

BETTER LAWN - - HARVESTS

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NEW BOARD, OFFICERS, ELECTED AT DALLAS

The Lawn Institute's annual meeting was held in Dallas on June 29, the summary for which follows as a separate item. President Rothwell was gratified by a full and enthusiastic attendance, which executed the necessary business with dispatch.

Re-elected as officers for the coming year were:

Norman Rothwell, N. M. Rothwell Seeds, President
Robert Peterson, E. F. Burlingham & Sons, Vice President
Robert Russell, J & L Adikes, Inc., Secretary-Treasurer

Elected to the Board of Trustees for the coming year were:

Gil Barber	Southern States Co-Op
Bob Buker	F.F.R.
Joe Butwin	Stanford Seed Co.
Jim Carnes	International Seeds, Inc.
Gabe Eros	OSECO, Inc.
Denny Taylor	Highland Bentgrass Commission
Jay Glatt	Turf-Seeds, Inc.
Bill Hill	George W. Hill & Company
Doyle Jacklin	Jacklin Seed Company
Drew Kinder	Whitney-Dickinson
Ben Klugman	Twin City Seed Company
Peter Loft	Loft's Seed Company
Ed Mangelsdorf	Mangelsdorf Seed Company
Cliff Matilla	Merion Bluegrass Association
Howard Schuler	Northrup King & Company
Bob Wetzal	Wetzal Seed Company
Kent Wiley	Pickseed West, Inc.
John Zajac	Garfield-Williamson, Inc.
Scott Paterson	Peterson Forage, Pioneer

RESUME OF THE 1982 ANNUAL MEETING OF THE LAWN INSTITUTE

President Rothwell opened by expressing great pleasure with Dr. Eliot Roberts' acceptance of the Directorship, succeeding Dr. Robert Schery. He commended the Search Committee, chaired by Howard Schuler, for its diligent efforts.

Secretary-treasurer Russell passed out an epitomized financial summary, reflecting the annual audit which had been circulated to officers and the Executive Committee. Highlights were encouraging, with the "bottom line" showing a positive balance about twice that of the previous year. Report approved.

Dr. Schery, in lieu of recitation of the annual activities (reported in Harvests) summarized the first 25 years of the Institute, recalling some of the stalwarts and their sustaining efforts (reproduced in full, beginning page 4). Exhibits of press kits, clippings, reprints, and other documentation were circulated. Dr. Roberts followed, speaking on "The New Boy on the Block Looks to the Second Quarter Century". His abbreviated discussion is reported in full pages 14-17.

James Carnes, in behalf of Dr. Gerald Pepin, presented the Variety Review Board's report, this, as approved, is itemized separately on page 3.

No Product Review Board activities were reported, other than Dr. Roberts revision of the "prospect letter" used during the Jacklin presidency. Mr. Carnes, chairman of the nominating committee, presented the slate listed in the lead item (page 1), elected unanimously.

Mr. Rothwell asked several members for extemporaneous remarks on conditions within the trade. Mr. Russell noted that his partner was petitioning ASTA to retain him in office for another year because the firm's business had never been better since he was called away from the office so consistently! Other representatives were not so optimistic: sales in the Midwest particularly, were weak. Don Jacklin and Mike Robinson stated that conditions were mixed in the producing areas, with ample seed supplies on hand in general but discouraging prices in some areas leading to plow outs.

Rothwell graciously reviewed his experiences at the helm, epitomized page 3.

The new board convened and elected its officers: all incumbents were returned, as reported in the lead item. President Rothwell indicated the intention to continue with generally the same committee representation, except that Mike Robinson would chair the Product Review Board. He asked for a grace period during which people might be consulted individually for suggestions. Carry-over chairmen are membership solicitation, Hill; executive committee, Carnes, Jacklin, Schuler plus the officers; Variety Review Board, Pepin, chairman, Bailey, Kaerwer and Loft; research grants, Glately.

Continued participation in the joint "Supplement" was voted (\$1250). Mr. Carnes indicated that there may be some interest in the Oregon Fine Fescue Commission rejoining the Institute, and if the plan reaches fruition a board seat will be needed for the chairman of the Commission. The sense of the discussion was that this should be referred to the executive committee if the proposal eventuates.

REMARKS OF PRESIDENT ROTHWELL, LAWN INSTITUTE ANNUAL MEETING

The fiscal year 1981-82 has been one of concern, centering about the retirement of our capable Director, Robert W. Schery. To our great relief the search committee uncovered an outstanding replacement, Dr. Eliot Roberts. Congratulations to Howard Schuler and his committee. And I do want to express the Institute's deep appreciation to Bob Schery for outstanding work through the years. We wish for him the time and opportunity for all those activities that he and Lois have so richly earned.

I believe that friendly teamwork within the Institute has contrived to make this transition an orderly and effective one. We look forward to continuing accomplishments under new leadership, confident that the Institute will become an even more potent force. It has been my pleasure to oversee this remarkably smooth transition, but even more than that to have cemented many great and true friendships along the way. I'm impressed with the Institute, and glad to have had a small part in shaping its future.

ANNUAL REPORT OF THE LAWN INSTITUTE VARIETY REVIEW BOARD

For the 1981-82 fiscal year six applications were received by the Variety Review Board. Applications were approved for Pennant perennial ryegrass (Ag Services), Clemfine tall fescue (Lofts), Exeter colonial bentgrass (Pickseed West), Agram chewings fescue (Pickseed West), Monopoly Kentucky bluegrass and Waldorf chewings fescue (Peterson Hybrid Seed). The Variety Board voted to keep Arboretum Kentucky bluegrass on the approved list. Baron Kentucky bluegrass was voluntarily removed.

The current approved list includes the following varieties:

<u>Kentucky Bluegrass</u>		<u>Perennial Ryegrass</u>	<u>Fine Fescue</u>	<u>Tall Fescue</u>	<u>Specialty Varieties</u>
Adelphi	Merion				
America	Merit	Blazer	Agram	Clemfine	Emerald Creeping bent
Birka	Monopoly	Citation	Banner	Falcon	Highland Colonial bent
Bonnieblue	Nugget	Derby	Ensylva	Rebel	Prominent Creeping "
Eclipse	Flush	Diplomat	Highlight		Sabre <u>Poa <i>trivialis</i></u>
Enmundi	Ram I	Fiesta	Koket		Exeter Colonial bent
Fylking	Sydsport	Manhattan	Ruby		
Glade	Touchdown	NK200	Waldorf		
Majestic	Vantage	Omega			
		Pennfine			
		Pennant			
		Regal			
		Yorktown II			

Respectively submitted,

G. W. Pepin
Chairman, Variety Review Board

As Dr. Eliot Roberts assumes leadership for the Lawn Institute beginning its second quarter century, he felt it appropriate that I epitomize the quarter century of activities now ending. Although I have had nine fat volumes crammed with Harvests to sort thru, records of the early years are scant. Roy Edwards, Jr., the Institute's able first secretary-treasurer, still an active seedsman with Research Seeds, Inc. passed along all of his records to Oregon when the Institute's nerve center gravitated from the Midwest to the Pacific Northwest. Bob Russell's files may contain some scattered references to the early meetings, but this has been a busy year for Bob as President of ASTA and I haven't dared ask him to search the accumulations received from Oregon. So, many highlights of Institute progress come from memory, especially during its formative stages in the middle and late 1950's. Our second president, Carl Farris, had a favorite saying about the new Institute, "You have to crawl before you can walk". This characterizes the Institute's approach, for it was a "first" within the seed industry, and blazed a new trail in response to changes that lawn-seed leaders sensed were coming.

In the early 1950's the lawnseed industry was simply an appendage of the farm seed business. There were no spanking new cultivars to publicize. Top quality lawnseed, mainly Kentucky bluegrass, was harvested from midwestern pastures and meadows from which livestock were withheld through late spring until the seed crop matured and could be harvested. Scotts in particular concentrated on lawnseed, and Vaughans quickly identified with Arden Jacklin's shrewd presumption that suburbia was ready for a premium grass of especially high quality as he initiated the first agronomic growing of Merion. A watershed had indeed been reached, and never again would the cleanout from farm seed serve for lawns. The established bluegrass-gathering firms of the Midwest took pains to contract for the least-weedy fields that would yield an abundance of plump seed of heavy bushel-weight. Most of you can remember those frantic few weeks in June when the stripping machines roamed from field to field, from Kentucky and Missouri northward so far as Canada, in search of good bluegrass stands. I reviewed this romantic era for Economic Botany in a story entitled "Bluegrass' Grassroots Empire" in 1959.

Among the major firms harvesting bluegrass in those days were Mangelsdorf Seed of St. Louis, the Peppard & the Ruby-Patrick firms of Kansas City, Spears and Sons of Paris, Kentucky, Mitchellhill Seed of St. Joseph, Missouri, Maupin Seed of King City, Missouri, and United Seeds of Omaha. Although competition was intense among producers, top executives realized the need for a united industry front. They organized loosely as the Bluegrass Association centered in Kansas City, represented by such grand gentlemen as Al Mangelsdorf, Ed Spears, the Roy Edwards's Sr. & Jr., Joe Peppard, Carl Farris, and William Gassner, among others.

