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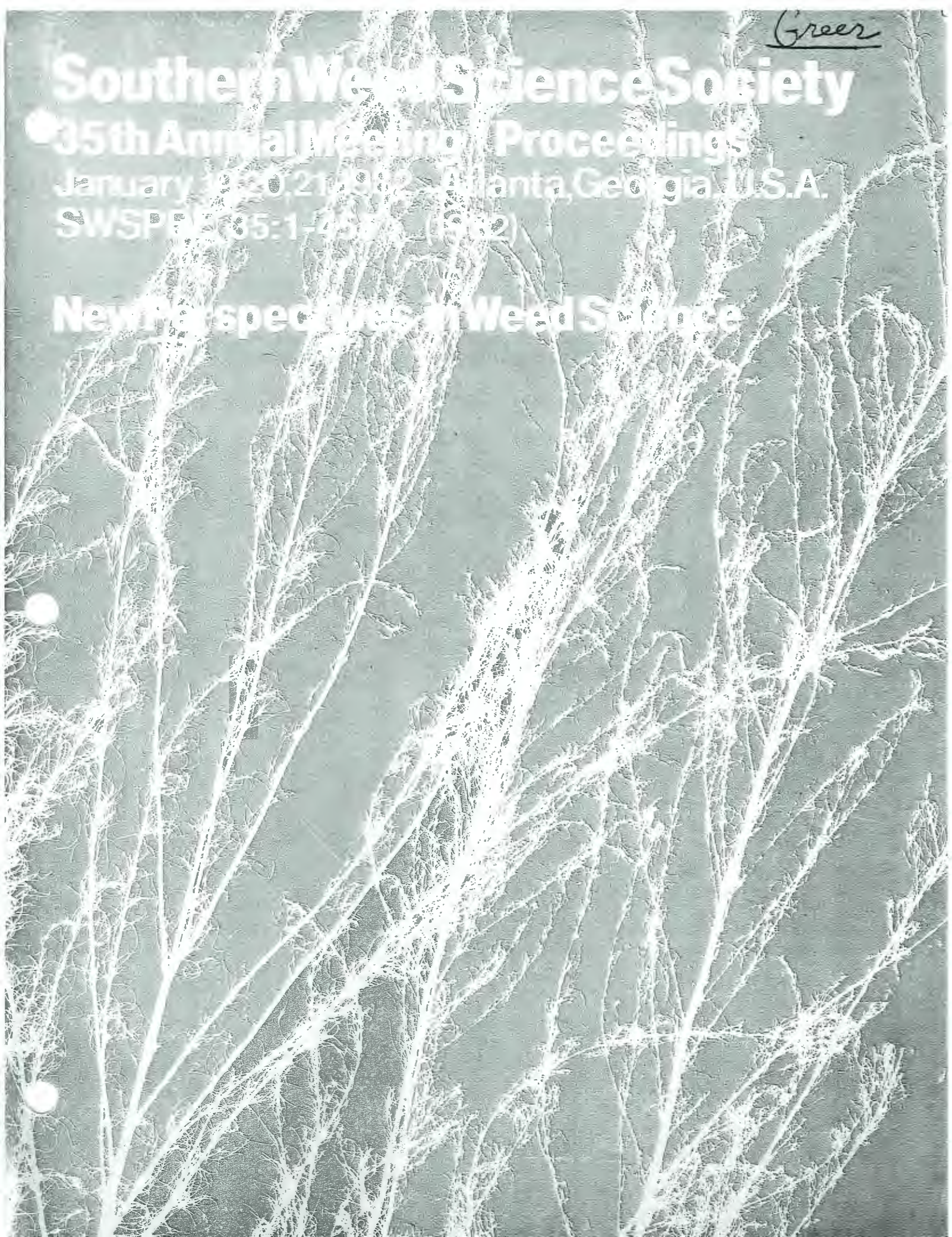
Southern Weed Science Society

35th Annual Meeting Proceedings

January 20-21, 1992 Atlanta, Georgia U.S.A.

SWSPP 95:1-437 (1992)

New Perspectives in Weed Science



MINUTES OF THE SWSS EXECUTIVE BOARD SUMMER MEETING
Atlanta, GA
July 17, 1981

The summer meeting of the SWSS Executive Board of Directors was called to order at 8:00 A.M., July 17, at the Atlanta Hilton Hotel, GA. Board members present were: Jerry B. Weber (President), John E. Gallagher (President-Elect), Chester G. McWhorter (Vice-President), Lawrence R. Oliver (Secretary-Treasurer), Larry R. Rogers (Editor), Claude J. Cruse (Business Manager), and Charles W. Swann (Chairman - Local Arrangements).

