BETTER LAWN -- HARVESTS

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BETTER LAWN & TURF INSTITUTE

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INDEX

QUARTERLY RESUME

During the quarter the following printed materials were prepared, in press, or reprinted.

Changing Times	"Still Time For A Better Lawn"
Countryside Press	"Better Lawns"
Flower And Garden	"Lawn Seeding For All Seasons"
Horticulture	"The Blooming Multiflora"
Horticulture	"What Is The Grass"
House And Garden	"Grass Roots Advice About Lawns"
Massachusetts Turf Bulletin	"Lawn Fertilization"
Readers Digest	Lawn Section for garden book
Weeds, Trees and Turf	"Curious About Cultivars"
Press Kits	"Lawns And Gardens", and Institute

SEASONAL TV APPEARANCE

On March 30 Dr. Schery gave his usual seasonal presentation on lawns and lawn care, over the "Morning Exchange" hour on WEWS-TV, in Cleveland. As has been noted before, this show outdraws all others in its time slot, including national coverage. Also, as usual, the phone lines were jammed (the program answers inquiries that are telephoned-in, after a brief introductory presentation by Dr. Schery); this led executive producer Nancy Lenzen to comment, "We could have gone on for 3 days".

Again, as usual, the station was most cordial in "advertising" the Institute and its literature, which was featured several times in close-ups on camera. As in the past reprints were offered to viewers sending in a self-addressed, stamped envelope. In the past this has resulted in nearly 300 requests being received by the Marysville office. This year WEWS asked if it would be alright if they received the inquiries, and forward them to Marysville; in the past they have been harassed by scores of telephone calls wanting to verify the Marysville address, difficult to note completely in the brief time "on camera". The program draws response from all over northern Ohio, into Michigan, and occasionally Pennsylvania and West Virginia.

HOUSE AND GARDEN ADVISES

Marybeth Weston kindly sent tear sheets from the April issue of House and Garden magazine, reflecting seasonal lawn advice adopted in part from Institute materials. The final paragraph reads: "One of the best books on lawns is Lawn Keeping, by Robert W. Schery - - - Dr. Schery gives complete directions for establishing and maintaining turf in all parts of the country, and illustrates his points with diagrams, line drawings, and black-and-white photographs."

STORY EMPHASIZES BROADENED SEEDING SEASON

The Institute's story entitled "Lawn Seeding For All Seasons" appeared in the April issue of Flower And Garden Magazine. With modern aids, and particularly the new turf-type perennial ryegrasses, it is now possible to establish an acceptable turf at almost any time of year. A listing of VRB accepted varieties appeared as a boxed insert, in an addendum to the story. The story concludes, " - - the modern perennial ryegrasses do wonders for increasing lawn seeding flexibility. Mixtures can be sown almost any season nowadays with a good chance of success."

GRASS STORY APPEARS

The March 1977 issue of Horticulture carried the Institute's story "What Is The Grass?". The commonly used species are all illustrated and an "appendix" entitled "Culture and Notes" lists the prominent cultivars, including all of those on the VRB list for northern grasses. Characteristics and behavior of each species are described.

CONSUMER SURVIVAL KIT ON LAWN CARE

The Maryland Center for Public Broadcasting informed Dr. Schery that the Consumer Survival Kit on lawn care would be aired the week of March 6. It was seen in central Ohio in prime time on Sunday March 6. The presentation, although still not distinguishing well between trivial and important aspects of lawn care, had accepted Dr. Schery's advice to turn away from so much negativism as was in their original script. The "choreography" was excellent, with first-rate actors portraying convincingly various episodes brought up by the MC (who also did a top-notch job). The "Survival Kit" is offered by the Maryland Center for Public Broadcasting, Owings Mills, Maryland 21117, for $1 to cover cost of assembling and mailing.

CHANGING TIMES STORY

Margery Crane, Changing Times Magazine, kindly sent a copy of her story developed from Institute literature, "Still Time To Have A Better Lawn", appearing in the March issue. Ms. Crane writes, "As you will see, it is based mainly on the material you sent me and I'm crediting you and also recommending your book.".

NATIONAL ASSOCIATION OF REALTORS RELEASE

Dennis Brown, of the National News Media Relations, writing a column of "Real Estate Facts" for the National Associations of Realtors, sent copies to the Institute. Mr. Brown states, "columns nos. 137 and 138 are based entirely on the materials you were so kind to provide me this past fall.". The columns have been sent to nearly 2,000 local boards and state associations for distribution to local newspapers. Widespread use of the articles is expected.