HISTORICAL PERSPECTIVE - Continued

I had come to work for Scott Seed in Marysville about this time, from Monsanto Chemical Company in St. Louis. Because Scotts was the largest purchaser of bluegrass in the country, and Chid Mills (then president of Scotts) was responsible for seed purchases, liaison with seed firms in Kentucky and the Western District became inevitable. Part of my assignment was to visit the producing areas, and provide such intelligence as could be gained on crop prospects and quality. It was becoming apparent to the leading bluegrass producers that a thorough-going national informational program about lawns was needed. Kentucky bluegrass, as one of the fine-leaved, perennial species, would benefit if consumers could be made quality conscious. Cheap, trashy mixtures full of annual ryegrass commanded much of the market in those days.

The outcome was creation of the Better Lawn & Turf Institute, a name, I understand, suggested by Al Mangelsdorf. This is the legal designation for the non-profit corporation chartered by the state of Missouri that is the Institute, even though years later I abbreviated the name to "The Lawn Institute". The board of the newly formed Institute met periodically at the Kansas City Club, and initiated activities by hiring a public relations firm to represent it. A local Kansas City outfit was chosen over a Chicago finalist, but shortly it was dropped in favor of Bozell & Jacobs with both Kansas City offices and national connections. Bozell and Jacobs continued to represent the Institute for several years, even after full-time headquarters were established in Marysville.

Although the group functioned as a committee of peers, Joe Peppard was apparently the first "elected" president. Colonel Spears served as vice president continuously throughout the early years, and as senior executive committee member until his unfortunate death in an automobile accident in Kentucky December 27, 1970. Roy Edwards, Jr. held the secretary-treasurership through all the "Kansas City years", and was the untiring administrative officer who kept the organization pieced-together. Carl Farris succeeded Joe Peppard to the presidency, and from 1957 until 1962 William Gassner held the office continuously.

The Institute program began in earnest with the first Gassner term. In 1957 I ceased being on "loan" from Scotts as a consultant to the Institute, to become its full-time Director. Our quarterly newsletter, Harvests, began. Stories for national magazines and trade press releases were extensive. We worked closely with the highway advisory board in Washington, DC, attended college meetings and field days, and presented papers before the professional societies. Contact was maintained with a number of major corporations (chemicals, fertilizer, equipment, etc.). A national "Board of Advisors" was created and communicated with. A campaign was undertaken to avoid the designation "common" Kentucky bluegrass in favor of "natural". Writing of The Lawn Book was started, and

HISTORICAL PERSPECTIVE - Continued

contributions were made to gardening encyclopedias. Kentucky bluegrass seed collected from diverse parts of the country was sent out for comparison plantings at research centers throughout the country. The times were ripe, public interest high, and our efforts well received: indeed what was started in 1957 has remained the backbone for the Institute's program for all twenty-five years of its existence.

In 1958 I talked to the national horticultural congress in Williamsburg. Our board meeting was held with the Western Seedsmen, and it was decided to invite fine fescue and far-western bluegrass participation. An Institute logo was designed courtesy Northrup King, and by year end we were busy preparing the movie "Bluegrass Beauty". Much of the filming was carried out on the Institute grounds in Marysville, by Signal Films of Kansas City. Roadside seeding was pursued, and I spoke on "Balanced Roadside Seeding" before the annual Shortcourse on Roadside Development. 1958 was also the year I was elected chairman of the Lawn & Turf Division of ASTA, and charged with arranging the division's program in St. Louis.

By 1959 "Bluegrass Beauty" was appearing on television nationwide. We organized a special symposium about herbicides for lawns, still a relatively new field in 1959. I spoke to the American Road Builder's 57th annual convention in Dallas that year, and remember well air travel being iced to a halt. Bill Gassner and I met with the Fescue Commission in Oregon in February, concerning plans for joint participation. The Commission voted to join, and board seats were allotted Lud Hagen and Clayton Fox. And this was the year that J. & L. Adikes (Bob Russell) first joined the Institute!

It came as no surprise that Gassner, Spears and Edwards were all returned to office at the annual meeting, and Ed Mangelsdorf (whom we were fortunate to have as president during many difficult years later) was elected to the board. This was the year, too, in which secretary-treasurer Roy Edwards, Jr. assumed presidency of the ASTA. It was my privilege to speak before the Lawn & Turf-grass Division at these meetings. In-house articles were prepared for numerous magazines, and the "Your Lawn" cartoon series was originated for national distribution through Derus Media Service.

In 1960 we tested the first coated fertilizer (with Archer-Daniels-Midland, Minneapolis). That same year I cooperated with Encyclopedia Britannica in the preparation of a "Featurette" about lawns, for television. It was the year, too, for my preparation of chapters due to appear in USDA 1961 Yearbook, Seeds, entailing numerous Washington visits with our good friend Bill Heckendorn. In 1960 there were two annual meetings, one the customary one in May in Kansas City, and a second in June in conjunction with ASTA.

By now the Institute was being widely quoted, from Sunset magazine on the West Coast, to Better Homes in the Midwest, and Popular Science in the East. MMA asked the Institute to judge a soil

HISTORICAL PERSPECTIVE - Continued

additive, and International Paper wanted an opinion on its wood pulp mulch. The National Plant Food Institute expressed interest in participating with the Institute. I spoke at the national convention of Men's Garden Clubs, and followed Senator Wayne Morse to the podium before the Oregon Seed Growers League. Several television appearances were made, and a promotional program for utilizing fine-textured species as "wintergrass" for dormant bermudagrass in the South was begun.

In 1961 the Institute's "Seal of Approval" was inaugurated. In the autumn the first plantings of Highland Bentgrass were made on Institute grounds, the beginning for a most pleasant alliance with the Highland Bentgrass Commission, lasting into the present. Towards the end of 1961 the Northern Minnesota Bluegrass Growers Association joined us, with a board seat accorded Gustav Kveen.

In 1962 Edward F. Mangelsdorf of St. Louis succeeded to the presidency, with Tom Ruckman of Oregon as vice president, and Roy Edwards, Jr. continuing as secretary-treasurer. The Highland Bentgrass Commission joined the Oregon Fine Fescue Commission in board representation. In ceremonies honoring retiring officers, Colonel Spears did not escape scot-free, being named "co-vice chairman". In my report to the board I noted that problems confronting the Institute were mostly internal, and that externally our image remained powerful and well accepted.

During the year seventeen lawnseed firms received permission to use the Institute's "Seal of Approval" on submitted formulations. Advertising mats featuring the Seal of Approval were offered. Activities continued to be wide-ranging, from assistance to Stanford Research Institute to appearance on many horticultural platforms and in horticultural publications. Indeed, we even furnished the Department of Agriculture of Massachusetts with materials for its State Fair! Response to the press kits and the movie were excellent. The winterseeding program for the South mounted. Visitors to the display grounds in Marysville included editors from the Reader's Digest, Murray Franklin (president of Garden Institute of Research and Development) with a visitor from England (Fisons), Richard Parker (president of Parker Sweeper) and numerous industry representatives.

Capable Ed Mangelsdorf remained at the helm in 1963, with Roy Edwards, Jr. still secretary-treasurer. Amos Funrue of the Fescue Commission and Fred Hottinger of the Highland Bentgrass Commission were co-vice presidents. Dick Kuehner (fescue executive) and Fred Jans (Highland bentgrass) facilitated our efforts. Still, I reminded the board in my report, "---that though the Institute seems highly appreciated publicly, the trade itself makes relatively little effort towards creating a favorable industry-wide public image". Factualism still held sway in the trade.

HISTORICAL PERSPECTIVE - Continued

With the decline of bluegrass income from the Midwest, serious budgetary problems were arising. It became necessary to withdraw "Bluegrass Beauty" from television. President Mangelsdorf, at a luncheon in Kansas City honoring European visitors, acquainted them with the Institute program. Hans Mommersteeg and A. J. Van Engelen were there, representing the burgeoning bluegrass interests in Holland. The Northwest Bluegrass Association was organized in 1964, in recognition of the shift of bluegrass production from the Midwest to the Northwest, and the need for more support if Institute programs were to continue. Irrepressible Jim Carnes spearheaded this move. Mailings to the South were initiated in support of winterseeding. President Mangelsdorf rejected an offer of limited European support as "inadequate". Ed and I spoke to the Oregon Seed League meetings late in 1964, and were guests at a luncheon arranged by the Fescue Commission. It was evident even then that clamor against field burning in the Northwest was imminent.

During 1965 Jim Carnes made great progress with the Northwest Bluegrass Association. Both he and Walt McElhaney (Highland Bentgrass), returning from a survey trip to Europe, kindly took time to speak to our annual meeting in Kansas City. Mangelsdorf and Edwards were re-elected president and treasurer, while Funrue and McElhaney served as co-vice presidents.

Mr. Mangelsdorf acknowledged appreciation for and the necessity of Pacific Northwest Bluegrass support in view of the depleted treasury. Gordon Newton, Northrup King, expressed satisfaction with the Seal of Approval as a merchandising tool. In my report to the board I noted the rising importance of the sod industry, a new special turfseed outlet. With travel assistance by the Fescue Commission, I completed a wintergrass survey of the Southeast. I also handled the lawn section for Donall Wyman, Harvard, in the preparation of his encyclopedia. Jim Carnes arranged a series of "one night stands" through Oregon into eastern Washington, in which he accompanied me to discuss the Institute with grower groups. The Fylking promotional program moved into high gear, and Fred Jans retired as executive secretary for the Highland Bentgrass Commission.

