BETTER LAWN -- HARVESTS

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#### ANNUAL MEETING PLANS

President Mangelsdorf has tentatively set Tuesday, May 21, for the Lawn Institute Annual Meeting, at the Kansas City Club, Kansas City, Missouri. The agenda has not been finalized as yet, but the meeting generally begins around 9:30 in the morning, and terminates by midafternoon. Mr. Mangelsdorf asked that word be sent him immediately if there are conflicts that would make this date inconvenient.

President Mangelsdorf has nominated Col. Edward Spears, Woodford, Spears and Sons, Paris, Kentucky as chairman of the nominating committee. He asks that members of the board of trustees or other interested parties submit suggestions to Mr. Spears for officers to be elected at the annual meeting.

Further details and a tentative agenda will be sent all trustees at a future date, and the Marysville office would be pleased to hear from any other members planning to attend the annual meeting.

#### PRESS KIT MAILED

On February 12 approximately 900 of the familiar Lawn Institute press kits were mailed to a select list of newspapers, extension people and radio-TV outlets, mainly in the northeastern quarter of the country. Members, of course, received a kit by way of example, and in the hope that this might be passed along to local informational channels.

For the first time the kit was produced in Ohio instead of Kansas City, Missouri. This was partly necessitated by a death interfering with the service usually engaged in Kansas City, and partly because of the need for increasing economy in view of the limited Institute budget. Production and mailing costs were shaved by adopting single-spacing on this occasion, even though the advantages of double-spacing are recognized. It was felt that the Institute press kit has become sufficiently familiar to recipients so that it will be accorded attention, editors knowing that the items have been thoroughly worked over and probably in need of a minimum of customizing. This is difficult to check upon without funds for an opinion survey or clipping service comparable to that engaged in the past.

We are grateful to president Mangelsdorf for having arranged the printing of the standard green-grass folders and envelopes in St. Louis, upon very short notice. These were received in Marysville within 24 hours of printing, sent by bus. Copy for enclosure awaited the folders in Marysville, reproduced economically in Columbus directly from text carefully typed by Mrs. Rush at the Institute office. Additional hired services were engaged to complete folding, labeling, stuffing and stamping. In addition to the covering letter (on specially printed, inexpensive letterhead), there were 9 pages of text representing 33 individual titles (ranging in length from a full page singlespaced, to as little as a single sentence), and 2 substantuating reprints, "The Lawnmaker's Year" and "Select Seed Wisely".

# FIRST PRESS CLIPPING IN

The first press usage of Institute material for 1968 of which we are aware, is in the Walla Walla Union-Bulletin of February 16. Claude Gray unearthed information from last year's release (and writes that he is most grateful for the new information, too), relating to fertilization of Kentucky bluegrass and fine fescue early in the season. Frequent mention of Kentucky bluegrass and fine fescue was made as well as a resume of the Lawn Institute's Seal of Approval.

# MORE PRESS CLIPPINGS

A group of early February press clippings was sent to the Marysville office by Borden Chemical, reflecting use by Earl Arnson of information sent him, in which he again credits the Lawn Institute by name. A pickup of this publicity was noted in Maine, Connecticut, New York, Pennsylvania rather widely, Maryland, Michigan, Indiana, Wisconsin, Kentucky and North Carolina.

#### PRESS RELEASE APPEARS

We are very pleased with the prominence accorded Institute materials in the press release "Beautify Your Corner of America", co-sponsored by ASTA and florists groups. The material is issued in "clip sheet" form, of exact column size to fit newspapers. This supplement is said to have been used last spring by 365 newspapers with a combined circulation of over 16 million, according to the Washington, D.C. advertising firm responsible for its production. Our clipping service verified last year that there was considerable pick up of the two stories the Institute then supplied, and this year should be even better what with 5 different items being included. Especially prominent is a Lawn Institute photograph that is featured at the top of the first page in three column widths, with the caption "Feed and seed your lawn as early as possible this spring, advises the Lawn Institute. Seeding provides a thicker stand, and fertilization assures the vigor of new grass before hot weather weeds can provide competition. "

The stories that were prepared by the Institute ranged from a double column spread of about 12 column inches under the headline "Grass Seed Now Available for All Lawn Conditions", to a short item of about 2 column inches entitled "Kentucky Bluegrass Popular for Lawns", both smack on the first page. On the second page is "Seed Your Lawn Early", on the third "You Can Grow Grass Under Shade Trees", and on the back page "Pedigree Bentgrass Good for Moist Soil", all of these of intermediate length. We anticipate favorable adoption of these stories throughout the country during the spring season, at no cost to the Institute. The opening story begins, "Never has there been finer lawnseed in wider choice, especially for the home lawn, says Dr. Robert W. Schery, Director of the Lawn Institute". The story goes on to point out that varieties exist for all conceivable conditions, now clearly labeled for certainty that the contents will be fine-textured. Varieties that are prominently available are named for Kentucky bluegrass, fine fescues and bentgrass ("Highland is the most widely used of the colonial bents, backed by Astoria, Exeter, Holfior and others.")

Exerpts from some of the other stories: "Bluegrass is synonymous with beautification, providing an attractive backdrop for home, garden and roadside." "Where Kentucky bluegrass, fine fescue, and bentgrass are the lawn mainstays, cool weather favors them more than the weeds." "Properly blended lawnseed, combined with stepped-up feeding and high mowing, generally allows the luxury of both tree and turf, == stalwarts as the fine fescues '-''. "True-to-type bentgrass seed at one time was not readily available, but all that has changed. A select hybrid, Penncross, provides some of the best golf greens in the country from seeding, -- And colonial bentgrasses, such as Highland, Holfior, Exeter and Astoria, make economical, more easily-cared-for turf for lawn and fairway."

# PRESS KITS REQUESTED

The spring press kits seem to have been well received. It is always flattering to have additional requests from seats of learning, such as from the University of Vermont for additional copies. It makes us feel as though we are achieving the goal of offering sound information, popularly expressed.

# STORY IN AMERICAN HOME

The April issue of American Home carried the story "Have a Lawn You Can Play On" from text supplied by Dr. Schery. The considerable editing that always takes place in such "big time" magazines inevitably allows a few errors and changes of implication to creep in, but the main gist of the story is maintained. A colored photo showing children playing badminton on a home lawn headed the story on the top 2/3 of the opening page.