We find Mr. Brown an excellent adaptor of our informational materials, with an understanding of the subject often not apparent in some writers. Moreover, he kindly gives the Institute credit throughout the presentations, - viz. "Dr. Robert W. Schery, Director of the Lawn Institute, explains it, - - - ". General appraisal of ecological fundamentals is given in column 137 (such things as "why mixtures of lawnseed"), while column 138 develops specific instructions on creating and sowing a suitable seedbed.

STORY SCHEDULED

Editor Clough informs us that the Institute's story "Quality Seed" is scheduled for publication in the July issue of Grounds Maintenance magazine. This item emphasizes that more than with most industries seed production and marketing take special pains to assure quality of the product.

HOUSE AND GARDEN REQUEST

Marybeth Weston, House and Garden Magazine, telephoned the Institute early in the year seeking "the latest" background information for a review of lawns and their tending for an early spring issue. A number of reprints and suggestions were offered, especially about new lawngrasses, for this prestigious magazine.

READERS'S DIGEST PROOF CORRECTED

Proof of the lawn section for the forthcoming Reader's Digest gardening book was received in late January. As seems always the case, editorial rewrites are undertaken by people unfamiliar with lawns and technical terms, so that the final proof reflects considerable "busy work" that in turn has to be recorrected for technical accuracy. We are pleased that the editors retained most of the cultivar mentions ascribed to the 1976 Lawn Institute Variety Review Board approvals.

REQUEST FROM FLORIDA

The Florida Cooperative Extension Service requested from the Institute in January, display material that may be used for the "Central Florida Fair" the later part of February. A number of photos, reprints and informational items were offered Mr. MacCubbin for display.

BOOKLET PUBLISHED

Countryside Books has published Better Lawns, a 48-page booklet written by Dr. Schery. The booklet is thoroughly illustrated, including a 14 page center section in full color (including many scenes from the Institute grounds). Members will be pleased with the attention given new lawngrasses. Variety Review Board listings for 1976 are given for Kentucky bluegrass, perennial ryegrass, fine fescues and bentgrass. The Lawn Institute is referred to several times. Dr. Schery withheld author identification not knowing whether the booklet would be utilized commercially (and thus carry implied endorsement). As matters worked out these fears were groundless; the text is honestly and carefully edited. No price is indicated on the cover, but the booklet is intended for reading rack sale, and should be economical.

SUPPLEMENT APPEARS

The cooperative Lawns and Gardens spring "Supplement" (sponsored jointly with the American Assoc. of Nurserymen, The Fertilizer Institute, and the National Swimming Pool Institute) appeared in mid-February. The folio-size issue prepared by Pflaum Assoc. contained 10 pages (one side only). Twenty one illustrations were included, 7 of them from the Institute. Text space was about equally shared by all participants. Lawns received special emphasis, since, in addition to the Institute's 100% attention, The Fertilizer Institute devoted considerable attention to lawns, and at least one item from the American Assoc. of Nurserymen was about lawns.

CANADIAN SOD GROWERS ASSOCIATION

Dr. Schery, at the invitation of trustee Norman Rothwell, addressed the Nursery Sod Growers Association of Ontario on January 19. An audience of about 70 attended the 1 1/2 hour presentation that included colored slides as a wind-up. The presentation was entitled "New Turfgrasses", and "Trends in Turfgrasses and Usage", on the program, with a question-answer period to follow.

Dr. Schery reviewed the historical development of interest in fine turf cultivars, in which Merion played a leading role. He noted characteristics being sought in a new cultivar today, selections now being finely honed in breeding centers (such as Rutgers) where full attention has been accorded turfgrass. Changing emphasis seems inevitable, in which restricted fertility, less lavish attention, and durability under natural conditions will play a greater role.

The heyday of plastic grass is probably past, but that of lawn service only beginning to peak. With the new small hydraulic seeders there may be increasing attention to "growing sod" on the homeowner's grounds, and opportunities there are still "up-for-grabs". Advantages of minor percentages of turf-type perennial ryegrasses in sod was reviewed, as were the advantages and disadvantages of blends and mixtures, and the discrepancies (on a seed count basis) using cultivars that vary widely in seed size.

