bentgrasses, nearly half the lots were weed and crop free. Among the remaining, "weed" percentage (including crop) was usually light, but often of species that could prove troublesome. Schery emphasized that weed (and crop) - free seed is available, that purchasers specifying their requirements and not fighting reasonable price can get excellent quality in all respects. Of course bargain hunters are likely to end up with lots downgraded for crop or weed content, such as when *Poa annua*, *Poa trivialis*, tall fescue, or other troublesome contaminants are contained. The Seed Technology records are cause both for pride and concern; lawn seed is good, better than ever, - but its quality cannot be taken for granted without specifying "free of" certain crop types. Most troublesome are "coarse kind" inclusions, often used in cheaper seed mixtures or as nursegrasses. Redtop seems particularly weedy in the trade - yarrow was found in every lot, and timothy in almost every one.

Schery concluded with slides showing the production fields in the Midwest and far West, indicating how modern farming methods by concerned growers yield a seed product of high quality.

ROBUST WISCONSIN SYMPOSIUM

Under the leadership of S. C. Foll, the Wisconsin and Upper-Michigan Florists Association organized this year a dynamic "Garden Center Symposium," running the three days February 23-25. The meeting was held in Fond du Lac, and included numerous outside specialists reviewing their fields of interest. Dr. Schery, representing the Lawn Institute, spoke to the owners group on opening day, and to the sales group the following morning ("The Salesman's Answer To Lawn Questions"). He also served as panelist on a "Question Box" evening session. This was an excellent chance to convey thoughts on quality seed usage to those having a dollar and cents concern in robust sales.

The printed teaser sent to association members proclaimed" "HERE IS A PREVIEW OF THE COUNTRY'S TOP PROGRAM: A solid day of owners and managers clinics for the garden center operator who wants to get ahead. . . . FIFTEEN experts who are willing to share their secrets of success with owners and managers. . . . TWO DAYS FOR YOUR SALES STAFF - fifteen separate topics that cover the entire Garden Center field. A TRADEFAIR that gives an opportunity to both the manager and the sales help to discuss the products they sell - -."

TURF RESEARCH ANNUAL

Request has been received from Park Maintenance, for all Lawn Institute papers, summaries and reports for the year, to be included in the usual "Annual Turf Research Section" of Park Maintenance Magazine, July issue. We are pleased to see that the issuance of this turfgrass summary is continuing as in the past.

TURFGRASS PORTRAITS POPULAR

There have been numerous requests for reprints in the "Portrait" series of articles done for Weeds, Trees and Turf Magazine. Patten Seed & Turfgrass Co., Lakeland, Georgia, ordered 2 M reprints of Portrait VIII on centipede grass, and the Bowie Machine Works in Texas wanted several hundred including all nine grasses in the Portrait series.

There's been a lot of favorable comment from the South, and we hope issuance of this series may be instrumental in better publicizing winterseeding on southern turfs.

INSTITUTE LETTER IN WALLA WALLA UNION-BULLETIN

We were surprised to receive from Claude M. Gray the other day, a clip sheet of his regular column "In the Garden," appearing in the Walla Walla Union-Bulletin paper. Most of the two columns was taken up with verbatim quote of a letter written by Dr. Schery to Mr. Gray, in response to his inquiry about what might have caused lawn blemishing in the unusual weather of 1964-65. Naturally, there was opportunity to mention Kentucky bluegrass as a vigorous, recuperative species.

A FRIEND IN DIXIE

"I have long been an admirer of your work and interested in the many articles you have written on turfgrasses. I would like very much for you to write an article for our newsletter (on winterseeding) - - Should you ever be in this area again, please stop by, and I am looking forward to hearing from you with regard to the article for the newsletter." - E. Ray Jensen, Southern Turf Nurseries

SCHERY SPEAKS TO 1965 AREA HORTICULTURAL TRADE MEETINGS

Opportunity to reach an audience in direct contact with consumer sales was presented to the Lawn Institute, when Dr. Schery was invited to review "How To Sell Turf Products With Confidence" and "Seeds, Fertilizers & Herbicides For Turf" to a Cleveland audience consisting largely of garden store operators. Dr. Schery distributed three Institute reprints to the audience ("23 Questions Most Often Put To Dealers," "Lawngrasses: What Kind For Your Customer?", "Answer Questions; Advice, Not Price Improves Sales"), and a condensation of his presentation was destined for the American Nurseryman Magazine. Along with the discussion on the value of quality seed, colored slides were used to depict producing areas in the Midwest and in Oregon.

Schery indicated that confident selling requires both an appreciation of the importance of the endeavor, and knowledge about the products. The only way for the garden center to compete with the mass merchandiser is to offer the "extra" of personal guidance on correct choice and use of product. Taking advantage of the extremely personal interest homeowners have in their surroundings, opportunity would seem almost limitless for extending one's influence with a grateful customer.

For this reason the confident garden center becomes a source of professional advice, no less esteemed by the homeowner than that supplied by physician, lawyer or accountant. This does require some acquaintanceship with fundamentals of garden and lawn care. These were reviewed to the extent possible, and the audience referred to "The Householder's Guide - -" for further popularized information. Specific discussions of lawn planting permitted review of bluegrass-fescue and Colonial bnetgrass, both suitable to the Cleveland climate.

INSTITUTE HELPS PREPARE DATA GUIDE "SPEED CHART"

It was pleasant to have Data-Guide Inc., New York, ask Dr. Schery for collaboration in preparation of a "speed sheet" covering lawns and lawn maintenance. This is a very condensed plastic chart, designed to give an authoritative bird's-eye view of a specific field or subject. Such "speed charts" are utilized as study guides by students, or as a quick reference "notebook" by those interested and active in the field. A reliable Data Guide on lawns should be instrumental in reaching a wide array of students and apprentices, who may be significant purchasers of lawn products in the future. The Data Guide requires approximately 20 type-written pages of text.

SCHERY ADDRESSES SALES STAFF

At the invitation of Horton Nursery Sales, Inc., Dr. Schery spent the day with company personnel. Included were "lectures" and workshop presentations on the fundamentals of lawn seed and lawn products. John Horton's idea behind this move is that a more knowledgeable sales organization is also a better one, and essential these days in the battle against the discounter.