The Secretary-Treasurer's report that included a review of the financial statement from June 1, 1980 to May 31, 1981 was briefly discussed. Income currently has exceeded expenses by \$11,802. Expenses at the Southern Weed Meet for prizes and plaques totaled \$1,245.03. Of this amount, \$654.06 was obtained from contributions of the Georgia, Florida, and Alabama Weed Science Societies and from funds left from the contest last year. Thus, actual financial support of the meet by SWSS amounted to \$590.97.

The Editor discussed concern over the time lapse between turning the Proceedings over to the Business Manager and getting them printed and mailed to members. The delay has resulted this year from awaiting completion of the revised Manual of Operating Procedures, which in turn has delayed assembling and sending the Proceedings to the Business Manager as well as a too heavy workload at the printers in Champaign, IL. Rogers felt that with some changes, he could expedite assembling the Proceedings and allow the Business Manager to deliver the Proceedings to the printer during a slack period. Rogers recommended excluding the Manual of Operating Procedures from future Proceedings, thereby, reducing number of pages (40 to 50), cost, and assembling time. McWhorter moved and Gallagher seconded that the Manual of Operating Procedures not be included in future Proceedings. Motion passed.

Suggestions made to reduce editing and number of pages included changing the format spacing of the title, author, and author's address. Previously, approximately 7 lines were required, but now with only 3 lines required, 10 to 15 pages can be saved. Cutting, pasting, and retyping some papers results in further reduction in number of pages. The 1981 Proceedings contains 446 pages vs 504 pages in the 1980 Proceedings. Actual number of pages for the 176 papers in 1981 were 318 pages as compared to 182 papers requiring 357 pages in 1980.

Many authors did not follow typing instructions last year. In an attempt to alleviate this problem, the Editor will include typing and format instructions with the Call for Papers, Author Notification, and again in the Proceedings.

Another means of conserving space discussed was to instruct the authors not to place chemical names following the common names of herbicides. Rogers moved and McWhorter seconded that the chemical name be omitted after herbicides with approved common names in abstracts or papers, and an index be provided in the back of the Proceedings listing these herbicides. New experimental herbicides will still require chemical names following the parenthesis. Motion passed.

The President-Elect stated that Union Carbide wishes to finance the cash prizes for the student paper contest. Approximately \$1,000 would be necessary for the first (\$50) and second (\$30) place prizes. McWhorter moved and Rogers seconded that a letter be prepared for Charles E. Moore, Past President, accepting the offer from Union Carbide to give the prize money to the Student Interest Committee for the graduate student contest. Motion passed.

Progress in determining actual publication cost of the Research Report was reported by Gallagher. More accurate determination of cost will be possible because format changes have been initiated and because Weber and Gallagher are using Weber's secretary to do all typing.

The need to hand out an Awards Brochure containing pictures and write-ups for the three Award winners at the banquet was mentioned. McWhorter would need the winner's names approximately 30 days prior to meeting. The importance of being sure a group photograph of graduate student winners is taken for the Newsletter was mentioned. Oliver moved and Gallagher seconded that the Vice-President prepare an Awards Brochure with pictures and write-ups similar to the WSSA brochure. Motion passed.

The theme for the 1982 SWSS meeting will be "New Perspectives in Weed Science". The invited speakers will be Dr. Will D. Carpenter and Dr. H. Hanley Funderburk, Jr. McWhorter inquired about financial assistance for speakers and who has authority to pay the speakers. McWhorter moved and Rogers seconded that the Society provide travel expenses and a small honorarium for the invited speakers. Motion passed.

McWhorter emphasized the need for the Student Interest Chairman to give the Business Manager names of graduate students presenting papers so that luncheon tickets can be provided. The Business Manager will see that the invited speaker luncheon tickets are given to the Vice-President.

The order of speakers for the General Session was discussed. It was decided that the Welcome speaker be first, followed by the President's address, and then the two invited speakers.