RADIO PRESENTATIONS TAPED

When in Toronto for a presentation to the Nursery Sod Growers Association of Ontario, Dr. Schery was invited by John Bradshaw, a well known horticulturist and a radio columnists with station CFRB (Standard Broadcasting Corporation Limited, Ltd.) to tape a couple of programs for subsequent presentation on Saturday morning radio. Bradshaw is said to have the largest farm-oriented listening audience in Canada. The taped sessions were of question (Bradshaw)-answer (Schery) format, and involved for the most part a "what's new in the turfgrass field" stance. One of the most significant advances, of course, is development of the wealth of new special cultivars for fine turf.

NEW YORK BANK CHECKS INDUSTRY

We are pleased to have been of some help to Carolyn Johns, of Irving Trust of New York, who sought information about the lawnseed industry in a lengthy telephone interview. One of the bank's executives was seeking background information about the lawnseed industry, its total production, and the ways in which it operates. Literature was sent Ms. Johns, which should help in publicizing the creditable way in which the lawnseed industry operates.

EVIDENCE OF PK USE

Since it is not feasible for a clipping service to cover our Press Kits, we rely upon indirect evidence, such as response to the offer of mailing reprints if a self-addressed stamped envelope is received. Such requests have been steady through early spring.

Other evidence comes from garden columnists, such as this from K.J. Smith of the London Free Press, Ontario; "We are planning to use some of the material you kindly sent - - the first Thursday in May - - A picture or two - - would be appreciated".

REPRINTS CONTINUE TO FIND USE IN EDUCATION

We have been encouraged this winter by the numerous requests received from schools wanting Institute reprints for classroom usage. Typical is a response from Greg Florence, Vacational Agricultural Dept., Cumberland High School, Cumberland, Ky. Mr. Florence writes, "We are presently building our Horticulture Dept. - - I have 69 students interested in a variety of topics, including homelawn care - - please send leaflets about lawns so that we may use them in class - - - ."

UNIVERSITY OF HAWAII

Reference librarian, Mrs. Junko Nowaki, University of Hawaii (Hilo) writes, "We would appreciate a few dozen of the more recent reprints you have available - - we will be placing an order very shortly for Lawn Keeping." Even if climatically a bit off base from our usual interest, it is noteworthy that Institute reprints are wanted at the University of Hawaii.

COLLEGE TEACHING ENCOURAGED

Allen Wilson telephoned the Institute from California, asking for assistance in organizing a demonstration and teaching program being initiated at Rick's College in Rexburg, Idaho. He was provided information, sample reprints, and a listing of 1 lb. seed samples available through the Institute. It is his intention to establish demonstration plantings, for assistance in the teaching program (which will be mostly on a vocational level). Possibly he will utilize Lawn Keeping as a text and reference.

OFF-BEAT STORY PREPARED

Lawngrasses are mentioned only occasionally in a story prepared for Horticulture Magazine, entitled "The Blooming Multiflora". Relationship with editors are improved by once in a while expanding beyond the standard lawn theme.

GOOD GOLF PUBLICITY

The November-December Golf Business carried an interesting story, "Mountain Course Greens Up Quickly - - ", about the new Broadmoor Golf Courses near Colorado Springs. A number of lawngrass cultivars were mentioned specifically, presumably included in the plans upon recommendation of Colorado State University. The following mentions were made:

> " - - greens seeded entirely to Emerald creeping bentgrass [with explanation of Emerald's pedigree] - -"
> "Clark elected to put down Baron bluegrass sod - - to prevent bluegrass seedling from washing into - - Emerald bent greens"
> "Fairways - - seeded to a mixture of 20% Pennfine ryegrass plus Baron Kentucky, Nugget, Fylking and Adelphi bluegrasses."
> "Thanks to Pennfine and the four bluegrasses, - - a good ground cover was achieved within two weeks - -".

It's nice to see individual cultivars credited, and to hear of details about golf course construction.

WEST GERMANY REQUEST

"Lawn Ecology" reprints were requested by the University of Gottingen, West Germany, and immediately dispatched.

RULING ON GRASS MOWING

The following was noted in BioScience, Vol. 26, No. 10: "Now you may let the grass in your garden grow, despite local ordinances to the contrary. At least if you live in Wisconsin you can, for a circuit judge in New Berlin has ruled that it is unconstitutional for a town to dictate the length of grass and weeds on private property. Wildlife Management Institute reported that the matter went to court when the town attempted to prosecute wildlife biologist Donald Hagar for letting the area on his property become a natural habitat for wildlife and thereby violating the law that limits the length of grass and weeds to 30 cm.