The customary May annual meeting was held in Kansas City in 1966, and all incumbent officers were retained. The cash position remained very tight. Press kit pick-ups had become too voluminous to tally, facilitated by an AP release of our material; Luce Clipping Service, to which we still subscribed for two months each spring, showed 4,552 column inches of space attributable to Institute releases. Lack of funds had necessitated termination of the contract with Bozell & Jacobs, but I was able to settle upon a working arrangement with Smith-Douglas (Borden) of Columbus that assisted with office expenses. The Reader's Digest "Complete Book of the Garden", for which I was consultant, appeared in May. I joined in the judging of the "Best Lawn in Denver", at the invitation of Herb Gundell and the Denver Post. A winterseeding mailing went to 500 southern newspapers and editors. The Merion Bluegrass Association assisted

HISTORICAL PERSPECTIVE - Continued

the Institute with a special grant. Wally Hunter assumed promotional responsibilities for the Highland Bentgrass Commission.

The 1967 annual meeting, still held in Kansas City, re-elected Mangelsdorf and Edwards, and installed Jim Carnes as vice president. Our reputation was now sufficiently established that not only did we have upwards of 9,000 inches of column space from our press releases, but were invited to prepare lawn materials for others (such as for 600 newspapers, for ASTA). We had begun sending press kits to radio-TV as well as to newspapers. Six ounce polyethylene seed packets prepared by Mangelsdorf Seed Company were distributed through the Lawn Institute, especially to attendees of the Twenty-Sixth Shortcourse on Roadside Development. New European cultivars were beginning to reach market, and many were planted on the Institute observational grounds. A lawn clinic was held in Omaha at the invitation of Extension Service.

For the first time our annual meeting was held away from Kansas City, - in Salem, Oregon. With the shift came a new secretary-treasurer, Howard Miler, of the Highland Bentgrass Commission. Jim Carnes became president, and James Jenks vice president. Carnes had arranged a marvelous meeting, with two days of business and a tour, and with Governor Tom McCall of Oregon as one of the speakers.

Back East I represented the Institute on the "Lawn and Garden Week" committee, working through the Department of Agriculture in Washington, DC. This was to have several years of influence in releasing gardening information, for which we consistently furnished reprints and other informational materials. We cracked the business press this autumn with my article in the National Observer, "Taking the Mystery Out of Buying Lawnseed". Regrettably, we had to end our clipping service because of increasing costs. The tempo of turfgrass research nationally was picking up and we began epitomizing reports in Harvests for the information of members.

President Carnes spoke at the Oregon Seed Growers League, and I was privileged to also appear on the program. Jim organized a breakfast, at which plans were laid for obtaining a broader base of support for the Institute. His suggestions were presented in the April, 1969, issue of Harvests. Mr. Carnes sparked another significant annual meeting in the summer 1969, Oregonians were re-elected to all offices, and a fine banquet address being given by none other than Bob Russell. I was able to attend the First International Turfgrass Conference in England later in the year, and delivered the paper "Turfgrass Seed Production in the USA".

HISTORICAL PERSPECTIVE - Continued

The decade of the 1970's opened with an exchange of correspondence with Governor McCall about field burning. Especially important to our finances was Hercules Chemical's taking a membership in the Institute through the good offices of Doris Watson. Liaison with research, golf course, and commercial people continued unabated. We were in the thick of roadside seeding programs, wintergrass promotion, and confering widely. Flow of our articles to the gardening press was unstinting. Reporting on technical literature became even more extensive: Harvests was now fully separated into a general and a technical section. We began the ploy in 1970 of offering reprints to those sending in a stamped envelope.

The annual meeting was delayed until December in 1970, to coincide with the Oregon Seed League meetings. At that meeting Gordon Newton of Northrup King was elected president, George Osburn of Hercules vice president, and Bob Russell secretary-treasurer. Thus leadership was shifting eastward again. Plaques of appreciation were presented to El Mangelstorf ("In appreciation of his enthusiasm and outstanding leadership 1962-1968"), and Colonel Spears ("Founder, charter trustee executive committee, 1957-1971, in appreciation of many hours of unswerving enthusiasm and inspiration to others"). Only a few days after receiving his plaque Colonel Spears died in an automobile accident in Kentucky.

Throughout the remainder of the decade Institute activities continued at unabated pace. With the support from the ASTA, the "Supplement", a joint venture with other associations sent to over 3000 addresses nationally, became an annual production. Our stories have continued in innumerable consumer and professional magazines, booklets, encyclopedias, textbooks and so on. I have appeared on television, and on the platform before various botanical groups, professional societies, and international turfgrass conclaves. We have cooperated with the golf course fraternity, especially in publicizing winterseeding. In short, the Institute has been in "the thick of things", nationally and internationally.

During the 1970's new cultivars were on the upswing. Our Variety Review Board evolved into a practical vehicle for publicizing Institute acceptances. In late 1971 a new support program based on proprietary cultivars began. Less than a dozen new cultivars were available at the time. On the Variety Review Board were chairman Howard Kaerwer, Doyle Jacklin, Dr. Johnny Thomas and Robert Russell. In June of 1972 Gordon Newton retired, and George Osburn assumed the presidency; Arnie Bonnicksen became vice president and Bob Russell was re-elected secretary-treasurer. In 1973 Dr. Gerald Pepin replaced Dr. Thomas on the Variety Review Board. The annual meeting was, for the first time, synchronized with that of the ASTA, this year in Atlanta. All officers were

HISTORICAL PERSPECTIVE - Continued

re-elected, and Doyle Jacklin became chairman of the Variety Review Board. The list of accepted varieties had expanded to about a dozen bluegrasses, a half dozen ryegrasses, four fescues, and five bentgrasses. An era of turfgrass ratings had begun in earnest.

I attended the Second International Turfgrass Conference in the eastern United States in 1973. My book, A Perfect Lawn, was published, successor to The Lawn Book. I also handled the lawn section of the American Garden Guild 10,000 Garden Questions Answered, and accepted the position of liaison representative for the Crop Science Society with the Institute of Ecology.

The 1974 annual meeting was held in Minneapolis, at which time several new cultivars were added to the VRB list. The Fertilizer Institute appropriated \$5,000 for joint promotional activities, and president Osburn appointed Mr. Skaptason to advance ideas for a "Product Review Board". Mr. Osburn was re-elected president, Bob Russell secretary-treasurer, and Doyle Jacklin became the new vice president. FBI/Gordon (Mr. Skaptason) became a corporate member, adding materially to our support from outside the seed industry. Eliot Roberts completed editing of the Proceedings of the Second International Turfgrass Society's Research Conference, to which the Institute's contribution was "Quality of Lawnseed on the American Market". Interest from Europe mounted, and an excellent publication from Weibull's, Sweden, (Gras-Tips), began reporting upon European research. Late in 1974 Andersons, Maumee, Ohio accepted a supporting membership in the Institute.

During the mid-seventies we did much to publicize "gradual-release" fertilization, systemic fungicides made their advent, and, of course, new cultivar releases became rampant. At the 1975 annual meeting held in Houston Mr. Osburn was re-elected president, but subsequently found it necessary to resign, and vice-president Jacklin assumed the presidency. Mr. Russell continued as secretary-treasurer. In 1976 my book Lawn Keeping was first published. The annual meeting was held in Los Angeles, re-electing Doyle Jacklin president, while Gordon Miller became vice president, and Bob Russell continued as secretary-treasurer. Dr. Pepin, finishing his first term as chairman of the Variety Review Board, was re-elected, a position he has held ever since. I was active with the "Morning Exchange" television program out of Cleveland, and we cooperated closely with the Garden Writers Association that year, especially during their meeting in Ohio. This was a time, too, when several radio conference calls were made via telephone to studios in various parts of the country.

All officers were re-elected in 1977; Peter Loft and Bill Meyer joined Howard Kaerwer and Gerald Pepin on the Variety Review Board. The Fescue Commission dropped out of the Institute during the mid-seventies, and the Merion Bluegrass Association found it

HISTORICAL PERSPECTIVE - Continued

necessary to phase down its support. FBI/Gordon cancelled its membership following controversy about the product review proposals after the Houston meeting. Highland Bentgrass was also facing hard times and had to scale down support. I pointed out to the board that it was possible to maintain a full Institute program only because of the low overhead attendant to our rural, bare-bones operation.

We participated in the Third International Turfgrass Conference in 1977, at Munich, where I presented "Evolution of Improved Lawn-grasses in America: A Review of Major Events Leading to the Kentucky Bluegrass Cultivar Revolution". Past president Osburn died in early December, and president Jacklin called an executive committee meeting in Chicago in February of 1978. There a final draft of the new by-laws was approved. Jacklin presented the Institute's Award of Merit to Reed Funk at the New Jersey Expo. Among significant stories was a custom item in Woman's Day (CBS specials), and a series for American Nurseryman. Seventy-three parcels of Institute literature were mailed in March, as part of the Agronomy reciprocal literature exchange.