The story emphasizes that a play lawn today can look just as well as a "show" lawn, by planting it to adaptable types of fine-textured grass and managing them according to their needs. Merion Kentucky bluegrass, Penncross and Highland bentgrasses are specifically cited.

There follows more detailed discussion by section of country, and 2 charts, one listing northern varieties, the other southern. Not all varieties could be named, but most of the ones that are commercially available are cited at least in the charts. A couple of typographical slips mar the later text, but these have been corrected in reprinting. Since other reprints technically more under Institute control provide this information a bit more precisely, reprinting was scheduled chiefly to serve in press kits, and for handouts where a home magazine may afford more prestige than a technical one.

# SUPPLEMENT STORIES MAILED

Each member was mailed a photocopy of the 5 stories prepared by the Lawn Institute for the ASTA-sponsored supplement sent nationally to 365 newspapers, with a combined circulation of more than 16.5 million.

#### INSTITUTE STORY IN ROSE ANNUAL

The 1968 American Rose Annual appeared in early March, containing the Institute story, "Seed and Feed to Hex the Weed". Lester Satterlee, president of the American Rose Society, describes the annual as "this, our prize production." The lawn story, authored by Dr. Schery and credited to the Lawn Institute, covers 9 pages, including 5 tables. Since the item\*should be influential in future press kits, and valuable as a handout, reprinting is being undertaken.

The story emphasizes that there are two main considerations for success with a lawn, -- (1) good choice of grass, and (2) aides to its growth. Fine-textured grasses are recommended, the growth of Kentucky bluegrasses, fine fescues and leading bentgrasses characterized. "Even a small percentage of something like tall fescue in an all fine-textured mix introduces a lot of trouble", is one conclusion voiced.

# LAWN STORY APPEARS

"How to Start a New Lawn in the Spring" is a by-line story crediting the Lawn Institute, appearing in the spring issue of the Nutro Guide to a Better Turf and Garden. Colored illustrations, one of them taken on the Institute grounds, set off the text. Preparation of such stories is part of the working arrangement with Borden Chemical Company, which contributes to Institute grounds maintenance and office overhead. The story, of course, recommended usage of finetextured grasses; it is not, however, being reprinted for Institute distribution.

# STORY IN "BETTER CROPS"

The Institute is pleased to have had the invitation to place a story in the lead-off 1968 issue of "Better Crops With Plant Food", the widely distributed quarterly published by the American Potash Institute. The issue was devoted to the value of potassium on various crops, each reviewed by an expert, most of them at the landgrant universities. Dr. Schery's assignment was "On Quality Grasses", with other articles on soybeans, corn, alfalfa, grapes, peaches, pineapple, cotton, tobacco, lemons, rice, potatoes, bananas, and sugarcane.

The article opens, "Quality turf species -- such as Kentucky bluegrass, fine fescues, bentgrasses and bermudas -- need fertilizer rich in nitrogen." The article goes on to cite some of the reports from the "potassium symposium" at the last agronomy meetings. Although the story emphasizes the quality turfgrass species, its main thrust is fertilization, and reprints are not being rescheduled by the Institute (although the Potash Institute makes available additional copies of the issue). It is anticipated that in a subsequent issue of the magazine there will appear a map and citation of individual fine turfgrass species, originally submitted along with the material that appeared in this no. 1, 1968 issue of Better Crops.

# MENTIONED IN WEEDS, TREES AND TURF

The January issue of Weeds, Trees and Turf carried a brief column reporting Institute testing of fertilization on a bluegrass turf. The Institute is specifically cited.

#### BLUEGRASS STORY

The March issue of Flower and Garden Magazine carried a bluegrass story prepared by Dr. Schery. Editors had requested a review of the newly publicized low-growing Fylking, one of the varieties supporting the Institute through the Pacific Northwest Bluegrass Association. Jacklin Seed Company kindly underwrote the cost of photographs. The story also mentioned a number of other bluegrass varieties, as well as Highland bentgrass, Chewings and Pennlawn fine fescues. The Institute did not undertake ireprinting of this special item but reprints possibly can be secured through the Jacklin Seed Company.

#### YARD AND GARDEN CLINIC

Clark Jenson, Area Extension Specialist in the Omaha, Nebraska area, has been very successful in organizing the more important commercial people of the area to sponsor three consecutive weekly programs each spring, featuring exhibits and invited speakers. Dr. Schery, representing the Lawn Institute, was featured on Monday evening, February 19, speaking upon "Varietal Selection and Fertilizer Requirements". Mr. Jenson is to be congratulated on successfully marshalling educational forces where they have best chance of helping the public, -- through key dealers who are selling to and servicing the people. Nearly 200 were in attendance for the Monday evening session, most of them commercial, some from fairly distant locations in Nebraska and Iowa.

Dr. Schery's presentation reviewed various levels of lawn maintenance, noting that kind of grass, and even variety, determines fertility requirements. Local factors and management given the lawn similarly have a bearing. The reprint "Lest Hunger Haunt Your Lawn" was distributed to attendees as a sort of resume of available varieties of fine-textured turfgrass. The usefulness of the various fertility elements as then reviewed, in some detail, relating them to the needs of various Kentucky bluegrasses, fine fescues and bentgrasses. Obviously there has to be intelligent selection of quality lawn seed as well as proper fertilization to bring new plantings to healthful maturity.

# EXPANDED SEAL OF APPROVAL USE

Borden Chemical Company has announced four Nutro lawn seed blends, the top items in the line entirely fine-textured. Borden announces that the Merion blend "bears the seal of endorsement of the Lawn Institute", and the workhorse bluegrass -- fine fescue mix "the Seal of Approval of the Lawn Institute". We are pleased to have this expanded utilization of the Institute Seal.

#### HIGHLAND PERFORMS ON HIGHWAY

Ed Montgomery, district landscape architect for the Ohio Department of Highways, telephoned the Institute office for a suggested seed blend containing Highland bentgrass. This because of observations on the test plantings made two seasons ago South of Columbus. At the Institute's suggestion a blend containing Highland bentgrass had been used on one of the steep slopes at a cloverleaf. Last autumn that seeding had best held the soil. Now the highway department wants to make similar tests with new seedings North of Columbus during 1968. For these tests a mixture of approximately equal percentages of Highland bentgrass, fine fescue and the Kentucky bluegrass has been suggested.