BLUEGRASS SIDELIGHT

We have the following interesting request from the H. D. Hudson Manufacturing Company (power sprayers): "Dear Dr. Schery: An unusual request has come my way and I'm wondering if you might have the answer.

How many square inches of leaf surface are there in a square foot of a good bluegrass lawn when the grass is about two inches high?" - R. O. Geuther, Manager of Advertising.

The estimated calculation supplied Mr. Geuther came out to about 3-1 ratio - i.e. 3 units of green leaf for each 1 unit of land surface.

WORST LAWN PEST

Discussion and corridor conversations at recent gatherings of garden center groups indicate that more than ever tall fescue, not crabgrass, is No. 1 lawn pest in Ohio and other parts of the Midwest. Apparently sales personnel are plagued with complaints, and it is time-consuming (as well as unremunerative) to have to give lengthy explanations without even a product to sell for selective control of this widely volunteering bunchgrass. Although supposedly of doubtful hardiness northward, tall fescue nonetheless was on the garden center black list in Wisconsin, the same as in Ohio.

How this grass gets started so widely is still cause for wonder. It is certainly widely dispersed on highway berms, a component of most roadside seeding these days. And a few uncritical seed mixtures contain it, although generally recommended only for rough "play" turf. But even so, tall fescue is found cropping up in lawns to which it was never seeded.

Recent investigations by the Lawn Institute indicate that tall fescue is not a frequent "crop" inclusion in fine fescue and other quality seed. Yet good seed is accused of bringing in this weedy component! There is no completely satisfactory way to answer this argument so long as even a small percentage of fine fescue lots carry tall fescue (our survey indicated 9 out of 135 fine fescue lots contained tall fescue). No doubt a certain amount of the seed is spread from roadsides let go to seed, or from ungrazed fence rows around pastures. But so large a seed would not disperse great distances in the wind, and one wonders if other dispersal means may not be more important (is it consumed by birds, and if so, does some of it pass through the digestive system unimpaired?).

While tall fescue is a rugged grass for difficult, hot sites, and is sometimes recommended even for lawns in parts of the South, don't forget the cautions generally voiced along with the recommendations. For example, Vic Youngner,

Institute advisor in California, in discussing tall fescue for Western Landscaping News, has these reservations: "The main fault of tall fescue as a turfgrass other than its wide, coarse leaf blade is a tendency to form clumps as the turf becomes old. - - Tall fescue should not be used for small show lawns because its wide leaf will not present a satisfactory appearance. - - One common cause of disappointment with tall fescue is too low a seeding rate. 8-10 lbs. of seed per M (is recommended)."

Unfortunately, such "go slow" statements are partially hidden in the context of more positive discussion; for a garden center or seedhouse to maintain a quality reputation, however, these objectionable features should be made strongly clear to customers. And the producer can certainly help, by roguing fields and cleaning seed well so that the industry can unequivocally state that tall fescue is not introduced with Oregon fine fescues or other fine-textured grasses.

PLANTING IDEAS

One of the more important Institute activities that doesn't show up in reports to the Board of Directors is day-by-day handling of minor matters, which, without attention, would leave the impression of a "vacuum" rather than a progressive quality lawn seed industry image. Along with prompt, courteous handling, there is usually chance to urge favorable action in the cause of quality lawn seed.

For example, in the several exchanges of correspondence with Argosy Magazine, (reported elsewhere), attention was additionally directed to seed and grass. Here, for example, is the penultimate paragraph in a letter to the Director of Editorial Promotion:

"All in all, these make excellent spring coverage, and Argosy is to be complimented in putting across some very useful information that would probably not be read except for your interesting mode of presentation. Should you find any degree of amplification or rewriting shaping up, might I suggest just a little more attention to a few of the recent turfgrass developments that make the whole job of selecting lawn seed and lawn type much simpler. Almost every state now carries the rule, for example, that the fine-textured grasses (the Kentucky bluegrasses, the fine fescues, the bentgrasses, etc.) must be grouped as a superior assemblage under the 'fine-textured grasses' heading. This alone is a pretty good indication of quality. And secondly, what with tall fescue becoming a worse weed through much of the nation than is crabgrass, it could be a worthwhile service to your readership to distinguish between the elegant fine fescues (in varieties such as Chewings, Illahee, Pennlawn, etc.) and the coarse tall fescues (Alta and Kentucky-31)."

INDIANA NEWSPAPER FORUM

The Muncie, Indiana Star, and Muncie Evening Press, are initiating an expanded Lawn and Garden Forum this year, covering three nights devoted respectively to lawns, trees and shrubs, and annuals and perennials. Dr. Schery has been invited to lead off with a presentation covering lawns, April 22.

TURFGRASS PORTRAIT SERIES FINISHED

The series of nine individual Portraits of lawngrasses, beginning with bluegrass, fine fescues and bentgrasses, were completed with coverage on southern grasses in the January, February and March issues of "Weeds, Trees and Turf" Magazine. The latter included bahiagrass, centipedegrass and st. augustinegrass. The series has been enthusiastically received, with reprint orders as great as 2 M copies for certain of the individual coverages.

OHIO ACADEMY

Dr. Schery, as Director of the Lawn Institute, was recently nominated for a Fellowship in the Ohio Academy of Science, in recognition of scientific and conservation efforts.

RUTGERS TURFGRASS CONFERENCE

One of the excellent practical turfgrass programs is that held in January by the Rutgers (New Jersey State) University. The program for the first three days concerns itself with "Turfgrass Course On Lawn, Utility and Athletic Field Turf," and the final three days "Turfgrass Course On Golf And Fine Turf." The last day of the first session and the first day of the final session overlap with a joint audience, and it was on this day that Dr. Schery, representing the Lawn Institute, spoke upon "It Pays To Buy Quality Seed." Other presentations of that day included "The Past And Future Of Turf," by Fred Grau, "The Effects Of Insecticides On Turf," by Herbert Streu, miscellaneous comments mostly relating to disease, by Davis and Batchelder, "Turfgrass Developments In Pennsylvania," by Joseph Duich, and a banquet presentation (a golf course travelogue), by Tom Mascaro. Approximately 300 professional people were in attendance.