NATIONAL TURF CLINIC AND TRADESHOW ANNOUNCED

Park Maintenance magazine is sponsoring a national "Turf Management Clinic and Tradeshow" in Chicago, late July. The advance publicity states that the sessions will be the first not oriented to golf superintendents, but will be designed more for parks and professionally cared-for grounds. All phases of turf management are to be covered.

EXAMPLES FOR AUSTRALIA

David Aldous, an Australian completing his PhD work at Michigan State University, writes, "Would it be possible to receive some back issues of the Lawn Institute's work - - - I feel these would benefit my program when I return home". Samples of various releases were sent Mr. Aldous.

UNIVERSITY OF MISSOURI REQUESTS

Max Allison, University of Missouri requested information from the Lawn Institute that would be helpful in developing programs for the homeowner. Sample reprints were sent, offering additional supplies if wanted. Twenty five additional reprints were later sent upon request.

INSTITUTE APPRECIATION

"On behalf of the members of the Nursery Sod Growers Association of Ontario, I would like to thank you for being our guest speaker on Wednesday, January 19th in Toronto. Your presentation was most informative and held the interest of all those present." - - - Barbara Tweedle, Executive Secretary.

COURTESY OF CHANGING TIMES

Margery Crane, associate editor of Changing Times (the Kiplinger Magazine) sent copies of the March and April issues which included items relating to lawns. The March issue cited the Institute, and listed all VRB cultivars; "Here are some useful cultivars cited by the Lawn Institute's Review Board" [varieties named].

APPRECIATION FROM ROLLINS

Floyd Franklin, Rollins Lawn Care, Atlanta, writes, "Your letter - - - is certainly appreciated, and your kind offer to assist our training program, - -" This was with respect to whether our materials might be distributed for helping train new employees in the lawn service work. Skip Skaptason of P.B.I. Gordon had recommended the Institute. Mr. Franklin adds, "We have ordered your book, - -. Using it as a textbook is a distinct possibility."

TECHNICAL SECTION

ROADSIDE SEEDING RECOMMENDATIONS

Dr. R. C. Wakefield reports in the University of Rhode Island "Turfgrass Research Review", Vol. II, No. 1, on Turfgrass Seed Mixtures for Highways. Fine fescues were found to be especially important, establishing and enduring better on the dry, poor soil habitat common along Rhode Island roadsides. Colonial bentgrass did well, too, but bluegrass did not establish or persist adequately unless topsoil was present. Perennial ryegrass was overly competitive at planting, and did not endure well under stringent conditions. Birdsfoot trefoil was helpful.

For mowed areas Wakefield recommends 75% fine fescue, 15% bluegrass, 5% colonial bentgrass and 5% perennial ryegrass, the mixtures sown at 100 lbs/A. For unmowed or infrequently mowed slopes the recommendation drops the bluegrass, but includes 15% birdsfoot trefoil. Seedbed fertilization is recommended at planting time, since little or no follow-up fertilization is practiced. No less than 30% of the nitrogen in the fertilizer should be "gradual-release".

ALARM SOUNDED ABOUT ORNAMENTAL HORTICULTURE

In a lead "editorial" of the February HortScience, Dr. DeHertogh of Michigan State University voiced alarm about the appreciation and sponsorship of ornamental horticulture. With worldwide need for food, he feels food production will be supported, while ornamental horticulture, always a stepchild, may suffer even more from restricted budgets. DeHertogh suggests that concerted efforts should be made to demonstrate that esthetic aspects of horticulture are just as important to mankind's well-being as are the more "practical" matters such as food production. The therapeutic value of lawns and gardens, and their environmental benefits, are points worth emphasizing. He feels that there is no good reason why floriculture and ornamental horticulture should have to take a back seat to such fields as pomology and vegetables.

FERTILIZER NITROGEN HARMFUL ?

Reviews in Science (February 18, March 25) examine the question of catalytic destruction of the ozone layer by oxides of nitrogen. Farmers (and lawn custodians) introduce much more nitrogen oxides than do high-flying aircraft, which long have been condemned for destructive effects upon the protective ozone layer in the upper atmosphere. Will the next proscription be against fertilizer (we've witnessed many against pesticides, and lately even against such household standbys as saccharin)? Proliferating mankind and technology certainly seem to be upsetting natural balances.

NEW NATURAL GROWTH REGULATOR

In recent years many growth-controlling substances have been found in natural vegetation, such as allelopathic substances repressing seed germination. A stimulative growth regulator has now been recovered from alfalfa, called triacontanol. Sprays of the compound onto cereals and tomatoes have increased growth, under a wide range of concentrations. A preliminary report by Michigan State researchers appeared in the March 25 issue of Science.