#### NEBRASKA TURFGRASS CONFERENCE

Excellent facilities at the Nebraska Center, University of Nebraska, implemented the Sixth Annual Turfgrass Conference, January 10-12. The Institute was represent on the program by a presentation on "Home Lawns", reviewed elsewhere. Other facets of the program may be of some interest to members.

After opening remarks, Dr. Albert Dudeck, Institute advisor for Nebraska, reported on his extensive research with highway seedings, sponsored partly by the highway department. Considerable data has been accumulated on needs and kinds of grasses as one moves from the humid eastern part of the state westward. Most grasses are the conventional sort, but Dudeck was impressed with the ability of crown vetch to colonize very steep slopes that had begun to erode badly, from a simple application of seed without further soil preparation. Such seeding was successful only in spring. He also had some success with native grasses, and with saltgrass (<u>Distichlis stricta</u>). For dryland lawns, the prarie grasses are susceptible to the crabgrass preventer, siduron, even at very light rates. Adequate fertility and proper seeding time were very influential in producing weed-free turf.

Dean Lancaster reviewed the new "push" for sod certification in Nebraska. Reasonable standards have been developed and agreed upon by interested parties, but it is still to be determined whether certification will be widely accepted by the growers.

Dr. Keen, Institute advisor for Kansas, reported on "Turfgrasses for Nonirrigated Areas". Keen's discussions ranged from the familiar bluegrasses and fescues from the more humid sections to southern and native species for more westerly areas. He suggested that Ganada bluegrass might have a place, finding that it naturalizes well so far south as Wichita. He felt that bluegrasses were perhaps more durable in summer than fine fescues, but recognized the low fertility advantage of fine fescue. Buffalograss was suggested only for dry areas of low fertility, often doing well on compacted soil. Keen suggested seeding bermudagrass for temporary cover, and commented that Zoysia suffers greatly from iron chlorosis in the western part of the state. Dr. Keen also talked about "Turfgrass in Gt. Britain" in an evening presentation. An afternoon paper on landscaping dealt chiefly with European situations.

Irrigation was reviewed by Dr. Watson of Toro, to begin the second day. Watson stressed proper planning to insure satisfaction. Holmes discussed golf green construction, and emphasized that there are no halfway measures for good performance. He stressed the USGA laboratory analysis for determining a suitable rooting medium made from local sands and soils. Compaction and aerification were reviewed by Stith of West Point Products, and Watson was again called upon to discuss thatch, especially as it might build up on golf greens.

The program then split into sections relating to golf courses and to home lawns. Duplicate presentations on turf diseases were given to both sections. Administrative matters were stressed in the golfing section.

The home lawn section opened with Dr. Schery's presentation, followed by a review of familiar turfgrass diseases by Stan Frederikson of Mallinckrodt and Dr. Weihing, Pathologist at the University. The diseases were pictured and familiar control measures cited. Weihing indicated that melting out is the most serious bluegrass disease in Nebraska, and that abundant watering after initial drought stress may accentuate the severity of the disease.

J. D. Furrer reviewed "Weed Control in Lawns". A new color brochure is being prepared on this subject, and will soon be available. Dr. Furrer cites some of the test results in the Proceedings, and further distributed a mimeo list of recommended controls for various weeds. Extension has found that all of the familiar crabgrass preventers do a good job, and confirmed that there is synergism when a fertilizer is combined with pre-emergents (such as cinch, a combination of Dacthal and fertilizer). It is Furrer's feeling that with dicamba and phenoxys now available, broadleaf weed control is pretty well in hand. He feels that the arsonates do a pretty good job with annual grasses, and such things as nutsedge. He has eliminated quackgrass in bluegrass fields with heavy rates of dicamba. Safety precautions were stressed.

Holmes discussed fertilization of lawns, strongly recommending autumn feeding of bluegrass. He believes about 3 lbs. N/M annually is right for Nebraska (except for heavy feeding grasses such as Merion, which needs 6 or more). Finally Roy Rasmussen chaired sessions dealing with ornamentals, viz. cause and control of Dutch Elm Disease, insect and disease problems with ornamental trees, and lists of tree species adapted to the state. The attendance at the conference seemed about 200, including representatives of some of the military instalations in the vicinity. The conference seems to be enthusiastically received and is growing yearly.

# PRESS KITS DISTRIBUTED

The extension service in several states frequently distribute Institute press kits. This year, to be certain good use was being made of these issuances, the state extension officer was asked whether the kits were really useful.

Chuck Drage, Extension Horticulturist of Colorado, wrote Mrs. Rush, "We have been receiving ten sets each time. I send them to extension agents where they will do the most good." Ed Cott, Extension Horticulturist for Iowa, kindly agreed to reproduce in his own office the few sheets of which we were short, viz. "It will not be necessary for you to make a special run on the extra pages needed. We can handle all of this here in our office very satisfactorily"

Multiple press kits are also furnished Massachusetts, Maryland and occasionally other states.

# FINE FESCUE PUBLICITY

"Lawn Fescues Check Weeds" appeared as the Bulletin Board suggestion in the February 23 issue of Seed World, credited to the Lawn Institute. The item opens "That fine fescues restrain weeds in the lawn does not seem so surprising in the light of research --". Later, "Favorite varieties of fine fescue, much used with Kentucky bluegrass in top lawnseed blends, are -- Creeping Red, Chewings, Illahee, Highlight, Pennlawn and Rainier -- they have been noted to gain the upper hand gradually over weed grasses." A final salute, "So, viva Lawn Fescues!"

# WINTERGRASS IN FLORIDA

Fine fescues and Kentucky bluegrass seem to be gaining greater attention for the winterseeding of golf greens in Florida. Both ranked very well in the report on "Selection of Grasses for overseeding", H. G. Meyers and G. C. Horn reported in the late 1967 Florida Turfgrass Conference.

Five different grasses, alone and in combinations, were rated. Any rating lower than 6 was considered unsatisfactory. Ryegrass rated only 4.65, while Pennlawn fescue was 6.33, Penncross bentgrass 6.52 and Kentucky bluegrass 6.97. Highest rating achieved in the tests was Pennlawn fescue at 15 lb. in combination achieved the rating of 7. In general grasses planted alone, or only a few in combination, proved superior to blends with many components. Ryegrass almost invariably pulled the rating down when it was combined with fine-textured species. Only one ryegrass, the NK-106 perennial, received ratings comparable with fine-textured species.