Incumbent officers were retained for the 1978-79 fiscal year. Doyle Jacklin in his presidential remarks, graciously stated, "I am personally proud to be a member and president of the Lawn Institute." This was the year for withdrawal of several older cultivars from the Variety Review Board listings (Arista, Cheri, Galaxy, Pennstar, Prato, and Sodco bluegrasses; Compas, NK-100, Polo, Yorktown and Game perennial ryegrasses; Jamestown fescue; Holfior bentgrass), with addition of numerous exciting new ones to bring the acceptances up to 33. The Institute staff offices initiated a "mornings only" policy for secretarial activities. Vice-president Miller left the seed trade late in 1978, and was succeeded as VP in 1979 by Chase Cornelius of Northrup King. An executive committee meeting was held in Marysville in January of 1979. I was serving as an associate editor for the Third International Turfgrass Conference, Proceedings proofs for which were now readied. Lawns Across America was composed for the American Association of Nurserymen, and reprinted as a promotional leaflet to be used by many Institute firms.

The same officers were re-elected for 1979-80. Several new cultivars were added to Variety Review Board listings. Institute stories appeared in Dr. Becker's international turfgrass journal, Rasen. Seed samples were again distributed to research centers.

In 1980 both northern and southern press kit mailings were undertaken. At San Diego, in June, Norman Rothwell became president, the first Canadian to hold this office; Bob Peterson was elected vice president, and Bob Russell continued as secretary-treasurer. Hercules dropped its participation, and the Institute had become an organization sponsored almost exclusively by proprietary cultivars.

HISTORICAL PERSPECTIVE - Continued

Retiring president Jacklin, in his presidential address, concluded "Your Institute is in good shape", although conceding that challenges lay ahead. Variety Review Board acceptances increased slightly. Incoming president Rothwell requested Messers Pepin, Bailey, Kaerwer and Loft to continue as the Variety Review Board.

During 1981 the Institute continued full steam ahead, concentrating on new lawngrass cultivars. Recognition was given to the changing temper of the times, with emphasis on efficiency, economy, practicality. In July, at Atlanta, the same fine team of officers was re-elected for the 1981-82 fiscal year. Howard Schuler was appointed chairman of a search committee, which successfully uncovered Dr. Eliot Roberts to become Director of the Institute upon my retirement. We were all most pleased with that outcome. During the summer both Rothwell and I attended the Fourth International Turfgrass Conference in Guelph, Ontario, Canada. In October of 1981 another stroke of good fortune brought Mrs. Joyce Wening to the staff offices in Marysville as secretary and office manager.

The previous issue of Harvests discussed in some detail the change-over from one regime to another, and I am pleased to report that we are "winding down" smoothly in Marysville as Dr. Roberts readies himself for the Directorship. Mrs. Wening will still be available in Marysville through September, to route mail appropriately, and to acquaint correspondents with the Tennessee address. We appreciate greatly Eliot Roberts' initial efforts, while not yet on the payroll, in visiting Marysville, preparing materials for the autumn press kit, and otherwise assuming responsibility for what I am certain will be a skillfully handled future for your Institute. Thus it is with pleasant memories from the past, and high hopes for the future that I turn over the reins to Eliot.

I want to thank you one and all of the fine support you have given the Institute through the years, especially those who have served as officers and committee chairmen. Many contributions have had to be overlooked in this recitation, unfortunately. In the last two years Norm Rothwell has been most gracious in guiding us from across the border, in spite of postal strikes that seem to be par for the course these days. Norm, I do thank you personally, and your fine wife, Mavis, for all of the help and pleasant camaraderie of recent years. And it goes without saying that the Institute's mechanics would soon founder were it not for Bob Russell and his computer. He must have worked 24-hour days the last year, to keep up with both the Institute and ASTA. Thanks so much, Bob, for the understanding way in which you have always guided Institute financial affairs. May the years ahead be bountiful for the Institute, and for all of you.

Sincerely,

Robert W. Schery
Retiring Director

"THE NEW BOY ON THE BLOCK" LOOKS TO THE SECOND QUARTER CENTURY

By Eliot C. Roberts

Twenty five years ago (Spring of 1957) some of my early research at the University of Massachusetts caught Dr. Schery's attention. This work was concerned with developing a better understanding of the kinds of grass found in existing lawns. Such matters as the causes and cures for summer dormancy in bluegrasses and effects of fertilizer usage on turfgrass physiology affecting growth stimulation and recession were being studied. This led to exchanges of information and my introduction to The Better Lawn and Turf Institute.

The following spring Margaret Herbst spoke on Merion bluegrass at our Turf Conference and Dr. Schery lectured on Seeds and Seeding. Each registrant at the conference received three Institute reprints: Seeding America's New Front Yard, There is a Difference in Grass Seed and Patience Pays in Seeding Lawns. These articles by Dr. Schery were so well received that we were requested by the New England Turf Association to issue conference Proceedings from that time on.

Thus began a working relationship and friendship that has developed through the years in a most meaningful fashion. This reached the point, just prior to my move from Iowa to Florida in 1967, where we gained contract approval to jointly author a text on Turfgrass Science. At that time the volume by Bert Musser was "the" reference. I still feel that the outline and approach that Bob and I worked out was unique. There should have been some way for us to complete this project; perhaps it's still not too late.

With this brief reminder of early and continuing contacts with Dr. Schery, what about the future of the Lawn Institute that he has been so instrumental in developing? I am enthusiastic about the Institute concept, appreciative of its past accomplishments and now look forward to building some new identities as we continue to promote existing programs that have served the lawn seed industry so well. During the months ahead I will develop several proposals for consideration at the 1983 annual meeting. These will be presented in forthcoming issues of Better Lawn Harvests with the request that information exchanges on the proposals be presented as "Letters to the Editor".

At this time, I'll restrict my comments to the identification of five key concepts that seem fundamental to achieving Institute goals in the years ahead.

SECOND QUARTER CENTURY - Continued

First: Seed is Basic

All lawn and turf management practices are prescribed on the basis of meeting cultivar requirements. Use of chemicals and equipment must be programmed according to plant needs and limits of tolerance. All other aspects of lawn care and turf management depend on growth characteristics of the grasses involved. Thus, the seed is basic or fundamental in lawn development and maintenance concepts. Because of this relationship, it is appropriate that the seed industry assume leadership in research and education related to fine turf. This leadership has the capability of maintaining a strong sphere of influence throughout Landscape Horticulture. It can serve as a catalyst to bring about improved research and educational endeavors cooperatively with chemical and equipment interests. The Lawn Institute has accepted this challenge well in the past. It should maintain a strong posture in this area for the future.

Second: Chemical Lawn Care Professionalism

Increasing professionalism is recognized as a key concept of chemical lawn care enterprises. Lawn seed, fertilizer, pesticide and equipment companies that have served national, regional and local needs over the years have helped to generate confidence and respect on the part of the consumer public. Continuing effort is required. The Lawn Institute has an important mission in advancing concepts of lawn care professionalism.

Third: Lawn Institute Research

Turfgrass research in the United States has its roots back with the founding of the Agricultural Experiment Stations some one hundred years ago. Much has been learned about germ plasm, heredity, growth characteristics, physiology and ecological relationships. Still our understanding is incomplete. We observe differences in plant response that are difficult to understand and explain.

The function of the Lawn Institute has been to encourage research and researchers, to monitor research conducted world-wide, and to aid in processes of communication among researchers. In addition, research analyses of technical papers and reports are important in relating results from one study to another with the objective of developing new understanding of subject matter. This type of research has the potential for formulating new theory and practice based on careful and thoughtful analyses of field and laboratory studies conducted elsewhere.

Information processing is a specialized type of research which involves synthesis of new concepts from the vast storehouse of existing data. Thus, without maintaining plots, the Institute

SECOND QUARTER CENTURY: Continued

through its Executive Director is in a key position to report on up-to-date advances in turfgrass science and, in addition, contribute professionally by presenting new and creative interpretations based on broad perspectives on current research.

Fourth: Learning of Lawns

Of all plant communities appropriate for study of ecosystems, the lawn is more familiar to most people than any other type. Introduction of turfgrass - soil - weed - insect - disease - water - temperature - light relationships can provide excellent educational experience for young and old, in and out of school. Significant practical spinoff for improving lawn care practices at home and throughout the neighborhood can be realized.

By varying means the Lawn Institute's prime function is helping people learn about lawns. This has been done well and the need continues. Consumers accomplish what they believe they can do with some significant measure of enjoyment. This concept involves a visualization of the process leading to the accomplishment. This must be positive, easy to understand and pictured as fun. Excellent pictures and graphics help make the difference. The author or speaker is presented with a challenge in making this concept functional.

As cable TV comes on line for larger segments of the public, learning through this media will gain in importance. It is appropriate for the Institute to gradually build a reputation for educational excellence in these areas.

Fifth: Leaflet/Brochure - Public Relations

The Lawn Institute enjoys an enviable reputation. Twenty five years of service to the lawn and garden public has yielded results for which all seedsmen should be proud. In a non-lavish way the Institute name and logo have gained exposure throughout the United States and Canada and even abroad.

Such opportunities for continuing public relations impact as may be possible should be realized through:

- contacts with Garden Writers Association;
- participation of the Executive Director at field days and conferences;
- association and cooperation with the seed trade;
- liaison with seed growers;
- articles on lawns and gardening;
- information releases to the media -- newsprint, radio and TV;
- Institute sponsored recognition programs;
- label and logo recognition.

SECOND QUARTER CENTURY: Continued

In order to assist interested parties understand better the purpose, goals and programs of the Lawn Institute, the publication of an attractive, descriptive leaflet is proposed. The format for this would be similar to "National Garden Bureau, Inc. Its Organization and Services".

The concept of service promotion as a means for increasing membership is worthy of consideration. In addition, the establishment of a fee or subscription structure might well be popular with other groups or individuals. Whatever means are employed to increase the interface between the Institute and others with allied interests, public relations effort will be important.