The local Arrangements Chairman will be responsible for obtaining a Welcome speaker and a Luncheon speaker and for determining the luncheon menu. The luncheon ticket last year cost only \$6.00; however, this year the lowest priced suitable menu of southern ham will cost approximately \$13.30. Gallagher moved and McWhorter seconded that the SWSS underwrite 25% of the luncheon ticket in the future. Motion passed. This year, therefore, luncheon tickets will cost \$10.00.

The graduate student mixer following the first day of graduate student presentations was discussed. Last year an informal wine and cheese reception was held. This year the Society will ask industries to be sponsors and donate approximately \$1,000. The reception will be more structural this year. During the reception the President will give a short talk about the Society and introduce officers and industry personnel present. It was suggested that three to five sustaining industry members sponsor the reception each year with sponsorship rotating each year.

The graduate student room situation was discussed. It was pointed out that in the past considerable confusion and extra expense have resulted from improper handling of graduate student rooms. It has been difficult to determine whether the student is male or female when making room assignments or whether all eligible students, both potential and past winners, have sent in their room registration cards. This year these problems will be alleviated if possible.

The call for Papers and initial publicity about the SWSS meeting will be sent in mid to late August. Materials needed to facilitate this mailing were discussed and responsibilities assigned.

Material needed

Registration cards
Placement service sheet

Typing instructions
Call for papers
Resolutions and necrology
Title submission form
Ladies' program information
Newsletter

Responsibilities

Hotel will send to Business Manager
Placement Committee Chairman needs to be informed that the Society will use a contact box system similar to what was used by WSSA
Editor
Secretary-Treasurer
Resolutions and Necrology Chairman
Vice-President
Local Arrangements Chairman
Newsletter Editor

The entire mailing will be incorporated into the Newsletter format with main emphasis still being on the Newsletter. Each person is to complete his responsibility and send the material to either the Secretary-Treasurer, Vice-President, or the Newsletter Editor early enough that all can be sent to the Business Manager prior to August 17.

The program and the pre-registration forms will be mailed in early December.

David Olson, the Assistant Director of Convention Service for the Atlanta Hilton, stated that the hotel personnel will work very closely with the Society on space and room requirements. The Board members present then toured the meeting room facilities and found them to be excellent.

The Business Manager reported on Society transactions and changes to be made. He stated that the presently used financial statement categories need to be further subdivided so that more precise accounting of income and expenses can be made. For example, the new categories under publications would be Proceedings, Research Report, and other publications. Cruse also inquired as to who makes the decision on the selling price for the Research Report. He was informed that the Board makes this decision, and as discussed earlier, the cost is being further evaluated. Expenses from the annual meeting will be combined and listed as a separate entry. Travel will be listed as a separate entry. McWhorter moved and Oliver seconded that the Business Manager be authorized to utilize more effective and efficient accounting procedures. Motion passed. The Business Manager charges will be reduced due to lack of enough work from the Society's business. Income and expense balance sheets will be distributed at the annual meeting. However, they will come from Abernathy (past Secretary-Treasurer) instead of Cruse due to the auditing procedures.

Cruse asked about placing the SWSS phone number in Champaign, IL phone directory. It was decided that a phone listing was not needed.

The local Arrangements Chairman discussed the ladies' program. The importance of preconvention publicity was stressed so that members will bring their wives. Potential activities include a tour of the city and a color coordination program. However, the actual program will depend on pre-registration. Pre-registration forms for the ladies will be mailed in early December.

The complimentary room priority list was discussed. The local Arrangement Chairman will be informed that this year and in the future complimentary rooms should be provided for the following people in order as listed.

1. General session speakers
2. Distinguished Service Award winners
3. President - small suite
4. President-Elect
5. Vice-President
6. Secretary-Treasurer
7. Editor
8. Assistant or Executive Secretary
9. Local Arrangements Chairman
10. Past President

Rogers moved and Gallagher seconded that the meeting be adjourned. Motion passed.

MINUTES OF SWSS EXECUTIVE BOARD MEETING
Atlanta Hilton Hotel
Atlanta, Georgia
January 18, 1982

The executive meeting of the SWSS Executive Board of Directors was called to order at 1:30 p.m. on January 18, 1982. Board members present were: Jerry B. Weber (President), John E. Gallagher (President-Elect), Chester G. McWhorter (Vice-President), Lawrence R. Oliver (Secretary-Treasurer), Larry R. Rogers (Editor), Charles E. Moore (Past-President), Sheron McIntire (Member-at-Large), Don Murray (Member-at-Large), Don W. Gates (Member-at-Large), Harold D. Coble (WSSA Representative), Ford L. Baldwin (CAST Representative), Gene D. Wills (Constitution and Operating Procedure), and Bob Schmidt (Assistant Business Manager). Baldwin moved and Gallagher seconded that the proposed agenda be approved. Motion passed.