Members interested in the wintergrass seeding market may want to review the charts and discussion at length, beginning on page 47 of the Proceedings (vol. XV, 1967). A few of the statements made include:

"Bent, fescue and bluegrasses are finer textured and have better putting quality than domestic rye; however, seed cost is greater and establishment of bents and bluegrasses slower."

"There was no difference in the appearance of pure stands of bent, fescue and <u>Poa trivialis</u> and except for fescue they were as good as bluegrass. All the preceding mentions had better appearance than rye."

"Rye decreased appearance when mixed with bent, fescue or bluegrass because of its coarse texture. When rye was mixed with <u>Poa trivialis</u> the resulting mixture was better than pure rye but no different than pure <u>Poa trivialis</u>."

"Fescue plus bluegrass was best of the two-grass mixtures although it was no different in appearance than established bluegrass or bent. From a practical standpoint, however, the mixture was superior since fescue germinates and establishes more rapidly than bent or bluegrass."

"Two exceptions to the preceding generalization were a combination of bent, fescue and <u>Poa</u> trivialis and a combination of bent, fescue and bluegrass. The latter mixture was as good as the first which was better than all other three-grass mixtures."

# FLORIDA FERTILIZER STUDY

Some surprising findings were reported by Horn and Pritchett in the March issue of Florida Turf, concerning the role of potassium in turfgrass fertilization. Relatively little potassium was as good as a lot for improving Tifway bermudagrass appearance, and a single application in spring was as adequate as the same amount divided among several applications through the year. Sulphur seemed important, and potassium compounds containing sulphur were significantly more effective than those not containing sulphur.

# OHIO RESEARCH

The 1967 report on cooperative turfgrass investigations conducted through Ohio State University was recently received. Publication of the data is restricted, but members may be interested in the nature of the research going on. In one trial 20 or so bentgrasses were compared for density, percentage of weeds, and overall desirability. As would be expected the creeping bentgrasses rated somewhat high than the Colonial bentgrasses in these respects, with seeded sorts faring well. Ratings on all Colonial forms were quite close, but Highland this year had a slight edge at Columbus.

The same sort of comparison is accorded bluegrasses, with varieties selected for disease resistance naturally outperforming others. Leading the parade in Columbus with a slight margin for most factors was K-547 (new Pennstar). In the Wooster ratings leaf smut was tallied because of its increasing importance there, with Merion and Windsor exhibiting the highest incidence. Perhaps surprisingly, in the southern most part of the state, which would seem a little far south for Merion, this variety rated near the top in "overall desirability", slightly behind Pennstar.

Botanical compositions of fine fescue-bluegrass seed blend plantings were given, corresponding roughly to proportions in the seeding mixture. As might be expected, irrigation favored the bluegrass a little, lack of irrigation the fescues, although the differences were not generally significant.

Reel mowing proved slightly superior to rotary mowing, and 2 inch mowing heights definitely superior to 1 inch mowing height, so far as density, disease, and overall desirability ratings were concerned. The test varieties were Merion and Delta bluegrass. A large group of grasses for "rough use" were rated, without great differences between them. It may be of interest that Pennlawn and other fine feacues rated ahead of the tall feacue group even for "rough use".

Crabgrass control was adequate with all of the conventional pre-emergence chemicals. Mineral accumulation at two different heights was calculated for Merion Kentucky bluegrass, the study was continued on the influence of temperature and day lengths for encouraging bluegrass rhizoming and tillering.

# PHOTOS PROVIDED

At the request of T. W. Stamann, Extension Agent for Cornell University in Middletown, New York, 6 photographs were sent from which to choose 3 pictures . for newspaper stories commending bluegrass lawns.

#### SOD PRODUCERS APPROACHED

We are very grateful to membership chairman, Gordon Newton, for taking time to visit with Ben Warren, president of the newly-formed American Sod Producers Association. It has been the feeling of the executive committee that quality seed and good sod have many interests in common, and that if some support could be gained from American Sod Producers Association, Institute services could be strengthened for the benefit of both that group and the Institute.

#### RESEARCH IN TEXAS

After speaking in Omaha, Dr. Schery took advantage of being West to visit with Dr. George McBee at Texas A & M University, to discuss research being conducted there. A few of the current activities and trends may be of interest to members.

There is continuing interest in winter seeding, particularly of golf greens, with fine-textured northern grasses. This occurs throughout the eastern half of Texas north of the tropical belt near Brownsville. Dr. McBee indicates that the predominant component of winter-seeding blends seems to be <u>Poa trivalis</u>, although this is supplemented by Kentucky bluegrass and bentgrass, and occasionally fine fescue. McBee feels that a typical ratio is on the order of 6-2-2, of <u>Poa trivalis</u>, bluegrass and bentgrass respectively. Winter-seeding with fine-textured grasses gives a more gradual spring transition back to the bermuda than with ryegrass. Many of the winterseeded plots look poor this year, especially those seeded to ryegrass (which was badly damaged by Pythium). Of the fungicides tried only Pexon gave much protection.

Tests at the University indicate that overseeding of the new Tifdwarf strain of bermudagrass is no more difficult than for the (formerly) predominating Tifgreen. The Houston Country Club was Gene Tift on both green and fairway, but has just been converted to Tifdwarf on the greens by spraying with maleic hydrazide and then lifting the sod. Within four weeks new sprigings of Tifdwarf were established and nearly playable. McBee feels that Tifdwarf is at least as heavy a feeding greens grass as Tifgreen; it is susceptible to Helminthosporium disease.

Research at Texas is centering more upon physiological and biochemical facets under McBeen, than when Holt was in charge. There is elaborate apparatus for monitoring nutrients in foliage, and for tracing tagged molecules. Active projects include internal analyses of the grass plant subjected to shade, variable fertilization, and so on.

At time of visit, February 23, St. Augustine, the predominant grass of that area, was dormant from cold. One research project involved bringing sod into the greenhouse for revival, then subjecting it to various cold treatments. In many cases this has resulted in chlorotic grass, the cause for which is yet explained.

McBee is convinced that heavy autumn fertilization, important for maintaining good color late in the season, is not conducive to winter-kill. He also agrees that there is synergism for a herbicide (such as PCNB) applied on a fertilizer carrier. Dicamba and 2,4-D offer another example. Arsonate speeds up the respiration of nutsedge, making the tuber more active; only when a second and third application is made is an exhaustive stage reached that kills the weed.