Around these five concepts:

- Seed is Basic;
- Chemical Lawn Care Professionalism;
- Lawn Institute Research;
- Learning of Lawns;
- Public Relations;

we should be able to generate the necessary enthusiasm for excellent Landscape Horticultural public service.

Please be assured that the new Institute office in Pleasant Hill, Tennessee is located so as to provide easy access for the Executive Director to be of service wherever needed: East, West, North or South. Some increased activity will be directed throughout the Sun Belt, particularly as new cultivars for this region are identified.

Finally, I believe that the past twenty eight years of university experience have provided the type of preparation required for a candidate to try to fill Dr. Schery's shoes. We might even say that its taken this amount of time to prepare for the new challenge. Yes, I'm finally graduating from the university environment to accept this position with you. That might even qualify me for some sort of record in academic training. I feel ready now to move ahead with the kind of public education and research programs that will best meet the needs of lawn seed enthusiasts wherever they may be.

Deverly Roberts (Dev) will join me as office manager and graphic artist at our new Tennessee location. Together we look forward to serving you well.

BETTER LAWNS & TURF - 1984 AND BEYOND

By Eliot C. Roberts

(Presented before the ASTA Lawn Seed Division,
June 29, 1982)

Since 1949 when a Britisher, George Orwell, published the novel Nineteen Eighty-Four, we have looked ahead and speculated on what quality of life would be like then. Now, 1984 is only 18 months away.

The February 1968 issue of Lawn Garden - Outdoor Living featured an article "Turf 1984, A Blueprint of Your Lawn Care Market". At that time, some fourteen years ago, I identified for this article turfgrass research areas that should help direct the future development of the lawn care market. These topics were discussed further by: A.C. Scarsfield of Irrigation Technical Services; Stan Frederiksen of Mallinckrodt Chemical Works; Dr. J.R. Watson of Toro Manufacturing Corporation; Dr. James R. Love of the University of Wisconsin; and Dr. Houston B. Couch of Virginia Polytechnic Institute. As we close in on 1984, what kind of progress has been made? How well were we able to crystal gaze and come up with clear images? What have we learned that will help guide us beyond 1984?

Starting with a 1968 perspective, the lead statement of the article provided the keynote for the discussion.

"With increased emphasis on turfgrass research in the 1970's it is likely that many of today's problems will be solved and in addition, other potential problem areas prevented. Of the many research projects being conducted at agricultural experiment stations and as part of research and development programs at our leading industrial centers, the following ten projects hold promise for the future:

- development of new improved turfgrasses;
- standardization of computerized management techniques;
- development of subsurface treatment systems;
- chemical control of turf growth;
- selective use of artificial turf;
- improved methods of water treatment;
- improved selectivity of herbicides;
- heavy-duty turfgrass cultivation;
- improved trimming, thinning and grooming devices;
- development of systemic fungicides."

The first five of these illustrate developmental concepts that have broad implications and are thus presented in greater detail. The last five represent advancements with more specific objectives. They are equally important but for this presentation are listed with only commentary on progress made as of 1982.

Development of New Improved Turfgrasses

"Turfgrasses in use today represent a virtually untapped reservoir of germ plasma which can lead to the development of new, improved varieties. The several improved selections now on the market represent a significant advance in the specialized area of turfgrass breeding. New releases will likely be more dwarf and slower growing than those now in use. They will have improved disease resistance and will be selected for cold or heat tolerance, depending on the area of recommended use. Warm season grasses may be available from plant material that produces adequate seed. Cool season grasses may have improved rate of establishment and be more competitive with weeds in the seedling stage of development. Research emphasis in this area will be most fruitful in the years ahead".

1982 Note: Much has been accomplished. The future looks bright for new cultivars with special promise for new seeded releases throughout the Sun Belt states.

Standardization of Computerized Management Techniques

"We are now living in the computer age. All areas of science and business, including combinations of both, such as agriculture, are looking for ways to use this new tool to make production more efficient and products more predictable in terms of quality. The turfgrass manager has significant input data at his disposal, should he be set up computer-wise to use it. For example, the following factors may have an effect on turf response to a specific fertilizer treatment:

- soil test data - nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, iron, minor elements;
- leaf tissue test data - twelve essential nutrient elements;
- grass data - genus, species and variety;
- weather data - temperature, humidity, rainfall, light intensity, day length, time (previous to this time, at the present time, prediction for future based on yearly averages);
- turf quality required - high, medium, low;
- cultural practices data - height of cut, frequency of cut, irrigation quantity, irrigation frequency, pesticide use (herbicides, fungicides, insecticides).

This information properly weighted and computerized can be of great value in predicting turf response and ultimately in controlling the quality of turf produced. In order to be ready for computerized turf management, years of research will be required to develop programs and to standardize methods."

BETTER LAWNS & TURF - 1984 AND BEYOND - Continued

1982 Note: The potential for integration of management data is great. Integrated pest management has proven successful for many crops. Some progress has been made in turfgrass science; however, utilization of these techniques to their fullest will have to be targeted now beyond 1984.

Development of Subsurface Treatment Systems

"Soil mixtures on newly developed lawns, sports fields and golf greens are likely to contain more sand and artificial amendments and less soil. These changes will be made in an attempt to prevent the detrimental effects of soil compaction on turf. New soil mixtures will be very well drained and will provide conditions suitable for standardization of subsurface irrigation, fertilization, pest control and aeration systems. As long as liquids can move freely upward and downward through the root zone, irrigation water may carry fertilizer and oxygen to the roots, as well as pest control chemicals up as far as grass crowns. Research to develop systems for circulating the liquid and for monitoring its chemical composition is needed. Specialized construction procedures must be worked out to provide bottom and side boundaries to contain this hydroponics type operation."

1982 Note: These types of developments have been restricted to relatively small, highly specialized turf areas. The potential for expansion of construction principles and techniques to more generalized use is believed to be highly feasible.

Chemical Control of Turf Growth

"Type of plant development and rate of growth can be controlled by chemicals. Important uses have been found for growth regulators in the production of flowers and woody ornamentals. In recent years, research advances in this area have been significant. However, chemicals for use on turf have not been as promising as those for other plant types. Since clipping tends to shorten internodes of grass plants, chemicals which do this are of limited value. Growth regulators which limit or restrict cell division and elongation can reduce rate of growth to such a level that hardness is increased. This, not decrease in mowing frequency, which would be a natural by-product of such treatment, should be the objective of research on growth retardants."

1982 Note: No really significant advances that could have market impact have been made. The potential is still there.

Selective Uses for Artificial Turf

"When artificial flowers, foliage plants and Christmas trees first were introduced, they attracted only casual attention. Improvements in the manufacture of these items have made them

BETTER LAWNS & TURF - 1984 AND BEYOND - Continued

more realistic in appearance and/or more attractive to the buyer. Artificial or synthetic turf is just coming into its own. There is little doubt but what improvements in the appearance and playability of these products will make them popular with some people for some purposes.

"As artificial broad leaved plants have taken part of the market for live plants, it would be expected that artificial turf will take some of the market now held by sod, seed and turf supply interests."

1982 Note: Good judgment of the consumer public has restricted uses of artificial turf. Sports use and interior landscape uses have provided some continuing market, but not nearly as much as predicted.

Improved Methods of Water Treatment

1982 Note: Sprinkler irrigation design, materials, water quality and water quantity were identified as the four areas in which current advancement would have market impact. Improvements in sprinkler design and in materials used have been significant. Much more effort is required to adequately provide for the quantity and quality of irrigation water needed for landscape plantings and lawns.

Improved Selectivity of Herbicides

1982 Note: Notable progress has been made in the effectiveness and selectivity of herbicides. Treatments are easier to make and excellent results are predictable. Chemical pretreatment of seed to control pests and growth was projected as an important new practice in lawn management. Supplemental applications were viewed as necessary on established lawns. Although advancements in seed treatment have been significant, further developments in this type of treatment are now projected for future consideration.

Heavy-duty Turfgrass Cultivation

1982 Notes: The importance of this practice has been best demonstrated on sports turf. The consumer public has not caught on to value for effort and/or cost expended. Use of this type equipment in establishing new lawns without changing grade and in the regular renovation of old lawns by adding seed of new improved cultivars is believed to have merit.

Improved Trimming, Thinning and Grooming Devices

1982 Notes: Machinery to perform more than one function would have advantages for modern lawn maintenance. For example, planting and establishment apparatus combined as components of

BETTER LAWNS & TURF - 1981 AND BEYOND - Continued

one power unit would be useful. Also, growing and grooming apparatus would find use under a different set of circumstances. By addition and removal of attachments, various lawn care practices may be accomplished with ease. Some new advances of this type are becoming available.

Development of Systemic Fungicides

1982 Notes: New diseases will likely be found as explanations of old lawn conditions. Advances in plant pathology will make these new disease related explanations possible. Use of systemic chemicals and improved nematode control will result in better lawns. Achievements in these areas have been notable.

This was the way it looked back in 1968 and now with the benefit of some good, old-fashioned hindsight, what else is now. There were obviously some misses, factors not given proper weight, or even left out of consideration entirely. Perhaps one missing development stands out above the others.