GROWTH RETARDANTS ON BERMUDAGRASS

Oklahoma researchers report on "Chemical Retardation of Bermudagrass Turf" in the Nov.-Dec. 1976 Agronomy Journal. While optimum conditions and rates produced significant retardation, on many occasions and under varying conditions grass injury, failure, or erratic results occurred.

WINTER ANNUALS ADAPT WELL

A study at the University of Illinois, reported in the autumn 1976 Ecology, indicates that winter annuals (often weeds in lawns) are especially well adapted for "getting the jump" on spring-summer plant growth. Photosynthetic efficiency drops from a 25° C. "best" average in warm weather, to around 12° C. during winter. Rosette leaf growth captures heat, such that temperatures range up to 10° C. above air temperature; photosynthetic response is almost instantaneous in winter. No wonder so many of the cresses and composites are so hard to squeeze out of the lawn, and are especially troublesome under low temperatures (when 2,4-D is not very efficient)!

1977 CORNELL RECOMMENDATIONS FOR TURFGRASS

The annual Cornell recommendations are widely followed as an authoritative source of information for caring for lawns. The 1977 "Recommendations" have just appeared. Most of the information is standard, with autumn lawn seeding suggested. One couldn't quarrel with the recommendation of 55% or more bluegrass, 10-20% perennial ryegrass, the remainder fine fescue, for sunny areas (the fescue proportion increased for shade). Named varieties are listed for the turfgrass species, but are not contrasted other than for a partial listing under "disease control" (for resistance to particular diseases).

No new herbicides are listed, but a section is included on nematode control this year. Disease control is handily covered, with a listing of diseases, and a code signifying which of 5 classes of fungicide would be appropriate (plus the aforementioned listing of bluegrass varieties resistant to the particular disease). The text cautions not to rely upon fungicides, but to give thought towards planting resistant varieties and managing them properly. Insect control recommendations are standard, recommending principally the three readily available, broad-spectrum insecticides (diazinon, chlorpyrifos, and carbaryl).

WEIBULLS TECHNICAL REPORT

We are always pleased to receive "Gräs-Tips", from Weibulls, Landskrona, Sweden. The publication is professionally done, by authors having first hand familiarity with the subject. The December 1976 issue carrys on its cover page a picture of the athletic field, which I seem to remember visiting on the First International Turfgrass tour. Its "climate" is controlled by underground heating-watering, with a mechanical device to automatically spread a tarpaulin over the surface when needed. The write-ups are in Swedish, but with English summaries.

The lead story deals with heated athletic fields. Since 1964 ten such fields have been established in Sweden. They are not without troubles. When fine-textured soil, was used compaction resulted; mixtures of peat and sand were better, but even this experienced build up of phosphorus and humidity which encourages Poa annua, demanding skilled maintenance. There is some question whether the expense of heating will be practical under current fuel conditions.

The second story investigates red thread disease (Corticium fuciforme) in Sweden. The disease is judged not to be a serious problem. A third story talks of small row tests and "miniplots", suggested for advanced information on new cultivars. Seeds planted in a row permit measuring lateral spread easily. The miniplots (50 x 50 cm.) can be started on hardboard in the greenhouse, and then be set in the field to be judged as would be outdoor plots.

Con't on page 9

WEIBULLS TECHNICAL REPORT - CON'T

Tests on sowing roadsides in winter proved practical, although the need for fertilization overshadowed timing of seeding. In general fertilization accompanying seeding was most satisfactory. The idea is suggested for land reclamation of all types. Another item reviews the new "turf-type" perennial ryegrasses. Compared to older common types they are quite superior, both in general attractiveness and in shoot density.

Subsoil irrigation of turf is in some ways satisfactory, some ways difficult. Soil with good water absorption is needed to supply adequate fertility (fertilizer is added to irrigation water), but such situations often result in volunteer bentgrass (undesirable for sportsturf). All things considered, a mixture of sand, sewage sludge, and peat proved reasonably satisfactory.

Comments are offered on the first field established in Sweden of artificial turf. The author cautions that a longer period of observation is needed before passing judgement. Some Fusarium roseum has been observed in Sweden, but it is not clear whether it causes primary damage or whether the fungus is simply picked up in innoculae. Recent weather has been "unusual", and may have spurred excessive development of the fungus.