# DR. BUTLER JOINS ADVISORS

After a recent appearance on the Illinois Turfgrass conference program, Dr. Schery invited Dr. J. D. Butler, Extension Turfgrass Specialist, to join the advisors of the Lawn Institute. We are pleased to have this reply from Jack, "I would certainly be honored to serve on the advisory board of The Lawn Institute as I appreciate getting the mailers which you send out periodically."

#### PUBLICITY IN NEBRASKA

A side benefit from Dr. Schery appearing on the program of the sixth annual Nebraska Turfgrass Conference, was publicity released through the University of Nebraska press to all daily newspapers in the state. The Institute's presentation "Home Lawns", seemed to meet the requirements for general reader interest better than some of the more specialized topics also covered by the conference. Photographs of Dr. Weihing, conference chairman, speaking with Dr. Schery were taken to accompany the release. Text of the release to the newspapers was simply a condensation of the resume provided by the Institute for the Proceedings of the conference. The resume, as it appears in the Proceedings, is given in the following paragraphs. We are delighted that this presentation should receive this excellent "added mileage" through the press facilities of the University of Nebraska.

"Home lawns are as varied as the people who sponsor them. But over-all the trend is to greater perfection. In only a generation relatively uncritical acceptance has changed to demand for weed-free, blemishless turf of fine-textured grasses. In the cooler quadrants of the country (map) this means primarily varieties of Kentucky bluegrass (the workhorse), Oregon fine fescues (especially for shade, and infertile, dryish soils), and bentgrasses (luxurious, close-clipped turfs where irrigation is possible). Habits of each are pretty well recognized, although there is no end to subtle differences in varietal response; while the species are widely adapted, varieties may be narrowly so.

"Thus, no matter how diligent the plant breeder, a homeowner cannot buy certain success through purchase of even the most highly recommended variety. He still must manage the grass according to its needs. The homeowner, sophisticated in recognizing varieties by name (because of lavish advertising), may be unsophisticated about sound management. He may be misled into expecting better performance than is practically obtainable, in spite of being increasingly willing to spend liberally for all sorts of products and equipment. The homeowner is willing to pay for service, too--for example, to have instant grass (sod). But elaborate equipment and fine sod are no guarantee of a spotless lawn. Pains must be taken to understand just what care it needs. As limits of the natural range for the better turfgrasses are approached (Nebraska) such practices as supplementary irrigation, timely fertilization and considerate mowing become critical.

"A relatively few practices account disproportionately in success of a lawn. Quality grass, correct fertilization (autumn especially), and reasonably high mowing are especially important. Irrigation will help during seedling stages or drought. Some weed control is de rigeur. Other practices may contribute to the lawn's sparkle, but are less fundamental. If homeowners did not more than choose good grass, fertilize and mow it intelligently, there would be more successes. Many homeowners are confused by the barrage of advice that makes it seem as if primping is equally as important as basic care. Lawns can endure minor abuse if the fundamentals are adequate; but one fundamental improperly handled can spell defeat. The home lawn is an unnaturally congested population of grass plants, subjected to extreme demands for luxuriousness. As such it is susceptible to misguided care. Like any biological situation, lawn organisms must come to terms with their environment. Understanding these terms, the homeowner can modify the environment to make it more harmonious for the grass of his choice."

Members are free to draw upon or quote from this summary if it may prove useful. No reprints have been scheduled, however.

# PHOTOS DISTRIBUTED

During the quarter there have been a number of requests from garden writers and newspaper columnists for Institute photographs, such as those noted in reprints that are distributed. Although it is fairly expensive to provide photos, we have, for goodwill reasons, tried to honor requests as much as possible. It is often feasible to utilize used prints returned from magazines, or to find substitute photos in the files of which we still have multiple copies. Nonetheless, in order to maintain this tie-of-interest with garden writers, the Institute should budget an increasing number of photographs for the fiscal year ahead. It is well worth the expense to have these photos used in prominent papers in such cities as Cincinnati, St. Louis and Denver, to which sets have recently been sent.

# INSTABILITY OF GRASS PLANTS

Etlar Nielsen, Wisconsin, reporting in the January American Journal of Botany, cites a number of instances where vegetatively propagated grass plants resulted in quite different progeny. Within the grass group it is not uncommon for two crowns derived from the same rhizomes to be different, the "sporting" due to unknown causes. Although Kentucky bluegrass is not discussed, one wonders whether this might not occur in seed producing fields. Nielsen feels that intraplant variations may help explain evolution of the grasses, noted for a high incidence of ploidy. Perhaps chromosomal variations may occur spontaneously within a plant without involving hybridization and doubling of chromosome sets.

#### ROADSIDE SEEDING

The Institute will have an excellent opportunity to present information on the suitability of fine-textured grasses for roadside seeding next October. Dr. Schery, Director, has been invited by the program chairman, Dr. George Tobey of Ohio State University, to discuss "Evaluation of Turfgrasses for Roadsides" the afternoon of Wednesday, October 9 at the 27th Ohio Short Course on Roadside Development. Members will recall that this annual short course in effect represents the national annual meeting for Roadside Landscape Architects.

#### REPRINTS AT TRADE SHOW

We are grateful to Seed Technology for offering at its booth for the San Francisco meeting of the Golf Course Superintendent's Association and sod growers, two Institute reprints. Used for handout were: "How to Get a Good Buy on Grass Seed" and "The Importance of Quality Seed".

# RESEARCH IN VIRGINIA

Houston Couch sent the Institute an interesting report on research being done by Plant Pathology and Physiology at VPI. One often tends to view turfgrass research as confined to the agronomists. Summarization of the pathologyphysiology research during 1967 required 40 pages! A few items may be of particular interest to members.

Not all fungicides were in the comparison, but Daconil led both for control of melting-out in Kentucky bluegrass and dollarspot in bentgrass. Early application of DCPA controlled goosegrass in fairways better if applied early than late, and was somewhat better than bensulide. The familiar 2-4,D combinations were confirmed as excellent for their usual purposes.

Both DCPA and bensulide controlled most <u>Poa annua</u> in dormant bermudagrass, but also repressed wintergrass overseeding (more severe on fescue than on ryegrass). All of the familiar pre-emergence chemicals for control of crabgrass were effective except balan. Tall fescue was effectively spot killed in bluegrass with Paraquat, but the chemicals did tend to repress new seedlings in the cleared spot.