Subject coverage on other days included "What Can A Homeowner Expect Of A Lawn?," by Institute member Warren Lafkin, discussions on turf in architecture, sod, highway plantings, etc. Grass varieties, weed and extension problems were reviewed. The golf course superintendents met at the Forsgate Country Club for their terminal discussions, and heard about nitrogenous fertilizers from John Dunn, herbicide treatments from Ralph Engel, new varieties from Reed Funk, golf green soils from Joe Duich, and a number of specific course management discussions. Russell Alderfer spoke about soil compaction, Lee Record traffic damage, and several others on similar practical problems having to do with wear and tear of turf on the golf course.

BLUEGRASS-FESCUE RESPONSE

Juska, Hanson and Erickson report in the January-February Agronomy Journal, on "Effects of Phosphorus and Other Treatments on the Development of Red Fescue, Merion, and Common Kentucky Bluegrass." There have been so many reports of "excessive" phosphorus when turf soils are tested, that it is interesting to note here that even the highest rates of phosphorus (approaching a ton per acre), was in no way detrimental. In fact it was often mildly stimulating even at the higher concentrations. This is especially true for the top growth of Merion. High levels of phosphorus seem to be of more benefit when nitrogen, too, is adequate.

As might be expected, a low pH was relatively disadvantageous to bluegrass. A small addition of phosphorus then materially increased performance as compared to no phosphorus at all. The degree of this effect varied with soil. Fine fescue behaved in much the same way, although this species appeared somewhat more tolerant of acid soils than Kentucky bluegrass.

All in all, the study may be summarized as indicating great tolerance of high levels of phosphorus by all grasses, somewhat better benefits from the phosphorus when nitrogen also is adequate, slightly greater usage of phosphorus by Merion than by common bluegrass; and, as has often been demonstrated, a reduced ratio of roots and rhizomes to top growth as nitrogen fertilization is increased.

CALIFORNIA ADVICE

Vic Youngner, Institute advisor at UCLA, has the following to say in his report on fall and winter turf care, in Western Landscaping News. "In many areas bluegrass turf requires a general overseeding nearly every fall to maintain the desired turf density. Usually it is necessary only to rake thoroughly, broadcast 1-2 lbs. of seed to each M of lawn, and topdress lightly." It has always seemed that in marginal climates seedsmen should conduct a rousing campaign for utilizing good seed mixtures on an annual basis, the same as homeowners have come to expect fertilization, watering and weed control.

Youngner goes on to comment upon winterseeding, which he advocates being done for southern California before December 1. By way of contrast to ryegrass, he states: "However, a more attractive lawn will be achieved with the use of Creeping Red fescue or Poa trivialis. In addition these grasses will provide less competition for the bermuda in the spring as it begins new growth." He goes on to suggest winter fertilization, especially where one wishes to favor Dichondra over volunteer bermuda in mixed Dichondra lawns.

INSTITUTE STORY IN CROPS AND SOILS

Crops and Soils magazine, November, published by the American Society of Agronomy, carried the story "Lawn Seeds Cause Few Weedy Lawns" summarizing recent informational material developed by the Institute. The story relates, in part: "All too often the homeowner blames the source of his seed, rather than realizing that his problems start at home - - the Lawn Institute concludes, after studying some 300 tests - -."

Again, "Dr. Schery points out that the most frequent and troublesome weeds in lawns today are seldom carried in the lawn seed - - the most troublesome seeds in lawn mixtures are seldom classed as weeds - - (but crop) - - timothy or other haygrasses."

The item concludes: "But most lawn weed problems begin at home - in the lawn's soil, says Schery, not in the seed box."

RHODE ISLAND ADVISORY

"Grasses And Seed Mixtures For Lawn Turf," by Institute advisor Skogley, University of Rhode Island, is the subject of Extension Bulletin 178. The cover

bears two Institute photos, with credit given, and as part of the credit "Sowing good seed, such as the Kentucky bluegrass and Oregon fine fescue varieties, and proper care can result in the thick stand of fine-leaved hardy grass shown." "The fine lawngrasses, Kentucky bluegrass and Oregon red fescues, contrast with the coarse tall fescues and ryegrass. - - bluegrass-lawn fescue blends afford many more seeds than do cheap haygrass mixtures."

Skogley does not treat Highland bentgrass as well as he does bluegrass and fine fescue, although acknowledging that Colonial bentgrasses are chief component of many northeastern lawns. Recommended to readers are one of two URI mixtures, No. 1 consisting of half fine fescue, a quarter each of Kentucky bluegrass and Merion Kentucky bluegrass; mix 2 of 40% fine fescue, 30% Kentucky bluegrass, 10% Merion, and 20% ryegrass. The latter is particularly for slopes or poor planting seasons.

GOOD ADVICE

We can be pleased with this statement in the "Your Lawn" booklet by Agrico: "Cheap seed mixtures are a poor economy; they will not produce a high quality turf - - a pound of bluegrass contains about eight times as many live seeds as an equal quantity of ryegrass." How many such statements has Institute literature inspired?

ARGOSY PREVIEW

Argosy Magazine, New York, sent advance proof to the Lawn Institute offices, of "The Great Crabgrass War" and "Push 'em, Drive 'em, Ride 'em - The Lawnmowers," part of an upcoming section of the magazine entitled "Spruce Up For Spring." these are to appear in the May issue, on sale April 20.

Author Paust uses the interest-catching crabgrass name as vehicle for later presenting some reasonably sound lawn-tending advice. Much of this was gained from Rutgers Experiment Station, which in turn may have passed along expressions from the Lawn Institute. After the usual "cute" references to lawn-tending ignorance and the crabgrass problem, Paust eventually tackles the alternative to crabgrass, good grass. He says, of the nurseryman: "He'll recommend the kind of grass seed, too. It will depend mostly on your geographical area because types do better in hot, dry climates, others where it's wet and cool. Etc. Kentucky blue is one of the handsomest and most popular, although he'll undoubtedly suggest a mixture so that you'll have little blades to fill in the spaces between the larger ones for complete coverage, and hardier strains which might not be as handsome but will maintain your green lawn when the prettier ones lag behind - -."