The Secretary-Treasurer reviewed minutes of the summer Board meeting. Many items required further discussion. Swann questioned the luncheon ticket policy. He thought that the Society payed all costs over \$10; however, the minutes read that the Society will cover only 25% of the luncheon ticket price, and that the Executive Board is responsible for the menu and its cost per person.

The Industry Reception for graduate students was discussed. LeBaron wrote each substaning member to inform them that their membership fee would be utilized to support the reception.

Arrangements for graduate student housing was discussed. The deadline for receiving room requests by graduate students will be the same date that title submissions are due. The Graduate Program Chairman needs to send an alphabetized list of graduate students entering the paper contest to the Local Arrangements Chairman and Secretary-Treasurer as soon as he is able to finalize the program. The Local Arrangements Chairman can then make sure all students requiring rooms have them. This duty will be added to the Graduate Program duties in the Manual of Operating Procedures (MOP).

The difficulty in obtaining a workable ladies program was discussed. Lack of preregistration makes it very difficult to determine the number of participants. A more informal format may be better accepted. Rogers moved and McWhorter seconded that the minutes be approved as read. Motion passed.

The financial statement for June 1, 1980 through May 31, 1981 was discussed by the Secretary-Treasurer. A need exists to expand the number of entries under income and expenses to more accurately depict functions of the Society and duties of the committees and officers. Baldwin moved and McWhorter seconded that the Treasurer's report be approved. Motion passed.

The Editor reported that changes initiated this past year reduced the Proceedings cost by \$3,700. He stated that the Proceedings should be sent much earlier this year now that the MOP will not be included in

the Proceedings. The MOP needs to state under duties of the Constitution and Operating Procedures Committee to provide an updated copy of the MOP to the Secretary-Treasurer after the annual meeting each year. The Secretary-Treasurer will then distribute the MOP to the officers, Board of Directors, and committee chairman. McWhorter moved and Gates seconded that the Editor's report be approved. Motion passed.

The Local Arrangements Committee report was given by Swann. He reported that everything was working smoothly but he needed to determine a minimum number of guarantees for the luncheon; the number decided on was 350. He also reported that audio visual equipment will be very expensive at this meeting and questioned the feasibility of purchasing some of our own equipment. Baldwin moved and Murray seconded that the Local Arrangements report be approved. Motion passed.

French presented the Graduate Program report. There will be eight divisions of 80 graduate students with 76 of these eligible for prize money. The divisions were adjusted so that no more than four students from the same university will compete against each other. In the future the Program Chairman and Graduate Chairman need to examine the program each year to prevent any such problems. As the winners are announced at the Awards Luncheon they will be asked just to stand. This year before the winning students can receive the prize money they will have to fill out a publicity form and have their picture taken.

Gallagher questioned whether the Chairman of this committee must come from the previous year's committee as stated in MOP. McWhorter moved and Rogers seconded that the year be removed from requirements for being a Graduate Program Chairman. Motion passed. It was agreed that the chairman should also come from the academic community. Oliver moved and Murray seconded that the Graduate Program report be approved. Motion passed.

Murray moved and Gates seconded that the WSSA report be approved. Motion passed.

The CAST report was presented by Baldwin. He stated that at present making decisions concerning membership placement on CAST committees has been between the President and himself. The next meeting will be in Washington, D.C. on February 23. As Baldwin cannot attend, Gallagher will pick someone else to attend. Gates moved and McWhorter seconded that the CAST report be approved. Motion passed.

The Awards Committee report was presented by Moore. Starting this year, Union Carbide will present a framed certificate to the winning graduate students. The certificates will be mailed after the meeting. Union Carbide has committed \$1,000 per year for 5 years. Weber will write and thank Union Carbide for providing the prize money. McWhorter moved and Moore seconded that the MOP be revised for the Secretary-Treasurer stating that the Secretary-Treasurer maintain correspondence or contact with the appropriate industries for continuing the Awards Program each year. Motion passed.