There were a number of roadside tests for effectiveness of herbicides, and maleic hydrazide proved best of materials tried for inhibiting grass growth. Bensulide was inactivated in the soil by charcoal. Bermudagrass (as a weed) was better inhibited by dalapon than other chemicals. Many other tests related to control of grass weeds in nurseries, quackgrass control proving partial with dichlobenil.

# DISPERSAL OF SEEDS

de-Vlaming and Proctor, Texas, in the January American Journal of Botany, report on research in which various seeds eaten by birds can remain viable and be widely spread. Two grasses were included. It is concluded that small seeds with hard coats can very easily pass through a bird's digestive system without loosing viability, and be retained as much as several days (thus giving ample time for wide dispersal by the bird). It is speculated that bird dispersal is far more important than generally given credit, and is an important selective feature determining which kinds of plants will gain dispersal.

# SEED AFTER RIPENING

Curtis and Cantlon, in the January American Journal of Botany, review seed dormancy in a single species (Melampyrum lineare). The processes may have implications for grasses and other plants. A growth stimulate (gibberellinlike) occurred in immature seed, but disappeared as ripening progressed and was absent in dormant seeds. Respiration and chemical constitution are related to dormancy, which is sustained by inability of the embryo to hydrolize thickened endosperm cell wall.

# REPRINTS USED

An extra supply of "Select Seed Wisely" was requested by Borden Chemical Company, for use through their lawn and garden sales force. This puts the information right on the firing line.

# HELP ON WINTER-SEEDING

A letter from Paul T. Rowell, formerly with the Oregon Department of Agriculture, now retired (for the winter, to the dry climate of southern California), inquires about winter-seeding. Paul has been in touch with golf course superintendents and the College of the Desert in Palm Desert, about trials of fine fescues, Highland bentgrass and bluegrass for seeding fairways, lawns and greens. Interest has been whetted with the college horticulturists, who intend to establish some trials of fine-leaf turfgrasses for overseeding.

While it would be expensive to recopy all the reports furnished the Fine Fescue Commission some years ago, Paul was sent a number of reprints relating to winter-seeding which might furnish the basis for teaching this subject at the college, as well as offering suggestions for some trials. It was also suggested that further technical information could be found in the theses done some years ago at the University of Florida and at Mississippi State University. We are grateful to Mr. Rowell for his continuing interest in promoting fine-textured grasses for winter-seeding in the South.

# POA ANNUA KILLS EASILY

Dr. Beard, Michigan, reports on Fischer's in MS thesis at Michigan State University, concerning high temperature influence on annual bluegrass, in February Golfdom. Exposure to temperatures a little over 100 degrees F for only an hour were sufficient to kill <u>Poa annua</u> 100 per cent. A good good argument for something sturdier on the green and fairway.

# INFORMATION FOR STUDENTS

The Lawn Institute continues to receive requests for information from students attending various universities and technical schools who are studying turf management. A typical example is a letter from Vincent Monteforte, in class at the New York State University, Farmingdale, L.I. His was but one of several requests from that institute asking for informational literature, which we service mainly through mailing of reprints.

#### NEW PUBLICATION

March brought the first issue of the new "Golf Course Superintendents Reporter", for the State of Iowa. Charles Calhoun, consulting turfgrass specialist, Ames, Iowa, is editor. The Institute has been well acquainted with Mr. Calhoun through the years. Editorial policy is to provide a diversity of materials for information and discussion, and we are hopeful that from time to time the Institute releases may appear in this promising new publication.

#### GARDEN EDITOR VISITED

When on a speaking engagement to Omaha, Dr. Schery had opportunity to call upon David Sadler, Garden Editor for the Omaha World Herald, dominate newspaper of the region. Mr. Sadler inverviewed Dr. Schery for about an hour, intending to develop a story for spring usage in the Herald on "What's New in Lawns".

# CRABGRASS RESPONSE TO LIGHT QUALITY

Research in New Hampshire reported in the January Weed Science indicates that crabgrass grew best under red and white light, less well under green, yellow or blue light, although all light sources were adjusted to equal energy levels. Green and blue light caused greater seed head formation, while yellow light restricted seeding. These findings are consistent with observations that grasses in general are dense and dwarfed at high elevations (where ultraviolet penetrates well), and that crabgrass is generally less a pest there than in the lowlands.

# "POP-UP" FERTILIZER FOR LAWN?

Within the last year or so there has been considerable interest in fertilizer banded along with the seed for early-planted agricultural crops, termed "popup" fertilization. What aids early corn growth in cold soil should do equally well for turfgrass? We have long recommended feeding a new lawn amply at time of planting, but now a good deal of experimental evidence is accumulating on the agricultural front. To avoid damage fertilizers with a low salt index (not too much soluble nitrogen or potassium) are recommended, or lighter rates of the stronger types.

#### AGRONOMY FUNDAMENTALS

A special intensive course for industrial agronomists, "The Plant and Its Environment", is being offered May 6-10 by Purdue University for a limited group with advanced degrees. It is felt that demand exists for bringing industrial agronomists "up to the moment", in such matters as mineralogy, nutrient uptake, nutrient availability, soil chemistry, solar energy, photosynthesis and respiration, translocation, placement of fertilizer, plant competition, limiting factors of climate and response to environmental change. Briefs describing the individual presentations by over a dozen experts in the respective fields indicate a well-integrated program of great fundamental value.

#### STORY READIED

A story has been prepared for National Farm and Home Publications on autumn lawn renovation that would permit quick and easy bolstering with seed of fine-textured grasses. The story will be supported by color photographs taken on the grounds, and is scheduled to appear in the August issue of Better Turf and Garden.

# MOWING INFLUENCE

A study on the response of mountain grassland to clipping, reported in the Autumn 1967 issue of Ecology, may have implications for the lawn even though the species are different. Clipping more severely damaged the forbs (which would be broadleafed weeds in the lawn) than the grass, and caused a shift in favor of the grass. The grasses were most set back when clipping occurred in the period from early flowering to seed ripening. The deleterious effect from repeated clipping (in terms of total grass production) did not begin to show until the third year.