One might have wished for a more precise definition of what are quality lawn-grasses (with reference to the new labeling requirements that group them as fine-textured), and considering the reasoning given for a mixture perhaps some caution about not letting tall fescue get into the act. But all in all, the story weaves sound information throughout what is designed to be a humorous presentation. As such, it is cleverly done, and reading that might well be recommended for the neophyte who would never glance at a gardening article.

Daniels authors the mowing story, and jumps immediately into mowing equipment - choices, specifications and prices. The article should prove helpful to new suburbanites, trying to decide just where they fit into the mowing picture, size of lawn and budget considered. The story looks at mowing from the user's standpoint, not the grass'; it might complement the other advisory on lawn tending better, if there were occasional reference to seasonal performance of major grasses such as Kentucky bluegrass, as exemplifying "peak demand" for mowing (with sufficient capacity for the peak); and fuller contrast between the upright and the trailing grasses, especially as this might reflect choice of reel or rotary mower. But again it is a story to whet interest, and skillfully conveys information that by and large is quite sound.

We are grateful to Argosy for sending this advance proof, so that our members may be alerted to this forthcoming national presentation.

MORE REPRINTS DISTRIBUTED

The following letter, to Mount Hope Cemetery, is self-explanatory:

"Mr. Richard Kushner, our valued colleague with the Oregon Fine Fescue Commission, has asked that the Lawn Institute send directly to you 50 copies each of:

Gobs of Good Grass
Turfgrass Portraits II (Fine Fescues)
Planting The New Lawn

We are delighted that these reprints can be put to good use (I understand from Dick that one is to be mailed monthly to members). Additional materials can be supplied if you run short.

We are most pleased to note this interest in these stories."

SEED WORLD CARRIES INSTITUTE ITEM

The February 26 issue of Seed World made good use of Lawn Institute materials, utilizing in their Bulletin Board Suggestions, "How To Distinguish Bluegrass," with author and Institute identification. You may recall that this item begins "Kentucky bluegrass has gained an envied reputation as an outstanding lawn species. Along with fine fescues, it is an important element of most good lawns." Thereupon, several distinguishing features are discussed.

REDUCED NEWSPAPER SPACE

The Luce-Romeike "Clipping Newsletter" points out that while prior to World War II editorial comment in newspapers was twice as abundant as advertising, now advertising is twice as abundant as editorial content. It follows that only half as much space is available for informational materials, though competition for this space is greatly increased through intensive use of press releases. The Lawn Institute is indeed fortunate that its press envelopes have received such wide use and acceptance in the face of this space squeeze and intensified competition.

SCHOOL MOVIES

A restricted budget for showing "Bluegrass Beauty," and the desirability of updating this film, makes some of the recent information on providing aids for school teaching of interest. 60% of the companies which do provide school aid provide materials in the audio-visual field. Business feels it is important enough to approach the population at the school-age level, to spend \$160,000,000 annually. Trade associations alone spend \$10,000,000.

STORIES DISTRIBUTED DURING QUARTER

During the first quarter of the year "Lawngresses: What Kind For Your Customer?," from Lawn/Garden/Outdoor Living: and "Quick Spring Greenup," from Flower & Garden Magazine, were both reprinted and distributed to the membership. Both have drawn favorable comment, and have been well received as handouts during public presentations by Dr. Schery, as well as for distribution through the Institute membership.

MARYLAND LAWN BULLETIN

Bulletin 171 from the University of Maryland, "Maryland Lawn Care," has been recently received. As is the case with most of the recent crop of state lawn bulletins, this one from Maryland is well written, attractive, with sound information. It is 16 pages, authored by Santelmann, Miller and Wagner.

The bulletin reflects Institute positions, viz.: "Check - - before buying any lawn mixture to be sure it contains lawngresses and not coarse, tall-growing pasture grasses.", "New or exotic grasses or ground cover plants are frequently widely publicized, but usually are not satisfactory."

As to grass recommendations: "Kentucky bluegrass - The most widely used lawn-grass in Maryland. It is well adapted to good soils under full sunshine or partial shade.", "Merion Kentucky bluegrass - It will withstand shorter cutting - -.", "Red fescue (Creeping Red, Pennlawn, Chewings fescue) - Best grasses for shade or for soils that tend to be droughty.", "Bentgrasses (Highland, Astoria - -) - Fine-textured grass that can make a very good lawn - -."

A forthright position is taken on the often controversial issue of lawn watering: "Since Kentucky bluegrass becomes semi-dormant during the hot weather and grows very slowly then, watering at this time to force or increase growth will weaken the turf and encourage crabgrass." This is especially the case in border states such as Maryland.

BLUEGRASS BOOST

The influential Midwest Turf News and Research Report, Purdue University, has come around to recommending bluegrass fairways. While not all of Dr. Daniel's recommendations will prove practical, we are delighted to see that the pressures in favor of bluegrass and the ideas funneled back to Purdue, seem to have resulted in a rethinking about bluegrass for northern climates (rather than U-3 bermuda, and certain zoysias, for a number of years all the rage).

The full recommendations of report 29 (October 1964, but not received until recently) are onerous. Daniel recommends bluegrass fairways mowed well under an inch height, only if - - -. The if involves availability of irrigation when needed, a broad range of chemical weed controls, and other intensive management practices. Even the plushier golf courses seldom can be so painstaking.

On the other hand, it is good to see the bluegrass name again in the forefront in bluegrass country. And this Purdue recommendation will be good ammunition for those selling seed to golf courses. We urge members to take advantage of it.

One intriguing idea results from this, and from the Institute's experience in winterseeding golf greens in the South. Why not more emphasis on overseeding? If a golf course can spend all this money and effort for a myriad of sprays, they can certainly afford bolster seeding each autumn, and probably autumn and spring both. The cost would be but a fraction of what is entailed in de-thatching, crabgrass prevention, etc. Why not at least annual seedings, considered "expendable" in the same sense as is a fertilization? Maybe we should be experimenting more, and talking up more, the inclusion of quality seeds with fertilizer, each time this is spread at seasonally appropriate times of year?