Plants to Enhance Our Environment

During the late 1960's, a joint task-force of the U.S. Department of Agriculture and the State Universities and land grant colleges was established to develop proposals for a national program of research for Plants to Enhance Man's Environment. The real significance of this for turfgrass science was centered in the realization that although agronomic, the turfgrass commodity was part of a horticultural package that included: trees, shrubs, herbaceous flowering plants and turfgrasses. Further, this landscape component was not simply dedicated to beautification, but to the enhancement of our functional and esthetic environment.

At that time, departments of ornamental and landscape horticulture, including turfgrass science, were located at University of California (Davis), University of Florida and Cornell University. The University of Tennessee quickly established the fourth. Other departments of horticulture added to or created new programs in turfgrass management. Through all this, Division C-5 (turfgrass) of the American Society of Agronomy continued to provide a professional and scientific outlet for turfgrass research. In addition, the International Turfgrass Society was established during this period and this organization brought horticultural and agronomic aspects of turfgrass into even better focus with the landscape environment.

The net result brought the university research and educational mission for turfgrass science in line with the industrial and business world. Products and services related to lawns involved a lot more than just turf. Marketing was indeed part of a major

BETTER LAWNS & TURF - 1984 AND BEYOND - Continued

national landscape industry. This industry is as complex as any, and without question highly successful in upgrading our in and out-of-doors living environment.

The value to individual real estate, to neighborhood quality of life, to civic pride, tourism and numerous economic and social benefits totals billions of dollars a year nationally. And with this in mind, perhaps even greater dollar value resides in horticultural therapy aspects as people help plants to help people become more humane.

Better lawns and turf for 1984 and beyond; there's no question about it; we're looking good. Significant advancements are being made. A receptive consumer public is concerned about quality of life and landscape ecology holds the potential for providing both enjoyment and satisfaction for the gardener. All of us with interest in lawn seed are in the right place at the right time. The future, through 1984 and beyond, is ours.

RESUME OF THE ASTA LAWNSEED DIVISION MEETING

Committee reports and business matters opened the sessions. A contribution for the pending "Compendium of Turfgrass Diseases" was denied, but half participation (with the Lawn Institute) in the spring "Supplement" was voted.

ASTA president Robert Russell was invited to the podium and surprised retiring Lawn Institute Director Schery with an "Appreciation". Mr. Russell said that few men have so shaped the lawnseed industry. Second chairman of the Division, and always available for counsel, nonetheless his voluminous, convincing writings accepted by garden writers nationally gave seedsmen no choice but to supply quality seeds upon customer demand. Improved seed standards are today entrenched in seed law over much of the country. Russell asked Norman Rothwell, president of the Lawn Institute, to escort Schery to the podium, where a handsome retirement plaque was presented.

Dr. Harold Loden, chief executive for ASTA, next discussed legislative activities bearing upon lawnseed; any resolutions regarding labelling that the division wished to recommend should be forwarded to the ASTA legislative committee before the next morning's meeting.

Dr. Eliot Roberts followed Dr. Loden to the platform, introduced by vice president (of the Lawn Institute) Robert Peterson, also incoming chairman of the Lawnseed Division. Dr. Roberts abbreviated his remarks, noting that they would appear in full in this Harvests, pages 18-23.

Dr. Alfred Turgeon was guest speaker. Turgeon emphasized the increasing appreciation of turf for more than its ordinary uses. Turfgrass is the matrix that blends and binds all facets of modern, urbanized America. Esthetic and mental-health benefits arise from a pleasing, healthful landscape for which modern turfgrasses are so necessary.

THE GARDENER UTILIZES INSTITUTE MATERIALS

The May-June issue of The Gardener, magazine of the Men's Garden Club of America, Inc., carried several items from the Institute's press mailing. Six inserts were credited to the Lawn Institute and one book review mentioned Director Schery as a co-editor ("Furthermore, any book edited by the people already mentioned, plus people like Derek Fell, Donald Wyman,, Charles Marden Fitch, Robert W. Schery, Author Bing, and George & Katie Abraham, just has to be good"). Page three carried the Institute item "Recommended Lawn Feeding"; page 32 the feature entitled "Do Lawns Need All that Special Attention?" as well as a short item entitled "Lawnseed Bargains"; page 36 advises "Lawn Fertilization Need Not Be Lavish"; while a page 37 headline reads "Crabgrass Not So Evil As Believed"; page 39 advises "General Seeding Pays", in recognition of the Penn State results where a three pound rate of bluegrass was far more weed-free than the one pound rate.

LAWN STORIES APPEAR IN SEED WORLD

The April issue of Seed World carried the Institute's stories "Evolution of Improved Lawngrasses In America" and "The Lawn Institute's Variety Review Board". The first story gives a review of major events leading to the Kentucky bluegrass cultivar revolution including historical development. Looking back, several key events stand out.

Especially noteworthy in America has been suburbanization and the inevitable recognition of lawn esthetics and functional benefits. Seedsmen accepted the challenge, calling for special cultivars of improved quality and greater attractiveness following the Merion breakthrough. Prominent seed companies provided promotional leadership that created public awareness of lawn values. European establishments were perceptive in recognizing the market for special cultivars and catered to it early. Public research and commercial interest have cooperated to make improved products widely available.

The second article reviews the purpose of the Variety Review Board, and lists some of the cultivars that are accepted by the Variety Review Board. This was pieced together by Seed World from a couple of Institute releases that had been accumulated. "Evolution of Improved Lawngrasses In America" was adapted from a presentation made to the Third International Turfgrass Conference in Munich, and first published in the Proceedings of that conference.

BOOK REVIEW APPEARS

The April issue of HortScience carried the Institute's book review on "Amenity Grassland: An Ecological Perspective", which has been discussed in a previous Harvests. As was mentioned there, this collection of essays concerns chiefly the United Kingdom and does not constitute a review of managed turf as it typically presented in the United States.

VIRGINIA PUBLICATION LAMBASTE SEED LABELLING

The April issue of "Tech Turf Topics", from the Cooperative Extension Service of Virginia Polytechnic Institute & State University, carries as one of its articles an item by Dr. J. R. Hall, entitled "Buying Turfgrass Seed and Used Cars". In this discussion Hall characterizes buying used cars or lawnseed as a "paranoid" experience. His cause for complaint with seed is the old bug-a-boo about unwanted species being carried unidentified as "other crop" ala the 1939 Federal Seed Act. Hall does not mention that a good many of the top-quality seed houses takes pains these days to have little or no crop included, or to identify what constitutes the crop. But he is on firm ground in citing such instances as orchardgrass being carried in tall fescue, creeping bentgrass being carried in Kentucky bluegrass, and so on.

Mention is made of the recent attempt by a number of eastern states to consider the identification of unwanted crop species as "restricted noxious weeds" when present in lawnseed. In the meanwhile Virginia and Maryland have cooperated to issue supplementary labels signifying that seed meets standards established by experts within those states. A burnt orange label is for Kentucky bluegrass blends, and signifies that improved Kentucky bluegrass cultivars are utilized (and that no common Kentucky bluegrass nor creeping red fescue is contained). A yellow label is for Kentucky bluegrass mixtures indicating that some improved Kentucky bluegrass cultivars are contained, but that some common Kentucky bluegrass and limited amounts of creeping red fescue may also be present.

STORY FOR AMERICAN HORTICULTURIST

The lawn story "Assessing Lawn Perturbances" that has been on tap for some time with Judy Powell, editor of the American Horticulturist (magazine of the American Horticultural Society) is definitely scheduled for August publication. Numerous illustrations were sent to Ms. Powell, both colored and black/white, and she indicates that the selection will prove useful (although not indicating which or how many, if any, of the pictures will appear). The story requested by the editorial board concerned diagnosis of troubles which can beset a lawn, and what correctives are possible. This is difficult to put into words, since all dead grass looks much alike no matter the cause of its demise. Fortunately, one of the correctives is to use hardy, disease-tolerant cultivars such as the modern turfgrass varieties. We hope that this emphasis shows through.

PRESS ANNOUNCEMENTS

Press releases were sent out to a couple of dozen of the leading trade magazines, announcing: (1) Appointment of Dr. Eliot C. Roberts as new Director of the Institute, and (2) Election of the new officers and Board of Trustees at the annual meeting. The mailing was made the first week of July.

AMERICAN LAWN CARE REVIEWED

An Institute story appearing in the March Rasen, international turfgrass journal edited by Dr. Peter Boeker of Bonn, Germany, discusses in non-technical fashion, the tenor of lawn tending in the United States, in an item entitled "Lawn Seasonal Scenerio", by Dr. Schery. The story includes the Institute's Variety Review Board listings as of the time of preparation, and has been reprinted for general usefulness, in documenting press kits, and for answering inquiries.

The scene is set by describing North American habitats. The story then proceeds in chronological fashion, beginning with spring when enthusiasm is generally most high. Lawn seeding is discussed, including renovation. Fertilization and weeding are emphasized. For summer mowing and watering stand out, but pest control can be locally very needful. The story winds up stating that, "autumn is probably not the end but the beginning". It then summarizes procedures particularly appropriate for that time of year.

We are pleased that Dr. Boeker saw fit to utilize an article in the conversational style in which this was written, for a journal that goes primarily to a technical readership.

LAWNSEED PRODUCTION DISCUSSED

An Institute item appearing in the March issue of Rasen (international turfgrass journal out of Bonn, Germany), was entitled "What It Takes to Produce Good Lawnseed". The story has been reprinted and circulated to the membership. Summaries are carried in English, German, and French.