#### ANNUAL BLUEGRASS CONTROL

Neidlinger, Furtick and Goetze report in the January issue of Weed Science on success in controlling annual bluegrass selectively in bentgrass golf greens, and in Kentucky bluegrass seed fields. Bensulide at 15-30 lbs./A nearly eliminated annual bluegrass with no evident injury to Highland or Seaside bentgrass. Bensulide has proved to be one of the longer-lasting preemergence annual grass controls, but the selective kill of established annual bluegrass was unexpected. Terbacil at one-fifth lb./A gave best control of annual bluegrass in Kentucky bluegrass seed fields when applied pre-emergent. The annual bluegrass was largely controlled with little supression of the Kentucky bluegrass.

# MORE ABOUT BLUEGRASS, FINE FESCUE

Skogley and Ledeboer, of the University of Rhode Island, report upon "Evaluation of Several Kentucky Bluegrass and Red Fescue Strains Maintained as Lawn Turf Under Three Levels of Fertility", in the January-February Agronomy Journal. Eight varieties of Kentucky bluegrass and six of fine fescue were entered in the tests, running from 1962 through 1964. In general, increased fertility improved quality rating of the turf. Park, Delta and Pennstar performed relatively better at the lower fertility levels. Fine fescues were less responsive to fertilization, and the Rhode Island selection Jamestown was rated highest, Pennlawn second, at each fertility level.

#### FILM SHORTS

Modern (former distributor of the Institute film, Bluegrass Beauty) notes that there is increasing demand for very short films, perhaps only five minutes long. Bluegrass Beauty was designed to fill a 15 minute slot. The new airport theaters, for example, makes good use of shorter films for their ever-changing audience. Incidentally, the number of airport free theaters has now been increased 10, with additions at Pittsburgh and Honolulu. There is similar demand for short items for resorts, and for increasingly flexible programming in television. It is to be hoped that someday the Lawn Institute will have funds to reinstate a promotional film.

# FERTILIZING BLUEGRASS-FINE FESCUE

Skogley and King, Rhode Island, report upon "Controlled Release Nitrogen Fertilization of Turfgrass", in the January-February issue of the Agronomy Journal. Urea impregnated on wax performed best of the materials tested, although not a great deal better than urea. Natural organics and ureaform rated poorly.

# TEAR SHEETS RECEIVED

Claude Gray, Garden Editor for the Walla Walla Washington Union-Bulletin kindly sent a sample page of his Saturday, March 16 "Home Gardener's Page". About 10 column-inches of text from the spring press kit were used in his column, giving full credit to the Institute and mentioning of grasses such as Highland. Sample excerpt: "Dr. Schery recommended following de-thatching by bolster seeding with a fine-textured seed blend and by fertilization."

# MORE ON ANNUAL BLUEGRASS

Engel, Morrison and Ilnicki, Rutgers University, discuss "Preemergence Chemical Effects on Annual Bluegrass" in the February The Golf Superintendent. This is in keeping with the increasing concern about annual bluegrass as a weed, becoming more prevalent as irrigation of golf courses increases. The carefully undertaken research reported in the article is not too encouraging; anything powerful enough and persistant enough to control annual bluegrass, also presents hazards for the turfgrass. Calcium arsenate was the only of the familiar "crabgrass chemicals" that gave a high degree of control over a considerable span of years. But it must be used at heavy rates (over 400 lbs./A), and was generally the most detrimental of all chemicals to the quality of the turfgrass. Something of a compromise was bensulide (Betasan, Presan), often recommended for annual bluegrass control. This provided moderate annual bluegrass control, and generally less injury to the turfgrass than arsenate (but there was some deterioration of turf quality). Although the effectiveness of the bensulide did not run out so quickly as with other familiar crabgrass preventers, it nonetheless had to be replenished from time to time, and judging the exact replacement rate could prove touchy. This research suggests that so far at least there is no chemical that enables you to eat your cake and have it too.

# FESCUE PHYSIOLOGY

Virginia researchers reporting in the November-December 1967 Crops Science, discuss clipping and nitrogen fertilization treatments of tall fescue. The concern is mainly for pasture, but principles are the same also for turfgrass (and by implication fine-textured grasses with a similar growth cycle). High nitrogen thinned stands of spring grass that was not clipped, and scalping caused considerable kill. We see this same sort of thing with lawns of lushly growing bluegrass. Also like bluegrass, frequent defoliation (mowing) encouraged tillering; nitrogen encouraged tillering late in year. The report is mainly of interest for theory as to why heavily fertilized turf is frequently lost when mowed suddenly in spring.

#### McCALLS GARDEN BOOK

To judge from an announcement in Home Garden Magazine, McCalls Garden Book (organized by Gretchen Harshbarger) has finally made an appearance. The announcement reads:

"Here is a general gardening book that is not only complete in coverage but attractive as well. Every subject of interest to gardeners and homeowners is included, with excellent drawings by John Burton Brimer and many photographs to supplement the tcxt. Several planting charts for quick reference are very useful.

"The chapter on pests and diseases has been written by Dr. Cynthia Westcott, and the lawn and soil sections by Dr. Robert Schery, both experts in their fields. Indexed."

#### COLONIAL BENTGRASS REPORT

Dudeck and Duich, reporting in the November-December 1967 Crop Science, discuss selections of Colonial bentgrass as they performed at Pennsylvania State University. They conclude that inbreeding is feasible with the species, and might lead to lines having useful attributes or potentiality for selection and crossing even though there was some loss of vigor as the degree of inbreeding increased.

#### ABOUT BENTGRASS

The short item "The Virtues of Bentgrass" appeared in the March 8 Seed World. This was a story reporting on a test in Ohio that"indicates that a Highland bentgrass blend best protected soil on a steep slope at a highway cloverleaf."

#### INTERESTING PROJECT

Among "curious communications", the following was received in January:

"Dear Dr. Schery:

"Dr. Jack McCormick of the University of Pennsylvania and I are presently working on the question of why people mow grass. That is, what purpose does mowing serve? What are the origins of mowers and mowing? What, if any, psychological motivation is there for mowing?

"I would appreciate your aid in providing us with, or directing us to, any pertinent information on this subject.

"Thank you!"

# INFORMATION POWERHOUSE

Were the Institute able to provide the information requested in the following letter from Canada, a fortune would await us:

"I want to know the different steps for beginning, financing, organizing, planning and commercializing of a sod farm.

"I should have a complete documentation about associations and centers of research about sod farms, also books, reviews and periodicals of this field.

"In advance, I thank you very much."