THE IMPORTANCE OF MICROCLIMATE

From time to time mention is made how important slight differences in slope, soil, elevation, position, etc. are on performance of grasses. A striking instance of this was reported for Canada (Greenhouse-Garden-Grass), in which within not much more than 11 feet distance, soil temperatures varied 12 to 13 degrees. Obviously, crabgrass would find a better habitat, and sprout weeks more quickly, on a "hot spot" than a "cold spot." The possible direct effects on quality turfgrass establishment, as well as the indirect effect through weeds, is obvious.

FUNDAMENTALS ON DICAMBA

Dicamba (Banvel-D) potency in the soil was reported by Friesen in the January issue of Weeds. Dicamba moved fairly readily through the soil in the soil solution, and was far more persistent than is 2,4-D. It had phytotoxic effects even months after application. Possible build-up of toxicity is suggested if unusually heavy rates are used.

INHIBITION BY CRABGRASS

A study by Elroy Rice, "Inhibition of Nitrogen-fixing and Nitrifying Bacteria by Seed Plants," was detailed in the autumn Ecology. A great many of the plants that volunteer in abandoned fields, most of them "weedy," yield extracts that are inhibitory (or occasionally stimulative) to important soil organisms, and thus indirectly to the complete succession of plant life developing in the area. One of the plants tested was crabgrass (others included foxtail, and many weeds of new lawns), which strangely inhibited microbial activity on solid media, but stimulated nitrite formation in liquid culture. Crabgrass also brought about a significant reduction in the number of nodules on an inoculated legume. Main conclusion: - there is constant (and little known) give-take in the establishment

of plant communities. Inference: - pursuance of fundamental information along these lines may someday reveal the particular antagonisms early weeds such as crabgrass have in influencing full fruition of a quality lawn.

CRABGRASS QUOTE

This appeared in Horticulture, credited to Connecticut Agricultural Experiment Station: "A crabgrass turf may not be much to look at, but it is green in season and it is self-seeding. For those who want less crabgrass, or more, in their lawn areas, recent research findings at the Connecticut Agricultural Experiment Station may be of interest. An unexpected by-product of research by three staff members is the discovery that one material used to kill nematodes, microscopic worms that attack plant roots, promotes the germination of crabgrass seed. Presumably this material may make crabgrass killers more effective by causing a higher than normal percentage of dormant seeds to sprout and be killed. Or it might be used to grow a more dense stand of crabgrass."

MORE ON NITROGEN LOSS

Studies at Southern Illinois University on loss of nitrogen from surface applications have been reported in the November 1964 Crops And Soils. On clipped fescue sod N loss from ammonium nitrate was 2.3%, from ammonium sulphate 4.1%, from urea solution 21.2%, and from pelleted urea 46.4%. This was under warm-weather conditions. In cool weather nitrogen losses are considerably reduced, as they are also generally by dry soils and acid conditions. The research supports the contention often voiced by the Lawn Institute that autumn and winter feeding of lawns is to be recommended, being more efficient than summer feeding.

LAWN INSTRUCTION

A letter from the Vocational Education Director of the Detroit Public Schools recently requested help with a lawn and lawn equipment study project. Writes Mr. Turnquist (in part): "A Detroit Public Schools Workshop is in the process of developing guides for industrial education teachers in the field of landscape architecture and its related occupations. - - I wish to thank you for any assistance you may offer. Any literature that you may recommend would be most welcome." A large supply of reprints, and a copy of "The Householder's Guide - -" were sent to the Department of Vocational Education, Detroit.

READER'S DIGEST LAWN CHAPTER

Dr. Schery has completed text for the section on lawns, in the forthcoming Reader's Digest Gardening Encyclopedia. Most materials are being adapted from the English edition, by Editor Everett. But unlike house plants, annuals, etc., lawns in the New World are strikingly different than those in England. The approximately 20,000 words which will be devoted to lawns had to be entirely rewritten.

PARK'S LAWN ESSAYS

The April issue of Park's Floral Magazine, dressed in an exquisite color cover of spring bulbs edging a lawn, carries as the Floral Essays of the month the topic "My Complete Program For A Perfect Lawn." Kentucky bluegrass decorates the top third of the two pages where the essays are printed, with credit to the Lawn Institute (for the bluegrass photo). Kentucky bluegrass is featured in the winning essay, by J. Daniel Helfrick, who opens positively "There is nothing more enjoyable than to stop in your drive or on your walk and admire the rolling green lawn that you yourself created." To have a good bluegrass lawn is really simple, says Helfrick, whereupon he discusses briefly the fundamentals of mowing, weed control, fertilization, etc.

SEAL OF APPROVAL MATERIALS SENT

In early March all seal users received newspaper advertising repros, in one and two-column width, as well as instructional sheets and suggested dialogue for radio advertising. Other members also received sample materials, in case there might be firms newly interested in employing the Seal of Approval.

A major seal user, Northrup, King, intends this year to concentrate mostly on radio presentation, having found this to be quite successful. The brief commercial takes pains not only to mention the Seal of Approval (both at beginning and end), but to recite the qualifications for which the seal is granted.

NEW GARDENING INFORMATION CENTER

The Council of Albuquerque Garden Clubs has asked for reprints and background literature to help supply the reference library at the newly organized "Gardening Information Center." Institute advisor Dr. Dittmer, the University of New Mexico, had recommended our materials to the Organization and Operation Committee.

The announcement, mailed by the Council to all clubs in the state and other interested parties, reads in part: "The Council - - is pleased to announce the opening of their Gardening Information Center - - (times and location) - - there will be a reference library with books on all phases of horticulture, landscaping, diseases and pests, - - - there will be displays of good growing procedures, talks by experts - - its purpose is to encourage and promote good gardening practices, community improvement and beautification by planting. - -."

COOPERATION WITH COLUMNIST

During the quarter George Abraham, author of the syndicated "Green Thumb" column widely utilized across the nation, submitted five different inquiries having to do with lawns to Dr. Schery for reply. Mr. Abraham then answers such inquiry in his column, or by return correspondence to inquirers. Last year 7 M reprints were distributed in behalf of the Lawn Institute by Mr. Abraham.