Discussion opens with review of the lawngrass industry in the days of wild ecotype usage (not many decades ago). It acknowledges Arden Jacklin's foresight in initiating agronomic production of Merion in the Northwest about mid-century, which marked a transition whereby genetic identity and quality gained ascendancy over price.

Today lawn seed production is not inexpensive, but none-the-less, as the story states, "-- all things considered, the modern lawn seed industry provides remarkably fine products for a remarkably economical price." Doyle Jacklin kindly furnished costs for the first year establishment of seed production fields, and for continuing with subsequent harvest years. These data are itemized in tables 1 and 2.

TECHNICAL SECTION

MISSOURI LAWN & TURF CONFERENCE

The Proceedings of the 1961 Missouri Lawn & Turf Conference, held in Columbia, in November, was received from John Dunn in May. Again it was an attractively edited publication of 110 pages, and included presentations from numerous out-of-state experts as well as University of Missouri personnel. Missouri is a key state in turfgrass variety performance, constituting a climatic location where east meets west, and south meets north.

Several of the opening papers dealt with fertilizers, golf green specifications, soil tests, and similar subject matter. Rieke, Michigan, provided understandable summaries of micronutrient and wetting agent behavior. Teague et al, Missouri, gave an honest appraisal of gypsum, noting that its usefulness is almost solely for improvement of soil structure where excessive sodium causes clay particle dispersal.

Duff, elaborated upon his work at Rhode Island on allelopathy, in which it has been noted that almost all plants influence the growth of others through toxic secretions. His research notes that merely leaving the root systems of various turf and weed grasses in the ground can inhibit the topgrowth of new grass for some 12-16 weeks (after which the toxic effects subside, the toxins presumably metabolized by the microflora). The same inhibition occurs with weedgrasses such as crabgrass and goosegrass. In general the same effects are noted when topgrowth is mixed into the soil, but not generally (at least so pronouncedly) when merely mulched on the surface. However a goosegrass mulch severely retarded crabgrass, and goosegrass was rather markedly inhibited by mulches of all other grasses. These findings help explain the partial inhibition of turfgrasses overseeded or seeded into chemically knocked-down renovated ground.

Portz, Southern Illinois University, discussed at length the seeding of zoysia. He noted difficulties that are increasing with the traditional clones of zoysia, and is seeking ways to improve germination and establishment of zoysia from seed. Unfortunately, his procedures are involved, and require precision and equipment not amenable to the average situation. Even then results are not assured if competing vegetation is not restrained. Basically, his methods involve about a half hour "scarification" of seed in 30% potassium or sodium hydroxide, light raking and rolling with a Brillion seeder-roller, and use of the pre-emergence herbicide siduron. In another presentation Portz discussed germination of cool-season grasses, offering mostly theoretical observations. His tables indicate more rapid and complete germination for certain bluegrass cultivars than others, but this could equally well be explained by more vigorous seed lots rather than differing genotypes. It is unlikely, in any event, that people will undertake hydroxide "scarification" with species such as bluegrass, as adequate as germination is without treatment! However, the techniques may afford suggestions for improving performance of older seed.

MISSOURI LAWN & TURF CONFERENCE - Continued

Kaerwer, Northrup King, provided a wide-ranging discussion of "Turfgrasses for Tough Locations". Kaerwer reminded his audience of many everyday opportunities with a range of species and varieties, concerning which seedsmen are quite familiar. He has high expectations for the new "turftype" tall fescues, and thinks that progress has been greater with cool-season grasses than with warm-season ones.

Dunn, Missouri, reviewed the cool-season species for Missouri, and especially how they have shaped up under testing at Columbia. Judged by late summer quality, three Kentucky bluegrasses plantings have held top ratings in each of four consecutive years (Glade, Merion plus Kenblue, and Touchdown). Very close in the ratings (with only one less than top listing out of the four) come Merit, and Merion plus Baron. Falling in the top category half the time, and the "fair-good" category the other half, are Baron, Brunswick, Enmundi, Noble, Monopoly, Nugget-plus-Glade, Parade, Sodco and Victa. Reading poor in all four years are Park, Nugget, Fylking and Enita.

Dunn feels that the perennial ryegrasses are great in spring, but "fade" in summer in Missouri. Manhattan and Diplomat are highest scoring in the ratings, but relatively little difference exists between cultivars. Dunn has noted that in one Missouri location Biljart hard fescue squeezed out companion Fylking Kentucky bluegrass, while in another location just the opposite occurred: he emphasizes that cultivars should be chosen to match the soils and local conditions. He feels that tall fescue is not a low-fertility species, and that under reduced fertility it will become dominated by bluegrass (just the opposite has been the case in Ohio). Dunn emphasizes that the future may belong to cultivars having lower fertilizer and irrigation requirements.

Remaining papers in the Proceedings include criticism of EPA and "environmentalism", by Frederiksen of Mallinckrodt; a discussion of "Flowable Pesticides" by Nelson, Cleary Corporation; grub control by Craig and Thomas, of the University of Missouri; Nematodes by Palm, University of Missouri; a wick system for herbicides, by Latta, Princeton Turf; metering systems by Funk, Davey Company; and "New Developments in Spraying Techniques", by Gebhardt, University of Missouri.

ALLIUM CONTROLLED IN WARM-SEASON TURF

Johnson, Georgia, reports in the May Weed Science on successful control of Allium species (wild onion etc.) when perfluidone was applied to bermudagrass or zoysia turf in autumn, winter, or early spring. A single application gave good to excellent results, but repeat treatments for two consecutive years were needed to assure consistent control.

HEFT 1 OF RASEN PUBLISHED

The first issue of Rasen for 1982 (dated March), Dr. Becker's international turfgrass journal, was received in early May. In addition to carrying two Institute stories, a third (by Y. deChevigny and J. Dujardin, Chantilly, France) was also in English. Others, under German authorship, carried the customary English and French summaries.

Hermann, Limburgerhof, discussed turf diseases. A dozen illustrations helped with identifications. A table indicated which of the major turfgrass species are particularly susceptible to the eighteen different diseases cited. Wolf, Bonn, reviewed the increasing need for urban turf management, with appropriate programs adapted to various turf species. His plea seems to be for a type of "urban ecology".

Kolb, Veitshochheim, examined a series of seeding mixtures designated for "sports grounds", "ordinary lawns", and so on. The one labelled for "ornamental lawn" proved to be the most unsuitable, with those designed for "sports ground lawns" performing much better. One sports grounds mixture contained 70% Kentucky bluegrass (Merion, Olympris and Baron), 20% crested dog's tail, and 5% fine fescue. Apparently less suitable were mixtures containing bentgrasses with fine fescues. Plantings were tested under intensive mowing, but not having to withstand wear and tear.

The deChevigny article had to do with "Experimental Studies on Turf for Racing Horses". It noted two needs in particular, - flexibility (cushion), and firmness (wear quality). A goodly measure of thatch is desired. In France horsemen increasingly prefer grass tracks to those of sand or other media. The perfect grass combination has yet to be found, but current recommendations call for 25-30% perennial ryegrass, 40-45% fescue, 20-30% Kentucky bluegrass, and 5% dwarf timothy. The authors characterize each of these species individually, including sheep's fescue and tall fescue (neither of which seem to persist well).

Dr. Schery's two inclusions are reviewed separately. A final item by Hempel, without English summary, is from Gdansk, Poland, and seems to have to do with turf maintenance.

BAHIA HIGHLY APOMICTIC

Glenn Burton reports in the January-February Crop Science that he was unable to "shake" the apomictic habit of bahiagrass by altering a series of environmental variables. He concludes that a superior selection is not likely to deteriorate through development of sexuality.

GLYPHOSATE AND GRASS SEEDING

Conventional understanding is that glyphosate (Roundup) can be used for lawn renovation with immediate inactivation in the soil that permits new seeding to proceed at once. That there may be some question under certain circumstances is revealed by research reported by Salazar and Appleby, Oregon, in the May Weed Science. The authors found some repression of both grasses and legumes when seeds were exposed directly to either paraquat or glyphosate. Germination seemed less inhibited by glyphosate than paraquat, but on the other hand damage often extended to seedling growth. The authors do not indicate that germination is repressed when knock-down treatments are followed by the usual soil cultivation in making a new planting; the herbicides were sprayed directly onto the seed in this testing.

TURFGRASS GROWN ON FERMENTATION WASTE

Wright et al, Rhode Island, report in the Journal of Environmental Quality, April/June, on the "Utilization of Industrial Fermentation Residues for Turfgrass Production". Large applications of residues left over from antibiotic and organic acid production were mixed into soil, providing an extensive nitrogen reserve. Turfgrass plantings (a mixture of Merion bluegrass, Manhattan perennial ryegrass and Highlight Chewings fescue) persisted for over three years as high quality turf without supplemental fertilization. However, at the highest rates of residue usage (about 100 tons per acre) germination of seed and initial establishment was hindered if attempted immediately after the application of the residues. The residues had an alkalizing effect on soil pH.

REMOVE OR LEAVE TURF CLIPPINGS?

Butler and Falkenberg, Colorado, reported to the Western Region of the American Society of Horticultural Science (abstract in the February HortScience,) on experiences in which clippings were collected or not, in combination with benomyl treatments and fertilization. Results were not always consistent. One year plots with clippings removed showed the best quality, the next year just the opposite. Contradictions occurred with thatch development under a regimen involving no fertilization but benomyl treatment, with the clippings removed or not. One year fertilized plots with the clippings removed developed a deeper thatch than where the clippings were left. Nitrogen removed in clippings was about equivalent to that applied as fertilizer, and nitrate levels of the soil were greater where the clippings remained.