# FAST ROOT GROWTH

Studies by Dr. A. F. Wiese in Texas, reported in the January issue of Weed Science, show remarkable elongation of roots. Root elongation in cocklebur weed was better than 2 inches per day, with crabgrass not very much less. In all cases roots grew faster than the tops increased in height.

#### IN MASSACHUSETTS TURFGRASS BULLETIN

Pickup of an excerpt from a story done for Better Turf and Garden, was noted in the spring issue of the Massachusetts Turf and Lawn Grass Council Turf Bulletin. It was entitled "New Bluegrasses Getting Attention". The opening sentence sets the tone:

"Kentucky Bluegrass is perhaps the best of all sod forming grasses -attractively soft and of elegant color and texture, easily mowed, hardy and strongly recuperative."

Several of the newer varieties are cited. The commercial fine fescues are named by variety, finalizing a paragraph that begins:

"Fine or Red Fescues are very attractive, hardy, erect-growing species similar to bluegrass, -- last on infertile soil with minimum care and well suited for dry shade."

As to bentgrasses, the article states:

"The best lawn varieties from seed are Astoria, Highland and Penncross."

The story concludes;

"Having one or more fine fescues in a seed blend gives you a candidate grass suitable for difficult spots under trees."

#### LITERATURE FOR NEW YORK MEETING

The Westchester County Department of Parks, Recreation and Conservation held a series of programs on Home Grounds Beautification during February and March. Paul Frese, Naturalist for the Meyer Arboretum, wrote the Institute asking if informational literature might be supplied attendees. Several hundred reprints were sent to Paul, for handing out in conjunction with the session "New Guidelines for the Well-landscaped Home". This proved opportunity to be influential in the prime garden market area of the nation. Cooperating with the park department were the county extension service, the Recreation and Park Society and the Southeastern New York Nurserymen's Association

# PRESS KIT USER

A tear sheet from the March 15 Harrisburg, Pennsylvania Evening News (and the Patriot) was kindly sent in by Herbert C. Campbell, Gardening Editor. Approximately 24 column inches of space were devoted to the story, "Spring is Perfect Time to Start Seeding Lawn", composed from piecing together various items of the Institute Spring Press Kit. There were numerous mentions of Kentucky bluegrass, fine fescue and Highland bentgrass.

# REPRINTS DISTRIBUTED

Borden Chemical Company requested "Weed Turf With Fertilizer", Seeded Fairways", Bluegrass and Shade Grasses" Institute reprints, for distribution to Lawn and Garden personnel.

#### INSTITUTE IN PAPER

A special gardening insert in the March 15 St. Louis Post Dispatch carried 3 photos taken on the Institute grounds. Captions furnished were run with the photos, viz.:

"'NO TIME FOR ALARM -- The modern fine-textured lawn can be mowed quickly and pleasurably with today's modern equipment. Don't be alarmed if Kentucky bluegrass shows 'gray hair' temporarily in late spring. That's the normal time for it to produce seed stalks, --"

"TALL, TOUGH NUISANCE -- One of the biggest nuisances in an attractive, fine-textured turf is volunteer tall fescue, a coarse and clumpy species --, -. When selecting seed mixtures check that the fescue content is fine fescue (varieties such as Chewings and Pennlawn). -----"

"PATCH-UP TIME -- Where a winter blemish shows in a bluegrass lawn, the soil can be loosened and a good seed blend used to reestablish good cover ahead of weed growth."

#### SEAL MENTIONED

We are pleased to see Borden Chemical Company emphasizing the Lawn Institute Seal of Approval in its "Turf and Garden Topics", viz. "It is still not too late to order your -- seed -- certified by the Lawn Institute and the International Crop Improvement Association."

#### REPRINTS FOR CONFERENCE

When discussion "Home Lawns" at the Nebraska Turfgrass Conference, Dr. Schery had opportunity to distribute two Institute reprints to the audience, "Select Seed Wisely" and "Common Sense Lawn Care".

#### "BLUEGRASS STANDS GUARD"

This is the title of the Bulletin Board Suggestion story in the March 8 Seed World, byline credit to the Institute.

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# WHAT THEY ARE SAYING:

"Received your 1968 spring brochure late last week. I had consulted the 1967 one for the enclosed advice. I always enjoy receiving your releases and quote from them fairly extensively in my weekly garden column. Claude M. Gray

Washington

" -- as chairman of the National Beautification Committee I want to personally thank you for this material. -- the newspaper supplement that you worked on for the Beautification Committee."

> John F. Schiffman Hygrade Seed Company

"Thanks for all your good help."

Doc Abraham "The Green Thumb"

#### WHAT THEY ARE SAYING:

"I would like to have my name placed on your mailing list. I am mainly interested in the 1968 spring lawn packet."

Theodore W. Stamen, Extension Agent Middletown, New York

"Again let me thank you very much for coming to Illinois -- the comments which I had concerning the conference were all good, and we were very pleased to have had you with us."

J. D. Butler University of Illinois

"'Lest Hunger Haunt Your Lawn' -- A very good article, excellent for awakening interest of newer fertilizer people --" Bill Daniel Purdue University

"One of the highlights of the recent Sixth Annual Nebraska Turfgrass Conference was the success of the 'Home Lawn' section. Your presence was a major part in the success of that section."

Dr. John L. Weihing University of Nebraska

"I would greatly appreciate having a reprint of your article, 'The Migration of a Plant', published in Natural History Magazine. Thanking you in advance for your help."

> Dr. T. H. Taylor University of Kentucky

"Thank you very much for agreeing to present a paper at the 27th Ohio Roadside Shortcourse. We look forward to hearing results of your current trials."

> Dr. George B. Tobey, Jr. Ohio State University

"'Lest Hunger Haunt Your Lawn' -- This is a very interesting article and we have passed this information on to our Deere and Company Advertising Department, also, to our Horicon Sales Manager."

> J. W. Raber John Deere Company

"On behalf of the Official Yard and Garden Chemical Clinic, I would like to thank you -- We had many fine comments concerning your presentation. I enjoyed visiting during the afternoon and gained many ideas from you which I will be able to use in the programs we discussed."

> Clark E. Jenson, Area Extension Specialist Omaha, Nebraska

"I wish to compliment you on the very excellent spring kit of releases that came in a few days ago. You make this mowing a lawn sound so interesting that I am sure most wives will be trying to take the job away from their husbands. I found all the releases well done and very interesting.

> G. O. Newton Northrup, King and Company