Several interesting inquiries were included recently. One gentleman was wondering why lawns develop so well where potatoes had been previously grown (is it true? several speculations were advanced). Other inquiries ranged from home putting greens through kinds of lawns and lawn maintenance to the usual problems about declining grass and choice of proper species. We're indeed grateful to George Abraham for his friendliness in putting the Lawn Institute this step closer to the actual seed purchaser.

INDEPENDENT WINTERSEEDING SURVEY

Dr. Schery has reviewed in his report to Oregon seed growers, the conclusions of a survey made by Southern Turf Nurseries, of 85 golf courses in the Southeast. Southern Turf Nurseries is a supplier of vegetative plantings for golf courses (as well as being basic in centipede seed).

The middle and upper South remains primarily dedicated to winterseeding with ryegrass, while the tourist meccas of the deep South are switching to fine-textured grass mixtures. Eighty percent of the Florida courses in this survey had changed away from ryegrass. Less than 10% of all courses in the survey did no winterseeding. *Poa trivialis* is probably the most frequently included fine-textured grass, although encouraging amounts of fine fescues, Kentucky bluegrass and bentgrass are also being employed these days.

LAWN STARTS IN CANADA

The Research Branch, Canada Department of Agriculture, reports in its fall issue of "Greenhouse-Garden-Grass" on some interesting studies on starting conventional lawngrasses under controlled temperature any day length, made to simulate seasonal timing outdoors.

All bluegrasses, fescues and bents germinated well and achieved adequate density when started in late August or early September. Merion was slower than natural Kentucky bluegrass, and the bluegrasses slower than fine fescues or Penncross bent.

Sowings made later than September 14 achieved less adequate density and less adequate rooting, progressively poorer as the season advanced. Again the bluegrasses were more appreciably slowed down than fescues and bentgrass. Seedings made after the middle of October would probably not germinate until the next spring under average weather conditions.

COLORADO TURFGRASS ECONOMICS

Reporting to the Eleventh Annual Rocky Mountain Regional Turfgrass Conference, A. G. Rydstrom, an investment consultant, examined the value of turfgrass. Here are a few gleanings : over half-million home sites, averaging a quarter acre. Total of all turfgrass, about 233 square miles. 300 million dollars replacement value of the turf thereon. Adding maintenance to establishment, cost of \$860 per lawn per year (430 million for the state). Considering wages, taxes, outlays for golf courses, etc., Rydstrom concludes that right now the turfgrass industry is second only to the cattle industry in importance in the

state of Colorado, and very shortly will be first.

SLURRY SEEDING

A great deal of interest seems to have been aroused of late in the mechanization of seeding (and sprigging) by hydraulic means. The Finn Equipment people of Cincinnati have cooperated with the Institute through the years, and recently we have had long distance calls from the Evans Orchard Supply Company in Kansas City, and the Bowie Machine Works in Texas.

It appears that finally the hydraulic seeding is catching on with landscapers, as well as for the monumental roadside seeding. For the former, smaller, flexible equipment is needed. Bowie Machine Works has twelve such units in operation in the Washington, D. C. area alone, doing only landscape work. The company is the leader in experimentation of hydraulic application of springs (live starts), with a pulp slurry mulch. This is the new "Hydro-sprigging."

SPECIAL IRRIGATING SYSTEM

The Seep-A-Trol Moisture Control System, 4030 West Spencer, Torrance, California, sent literature on this new irrigation system. A small hose from a water source leads to the "nozzle," which contains a valve plug that expands when wet (shutting off the water), opens when dry (releasing water). It is claimed that the device is thus self-regulating, shutting on and off as soil moisture (and hence plant needs) dictates.

ORTHO GARDEN BOOK

California Chemical Company writes that preparation is under way for the 1966 Ortho Lawn and Garden Book, circulation $3\frac{1}{2}$ million. The company is seeking background information for this publication, and turned to the Lawn Institute for an accurate review covering lawns, lawn maintenance and lawn pest control. The quality lawn seed story in so widely distributed a publication should prove stimulative.

VERMONT LAWN BULLETIN

"Successful Lawns," circular 131 from the University of Vermont's Extension Service, has been reviewed. Institute advisor Winston Way is author. An Institute photograph is used to point up the advantage of fine-textured grass from good seed.

General appearance of "Successful Lawns" is much as described for the Maryland bulletin. Again we are pleased to see author Way advancing thoughts in the choosing of seed that may have been inspired by Institute releases. "Nothing is more important to the success of your new lawn than the seed you sow."
"Avoid so-called bargains. Buy from a reputable concern. Read the labels."
" - - bluegrasses, red fescues and *Poa trivialis* have proved successful - - these are best used in mixture rather than alone." "Kentucky bluegrass, and its varieties, Merion, Park and Newport, is the most desirable lawn species for

Vermont." "Red fescue, and its varieties, Creeping, Chewings, Pennlawn, Illahee, Trinity and Rainier, is useful on sandy and droughty soils. - - withstands partial shade, and takes a lot of wear."

The reader is advised to avoid any sizable content of ryegrass, redtop, and none at all of tall fescue or other haygrass species such as timothy, orchardgrass and brome. Bentgrass is mentioned as requiring a little extra management. All in all, it is another attractive and informative state bulletin on lawns.

THE EXPERTS REPORT

Members might find summarization of the reports given at the January Rutgers University Turfgrass Course of interest.

There was some play-down of the much-publicized "Fusarium roseum" disease. Old slides suggest that this has been around quite a while without getting out of hand (except for recent excitement), and that there is no occasion to "pull the panic button." There are many types of Fusarium, and almost invariably Curvularia shows up in "Fusarium roseum" cultures. Dithane M-45 has been suggested as a preventive by Couch, but others aren't sure there is any good fungicidal control; there may be predisposing factors which let a "complex" of soil organisms occasionally get out of control, manifest then as "Fusarium roseum" root rot.