MORE ON SOUTHEASTERN WEED CONTROL

Johnson, Georgia, reports in the January/February Agronomy Journal on "Combination of Herbicides for Winter and Summer Weed Control in Turf". Traditionally winter weeds have been controlled with post-emergence treatments, spring and summer weeds often with pre-emergence treatments. Since the dates for application very nearly coincide in these two approaches, Johnson was interested in seeing if they could be combined in a single application. By and large this was possible, and tank mixtures of combinations proved economical and successful. In particular paraquat (spray only completely dormant bermudagrass) effectiveness was broadened by the inclusion of other herbicides, but the effectiveness of glyphosate was not. Veronica was better controlled by combinations than by post-emergence treatment alone. Most crabgrass preventers were unaffected by being mixed with post-emergence materials, although DCPA effectiveness was somewhat reduced (DCPA has, however, not been consistently successful in the Southeast in any event). Oxadiazon remains the best goosegrass control, and its effectiveness is not diminished by combination with post-emergence chemicals.

CONTRIBUTED PAPERS, AMERICAN SOCIETY FOR HORTICULTURAL SCIENCE

Two papers are reported among the abstracts for the Great Plains/North Central Region of the American Horticultural Society, published in the February HortScience, that may be of interest.

Ruser and White, Minnesota, investigated sod heating (due mainly to microorganismal respiration under circumstances restricting heat escape). Influential were how the sod is stacked, weather conditions, amount of green foliage, and microbial activity. Cool weather, minimal top growth and fungicidal treatments generally resulted in cooler storage temperatures.

Steinegger et al, Nebraska, examined the effects on turfgrass from using a dull mower. Continuous use of a dull mower reduced turfgrass quality, increased leafspot disease, and decreased water use. Turfgrass quality was more seriously reduced at a low mowing height than at a high one. Mower condition had no influence on thatch accumulation or seedhead production.

PETROLEUM SPILLAGE ON TURF

Hall, Virginia, reviews the Johns and Beard research concerning repair of damage from equipment spills, in the June VPI Tech Turf Topics. No better corrective treatment than drenching with water was found for gasoline: recovery was speeded a bit if detergent was added for brake fluid and motor oil. Nothing helped lessen damage from grease, and ten weeks were required for grass to regrow.

CALIFORNIA REPORT

Volume 31, Numbers 3 and 4 (summer and fall, 1981) of California Turfgrass Culture was received in June. A report on water usage by turfgrasses may be of particular interest.

In California, of course, some watering is necessary. Five different regimens were established, one being the control (typical watering "by sight", approximately equivalent to evaporation, around 52" per year). All treatments based upon sensing mechanisms utilized less water, in two cases only about half as much as the control. July and August were critical months, evaporation exceeding eight inches each month; even conservative watering schemes ran between four and five inches then.

Turf essentially of as good quality as the control could be obtained with far less water when irrigation was based upon devices sensing for dryness. St. augustinegrass showed good quality under all treatments, but bermudagrass had more invasion of Poa annua under a wetter regimen. Bermudagrass rooted more deeply than did st. augustine under all watering treatments.

Results were slightly different with the cool-season grasses (tall fescue and Merion Kentucky bluegrass). Tall fescue used more water than did bluegrass. Under the driest treatment Merion quality was poor and showed increased Fusarium disease. The wettest treatment developed weeds abundantly. The cool-season grasses seemed to require a bit more moisture than did the warm-season ones, even considering that they were grown at a test site where natural rainfall ran about 7" less annually. Surprisingly, variations in amounts of irrigation seemed to make little difference in grass performance, leading to the supposition that good quality can be maintained with considerably less watering than is normally practiced.

CENTRAL PLAINS REPORT

The Central Plains Turfgrass Foundation, in its June report, indicates that the 1981-82 winter was very severe on even the hardiest cultivars of bermudagrass and zoysia in eastern Kansas.

Insects have been causing some trouble. Treatments for chinch-bugs from May through September are suggested, bluegrass sod webworm in late June and July-August, buffalograss sod webworm early May and early June, billbug essentially from May through August, white grubs briefly in April and again July-October.

Among diseases, dollarspot outbreak has been severe, with Rhizoctonia brown patch troublesome. All lawngrasses growing in Kansas are susceptible to Pythium during times of heavy rain and high temperature. Helminthosporium (probably H.vagans) has been causing melting out of Kentucky bluegrass, and there has been some stripe smut in both eastern and western Kansas. Sounds like a "pestiferous year" there!

CLASSICAL BLUEGRASS INVESTIGATIONS SUMMARIZED

Hiesey and Nohs, Carnegie Institution of Washington (Stanford, California) recently summarized the classical gathering of data on Poa by Dr. Jens C. Clausen between 1943 and 1960. Hiesey was a partner with Clausen in much of this research. The accumulated findings were so voluminous that they had never been fully organized and evaluated. Now Hiesey and Nohs summarize much of it nicely in 120 pages, hard cover, "Experimental Studies on the Nature of Species", Carnegie Institute publication 636, Washington, DC, 1982.

Clausen's work had some bearing upon early turfgrass breeding; selections he worked with included Newport and Delta. He was most interested, however, in the basic question of whether crossing species might lead to more useful and better adapted hybrids for forage. The sheer magnitude of the collecting, crossing, selecting and planting out seems appalling even with today's computers,, so it is not surprising that the data has long lain without critical review. Clausen was able to concentrate upon only a few species, among them Kentucky bluegrass, Poa pratensis.

His crosses of P. pratensis were chiefly with P. ampla, P. scabrella, and a half dozen or so other "species" of Poa. In some cases quadruple combinations were made utilizing four species. In general P. pratensis was refractive as a seed parent, and had to be used chiefly as the pollinating parent. Judgment as to whether offspring were truly hybrids, or merely aberrants or apomictic offspring, required elaborate testing that included metaphase plates of root-tip cells. Even when hundreds of seedlings were secured, the result of interpollination within pollen-proof cages, generally less than a half dozen proved to be truly hybrids. Consider the tremendous effort that went into obtaining these few plants, all others, of course, being discarded.

Unfortunately, by and large, when hybrids were obtained they proved not widely useful. Under certain conditions some were superior to the parents, but the majority were weaker and less well adapted over a broad range of conditions, attesting to the efficiency of natural selection. Collections and plantings out tests included a wide range of environmental situations in many parts of the United States and Europe. The 2n chromosome number in one local population of P. ampla ranged from 56 to 145. Kentucky bluegrass is known to range between 28 and 124, and P. literosa (from the Auckland Islands) had 2n number of 263-265. No wonder that breeding work within Poa has been more empirical than the theoretical!

The Hiesey/Nohs book gives case histories on individual crosses, lists the locations from which the parents were derived, and the performance of the offspring. Histograms showing performance are given in many cases. Drawings depict the intermediate characteristic of hybrids as compared to parent species, and

CLASSICAL BLUEGRASS INVESTIGATIONS SUMMARIZED - Continued

photographs bring home the tremendous variability encountered. The study helps elucidate "agamic complex" breeding characterized by polyploidy, aneuploidy, strong apomixis, and so on. The studies provide basic background experiences, useful for Poa breeders, even though few practical results have ever been achieved directly from Clausen's work.

VIRGINIA RECOMMENDATIONS

Dr. L. H. Taylor, Professor of Agronomy - Turfgrass Breeding, in the June Tech Turf Topics, reports these 1982 turfgrass recommendations for Virginia. Dr. Taylor states (we list only cool-season species): "---Before a variety is recommended it must have given superior performance in tests with other varieties for at least 3 to 5 years and be commercially available---. Certification is our best guarantee of varietal purity. The following varieties were recommended as acceptable for sod certification in Virginia.

Kentucky Bluegrass - Individual varieties selected must make up no less than 10%, nor more than 35% of the total mixture on a weight basis.

Category I (20-100%) -- Proven Cultivars - Certified Adelphi, Enmundi, Georgetown, Merion, Plush, Sydsport, Vantage, Victa, or A-34

Category II (0-70%) -- Compatible Cultivars - Certified Birka, Cheri, Columbia, Eclipse, Glade, Parade, Ram I, Rugby, or Touchdown*

Category III (0-35%**) -- Optional Use Grasses - Certified Kenblue*, South Dakota Certified*, Certified Pennlawn Creeping Red Fescue

Category IV (0-35%) -- Promising Kentucky Bluegrass Cultivars - Limited Performance Data or Seed Availability - Certified America, Brunswick, Midnight

*Touchdown, Kenblue and South Dakota Certified Kentucky Bluegrass will be considered for removal from the list in 1983.

**In sod production or full sun, Pennlawn should not exceed 20% of the total mixture.

Tall Fescue

90-100% -- Certified Kentucky 31, Falcon, or Rebel Tall Fescue

0-10% -- Certified Kenblue or South Dakota Certified Kentucky Bluegrass

-- Promising Tall Fescue Cultivars - Limited Performance Data or Seed Availability

90-100% -- Certified Olympic

We believe that these varieties will also perform well for general turfgrass seedings, so for the most part, these are the 1982 turfgrass variety recommendations for Virginia."