MOTH CONTROL FOR NUTSEDGE

Investigations at the Stoneville, Mississippi experiment station showed that moths of the genus Bactra are often effective in setting back nutsedge rather severely, without damage to other vegetation. Such moths have been introduced into Hawaii, but not released on the mainland or in Australia (where also tested). Although this investigation concerned itself with nutsedge competition in vegetable crops, a natural control reducing competitiveness of nutsedge in lawns could be quite helpful. The research is reported in the January issue of Weed Science.

THIRD INTERNATIONAL TURFGRASS CONFERENCE

Plans for the Third International Turfgrass Conference, to be held in Munich, Germany, around mid-July, have been firmed by a professional travel agency in Frankfort. The Institute has been accepted for a presentation by Dr. Schery, on the history of the development of new cultivars in America. The American Society of Agronomy, with financial help from several sources, will publish a full proceedings of this conference (there will be time limits on the verbal presentations, which can be expanded upon in the printed version).

Enthusiasm for the conference seems to be running high, and it has been necessary to create divided sections on the preliminary tours (at which universities and various test grounds will be visited) just prior to the formal sessions in Munich. The "first" tour will try to accommodate visitors from overseas, the later one European residents. A second brief tour will follow the conference in Munich, investigating turfgrass conditions in Switzerland and France. All told the teaching tours and conference run from July 3 to July 23.

MISSOURI TURFGRASS CONFERENCE

We have from Dr. Dunn a copy of the "Proceedings of the 16th Annual Missouri Lawn and Turf Conference". A resume may be of interest.

Dr. Butler, Colorado, opened with a general review of pest control problems, leaning to an ecological approach (using pesticides only for specific purposes, where cultural and other "natural" controls cannot prevail). In a second presentation he considered the future for herbicides, first tracing their recent history. Butler concludes that search for new herbicides will continue (even though many are nearly 100% effective for particular purposes now), and that their total environmental influence will receive increasing attention. He expects herbicides to become more biodegradable, perhaps even intentionally inactivatable. Biological controls may supercede many chemicals. More sophisicated application techniques (and effectively applied products) will surely come, an area of considerable opportunity.

Dr. Couch, of Virginia provided in depth review of systemic fungicides. Uncertainties arise because there are interactions with fertility, mowing height, weather, grass variety, internal influences, etc. Sometimes systemic fungicides "release" other diseases not theretofore a problem (e.g. Helminthosporium leafspot "aroused" by benomyl treatment). Some of the disease organisms are building resistance to the pesticides. Definite possibilities for phytotoxicity have been observed with most of the systemics (Kentucky bluegrass is more prone to injury than bentgrass, and bentgrass than ryegrass; Merion was injured more than common bluegrass, Highland than--, Penncross, Manhattan than Pennfine).

In field research in Virginia the systemics have been helpful in controlling dollarspot if used at low rates for extended periods; also Fusarium blight, powdery mildew, striped smut, and Rhizoctonia brownpatch. Couch cautions not to increase rates or frequency of application if the fungicide seems somewhat ineffective; highly undesirable side effects might occur.

In a second presentation Couch cautions about careful diagnosis. He noted that some bluegrasses are especially sensitive to a disease (such as leafspot) when generously fertilized, while other cultivars show no such variability (Park bluegrass, for example resists leafspot under low nitrogen but is the most susceptible of all under high nitrogen). Couch names Anheuser, Belturf and Pennstar among the more stable bluegrasses, Delta; Fylking and Newport intermediate; Park and Kennblue as very unstable. Strangely, low mowed bluegrass proved less susceptible to disease than tall-mowed turf, no matter the cultivar. With adequate nitrogen rust was fairly easily controlled on ryegrass, but under low nitrogen quite difficult (just the opposite to the case of leafspot on Park bluegrass).

Other presentations included the now well worked-over review of Ataenius beetle, by Dr. Niemczyk, Ohio for which no good insecticidal control is had (but a CIBA-Geigy experimental is promising). Today's insecticides have a short residual life in the soil, so getting the material into the ground (as through adequate spray solution, or watering-in afterwards) is mandatory; infiltration is often blocked by thatch, or the thatch selectively absorbs the insecticide.

Dr. Thomas, Missouri, reviewed the complications resulting from chlordane unavailability, while Frederiksen, St. Louis, criticized federal pesticide regulations. Dale Kern spoke about seed quality, and Dr. Dunn discussed using zoysia (and perhaps bermudagrass) for the transition zone. Interestingly, Dunn advises "Overseed on slopes with one of the new perennial ryegrass varieties to hold soil until zoysia has developed.", a point worth recommending for seed sales south of the limit of adaptation for cool season grasses.