Rutgers, under Reed Funk, undertakes thorough-going evaluation of turfgrass varieties. Norlea ryegrass is suggested as a nursegrass (if any is going to be used), being thought less aggressive at lawn seeding seasons. There were no reports of really outstanding performance among new commercial varieties, with Holfior, Kingstown, and Exeter bents, Midwest zoysia, Tufcote bermuda, Windsor bluegrass, etc. generally performing adequately but not spectacularly. Tufcote has not been very winter-hardy. For golf greens, Evansville creeping bentgrass was rated quite good. Cougar bluegrass (PNW blend) looks good initially but peters out.

Dr. H. T. Streu, entomologist, noted that insecticides can cause damage or give unexpected advantages. Where organic phosphates such as Ethion have been used persistently, fine fescue was thicker, finer in texture, and not prone to summer loss; it is not clear whether there is direct stimulation from the treatments, or whether this is an indirect effect (as through the control of soil nematodes). But some insecticides were disadvantageous; persistent use of Chlordane seemed to thin the turf, and the chinchbug counts on the Chlordane plots were twice those of untreated plots.

Dexon was reported excellent for controlling Pythium, but not useful for other diseases. There is no satisfactory control for Dutch elm disease.

Tupersan received some excellent notices, although the trial at Rutgers had shown it to injure the permanent grass (a bad formulation?). Experts concur that Tupersan is excellent for controlling crabgrass, but not Poa annua or goosegrass. It does not inhibit germination of lawn seed, although it may hold back growth of bentgrass slightly and temporarily (three weeks).

There is a feeling of uneasiness among authorities, concerning the use of herbicides. On a number of occasions toxicity has eventually built up. Root

growth of bluegrass was certainly repressed by Azak and Betasan. MCPP has proved safe, but Azak quite risky; even Dacthal has given delayed injury to bentgrass. Silvex has proven deleterious to permanent grass when used at rates much above $\frac{1}{4}$ lb./acre.

Fertilizer studies continue to show the ureaforms inefficient sources of nitrogen, and advice nowadays seems reverting back to frequent, lighter rate applications.

OREGON SEED INDUSTRY FEATURED

Under the title "Their Business Is Going To Seed," Joe Muir provided an excellent article in the Spring issue of Farm Quarterly on Oregon grass seed producers. Prominent was Don Hector and his farm, with frequent mention of the Oregon Seed Growers League. (Don Hector was present at the autumn Board meeting of the Lawn Institute, and has been active in the newly formed Northwest Bluegrass Association.) We commend this fine publicity given Oregon grass seed production, particularly to any of our Oregon members who may not have seen the Spring issue of Farm Quarterly. Many of the lawn seeds are mentioned by name.

PESTICIDE TALK

Dr. Schery spoke before the Marysville Kiwanis Club March 29, on the importance of pesticides and the recent alarmist condemnation of them. In a jittery world replete with greater hazards, one wonders why "Silent Spring" was able to rouse such public concern through one-sided and frequently unscientific documentation.

GOOD GRASSES NAMED

It's always nice to hear quality grasses mentioned by name through related interests. A lot of this is occurring now in the publicity given Tupersan, DuPont's new crabgrass preventer that does not interfere with germination of lawngrass seed. For example, research reported from the University of Illinois reads: "Rates of 7 lbs. or less have not reduced germination or seedling vigor of Kentucky bluegrass, Creeping Red fescue, redbot or bentgrass, - -."

LOS ANGELES COUNTY TURF FIELD DAY

Dr. Hamilton Williams of the Los Angeles State and County Arboretum informs us that the Southern California Turfgrass Council and the University of California Extension Service executed another "Operation Green Carpet" exposition March 20-21. The Lawn Institute was invited to participate, as well as help formulate plans. The "Green Carpet" part of "Better Lawns Week", in Los Angeles invites educational exhibits, and provides turf areas for demonstrating equipment free of charge. No direct selling is allowed.

GREENUP ON THE WEST COAST

The Chas. H. Lilly Company has found good use for the distribution of 100 copies of "Quick Spring Greenup" by Dick Kuehner, as well as additional supplies of "Lawn Seed Sweepstakes." We are grateful for Glen Mahan's help.

SOLUTION-MODIFIERS ON KENTUCKY BLUEGRASS

Institute advisor Roberts, and David Lage, Iowa State University, report in the January-February Agronomy Journal on the effects that several agents which can be added to water have on the performance of Kentucky bluegrass. The experiments were conducted on Kentucky bluegrass grown in solution culture, after four months initial growth. It is likely that from the practical standpoint materials influencing osmosis and evaporation will not prove very practical. But surfactants (wetting agents) are already being widely utilized for specialty turf such as those on golf greens, and for improving penetration of herbicides. This research indicated that a non-ionic surfactant had appreciable detrimental effects on the bluegrass, especially at higher rates.

AGAIN POA ANNUA

Diamond Alkali has leveled a strong attack against Poa annua in a spring news release, "Poa Annua Gains New Status In Lawn Owner's Rogues Gallery." This apparently is in consideration of the species having been declared noxious recently in a number of states. Although long present, Poa annua is now much more in the limelight. The Diamond Alkali cure is with $1\frac{1}{2}$ normal concentrations of their pre-emergence crabgrass preventer, Dacthal, used also in autumn.

As to seed sources, this from the release: "Also, according to some available surveys, there is a great deal more Poa annua in grass seed imported from Europe than in domestic seed." And again, " - - one of the poorest investments a lawn owner can make is in cheap seed - - (there is) an unfortunate outpouring of bargain stuff nowadays. Good seed is essential for good turf - - and good turf is basic for any weed control problem."

IN THE TRADE

Smith-Douglass (Nutro), in their series of attractive leaflets on gardening, has this to say about "Starting A New Lawn": - "Use only high-quality lawn seed. A pound of good bluegrass-red fescue mixture contains up to 2 million seeds and covers two or more times the area of 'cheap' mixtures containing coarse, temporary and 'weed' grasses." Bit by bit the quality lawn species stories permeate the gardening community.

DACTHAL INFLUENCES TURFGRASSES

The January-February issue of the Agronomy Journal, carried a report by Rhode Island researchers on "Turfgrass Response To Dacthal and Nitrogen." In substance, two years of testing showed Dacthal (applied as recommended for pre-emergence crabgrass control) to cause appreciable reduction in fine fescues, some reduction in Colonial bentgrasses, and little or no influence on bluegrasses in mixed stands

of these species. The amount of thinning could be lessened by nitrogen fertilization, except that generous nitrogen fertilization intensified disappearance of the fescue to the advantage of the other grasses. In some instances the Dacthal gave a darker green color to the turf. Influence of the herbicide (and the fertilizer) was not so much on deterioration of the turf, as in re-organizing the grass population, with bluegrass being favored over fescue and bent by Dacthal use.

CRABGRASS STIMULATION

A study reported in the January issue of Weeds indicates that the germination of dormant crabgrass seed can be markedly increased by certain nematocides. Less than 5% of freshly matured crabgrass seed sprouts, though this may increase to as much as 75% with after-ripening for several months. The nematocide treatments seemed unable to substitute completely for after-ripening, but percentage of germination was significantly increased, not only for crabgrass but also barnyard grass and lamb's quarters. On the other hand, germination of Kentucky bluegrass, Merion Kentucky bluegrass and Highland bentgrass was significantly reduced by the nematocide DCBP. This suggests possible inferior performance of new lawn seedings if nematocides are concurrently used.

AMERICAN EXCELSIOR INTEREST IN SEEDING

Mr. R. H. Stamm, representing the American Excelsior Corporation, Chicago, visited the Lawn Institute in January, to talk over the company program utilizing excelsior as a mulch material. Previously trial material had been sent the Institute, and had been utilized on the grounds. Mr. Stamm brought movies as well as display materials, depicting use of the excelsior product for automated roadside mulching.

It appears as if the excelsior material makes an excellent mulch, not prone to blowing. It is especially effective for controlling gully wash when formed as flat layers contained in a thin woven netting. Baled or packaged excelsior would seem competitive with peat moss and other familiar mulches at the garden center, on the basis of prices contemplated.

VARIETY APPROVAL

Norm Rothwell, Hogg & Lytle, Institute member headquartered in Oakwood, Ontario, Canada, telephoned recently checking on varietal performance of certain bluegrasses in this country. Mr. Rothwell has been named chairman of a committee having to do with "approval" of turfgrass varieties for marketing in Canada. Mr. Rothwell is conscientiously checking all sources of information, as his committee begins this new phase of activities.

GETTING THE POINT ACROSS

Apparently the case for domestic seed, which the Institute has discussed with the Milwaukee Sewerage Commission from time to time, is receiving attention.

A report in Golfdom lists Jim Latham, of Milwaukee Sewerage Commission, having this to say when appearing before a Turf Clinic of the Golf Course Superintendents Association: " - - Latham suggested that superintendents buy only U. S. harvested seed because foreign growers make little or no attempt to winnow weed seed from the grass seed they sell - -."

HIGHLAND BENT ARTICLES APPRECIATED

"Thank you for your letter of the 11th, enclosing article re Highland Bentgrass Commission.

We will be happy to publish one of these in our March issue - - and the others in later issues." - Albert Kates, Editor, The American Cemetery

DIRECTORY FOR SOURCES OF ASSISTANCE IN RECREATION

Extension bulletin 481 of Michigan State University carries this title, and lists the Lawn Institute among its "national organizations" (which range from the American Association of Botanical Gardens and Arboretums to Wildlife Society). The preface states "this directory is provided as a reference guide to available sources of assistance in recreation." The Lawn Institute is said to offer "reprints of articles about lawns and turfgrass are available upon request." The names and addresses of all national organizations, Michigan organizations, and both federal and state organizations are given.

STUDENT REQUESTS INFORMATION

"I am a student at the State University, Agricultural and Technical College - - doing a term paper on "Delta Kentucky Bluegrass" for my Turf Management Class. I would appreciate it very much if you could send me information - -." - John Dalesandro, So. Ozone Pk., New York. The Institute was happy to send Mr. Dalesandro reprints dealing with Kentucky bluegrass.

WHAT THEY ARE SAYING ABOUT THE INSTITUTE AND ITS RELEASES

"Dear Bob: Please accept my thanks for accepting our invitation to participate in our Roadside Development Short Course. As soon as the program is completed the details will be sent to you." - Wilbur J. Garmhausen, Chief Landscape Architect, Ohio Department of Highways

"Dear Dr. Schery: First, I must say how much I have enjoyed reading Turfgrass Portraits. - - If possible, I would like to make an exclusive file of the nine articles - -." - Ed currlin, Supt. Tucson National Golf Course

"Dear Bob: Your presentation at the recent Rutgers Three-Day Turf course program was greatly appreciated - - Rutgers needs and appreciates the contribution you and others have made to our program. With sincere thanks." - Ralph E. Engel, Professor in Turfgrass Management, Rutgers University

"I have just been looking through the January issue of 'Better Lawn Harvest.' This publication is loaded with very excellent information. Wish I had the ability to absorb and retain a small part of it. - -" - G. O. Newton, Vice President, Consumer Products, Northrup, King & Co.

" - - I would appreciate receiving three or four extra copies of your 'Turfgrass Portraits' on bermuda and zoysia if you can spare them. They're all very good but these two fit into my 'picture' very nicely. Thanks in advance. - -" - Chan Baker, Baker Grass Industries

"Dear Bob: Thanks for the portfolio of lawn stories which arrived today. I appreciate very much the opportunity to have them, and you can be sure I have not forgotten you." - Edwin F. Steffek, Editor, Horticulture

"Your 1965 edition for Spring just arrived today. They always are appreciated and are made use of in my weekly gardening columns and elsewhere. Thanks again for your efforts." - Claude M. Gray, Associate Editor, Walla Walla Union-Bulletin

"Dear Bob: Thank you for the pictures you sent us for illustrations in the seed technology brochure. - - Your fine cooperation is greatly appreciated." - Louis N. Bass, Science Education Editor, National Seed Storage Laboratory, Fort Collins, Colorado

"Dear Dr. Schery: We have received the photographs and additional material which you sent on grass seed. We sincerely appreciate your helping us - -." - Jack Thrift, Vice President, Kirkland, White & Schell, Inc.

"Enjoyed your lecture very much. Thank you." - Harold Hoffman, Hoffman's Flowerland, Sheboygan, Wisconsin

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