Rogers moved and Coble seconded that the Constitution and Operating

Procedures Committee report be approved. Motion passed.

The Finance Committee report was presented by Gallagher. As indicated in his letter, he questioned if the Finance Committee should be restructured. It is very difficult to evaluate exactly how much should be budgeted for the various committees. It was decided that the Finance Chairman, Secretary-Treasurer, and Assistant Business Manager meet to discuss a more effective means of determining budget figures.

Expenses have increased in the graduate student program and in local arrangements in particular, over the past several years. The method for handling the Weed Contest funds was questioned. However, the present method of listing funds received under the Weed Contest program was approved. The Weed Contest funds will be carried over from year to year and will not be used to defray other Society expenses. Coble moved and Gates seconded that the Finance Committee be approved. Motion passed.

The need to pick a Local Arrangement Committee Chairman for the 1984 meeting in Hot Springs, AR was discussed. It was also noted that plans for the Biloxi, MS meeting in 1983 appear to be operating smoothly. Klosterboer has agreed to be Local Arrangements Chairman for the 1985 meeting in Houston, TX. The Board approved unanimously.

The Meeting Site Committee for 1986 reported that three meeting sites were evaluated. Opryland Hotel, Nashville, TN; Sheradin Hotel in Orlando, FL; and the Marriott Hotel in Atlanta, GA; were the sites evaluated. The Committee chose Opryland as the meeting site for the second week of January. The room prices, transportation, and restaurants were determining factors. The second and third choices were the Sheridan and Marriott, respectively. The Board did not make final approval since the SWSS normally meets the third week of January. Thus, B. Rogers was requested to check on the third week for Opryland and report back on Thursday.

The Nominating Committee report was presented by Moore. Those elected were Sharon McIntire (Vice-President), Ray B. Cooper (Member-at-Large - Industry), and Elmer Ashburn (Member-at-Large - Academic). Baldwin moved and Rogers seconded that the officers be elected. Motion passed.

The Program Committee report was presented by McWhorter. Gallagher moved and Oliver seconded that the report be approved. Motion passed.

The Research Committee report was presented by Gallagher. The Research Report followed the identical format as used last year with only a few problems encountered. The summary of significant findings was used more and needs to be increased in use. The MOP needs to state that the Research Committee will not provide copies of the Research Report prior to the Annual meeting. A question arose as to who is using the Research Report? A thorough review of the future of the Research Report will be made at the summer Board meeting.

The Resolutions report was not given; however, a resolution of

Witt's to the Department of Public Information at the University of Kentucky was discussed. The Board decided that a letter of appreciation from President Weber would be best. A letter of appreciation for the accommodations of the Atlanta Hilton on behalf of SWSS will be sent by Weber if the meeting goes as planned.

The Southern Weed Contest Committee report was presented by Teem. The Board was informed about the financial conditions. He stated that it will require approximately \$7,000 to conduct the contest, and he feels that industry and state weed science societies will provide approximately \$8,000. If future financial support is required, the matter will be presented at the summer Board meeting. The need for MOP procedures was expressed. Teem stated that this had been sent to Weber instead of Wills. Coble moved and Wills seconded that the report be approved. Motion passed.

The Sustaining Members Committee report was briefly discussed by Gallagher. The idea of presenting sustaining members with a plaque to acknowledge their support was discussed. The plaque has been used by NEWSS and will be used by WSSA. It was stated that the plaque needs to be of nice quality and several ideas were presented. A cost, plaque design, and continuation procedure analysis will be determined before the summer Board meeting for final action. A committee of Gallagher, LeBaron, and Cruse will obtain the required information. Everyone indicated that the plaque was a good idea.

The Terminology Committee report was presented by Cargill. The committee reevaluated the previously published list of technical term definitions, added others, and combined them all into a new listing that will appear in the Proceedings. Moore moved and Coble seconded that the report be approved. Motion passed.

The Display Committee report was presented by Greer. He stated that the display area is a service of which only a few sustaining members are utilizing. The displays can only be educational. A decision by the Board as to whether this committee should be discontinued or made a sub-committee under the Sustaining Membership Committee or a standing committee will be made at a later date. Discussion of the situation in the industry section on Wednesday will help in the discussion. Gallagher moved and Oliver seconded that the report be approved. Motion passed.

The Long Range Planning Committee Report was presented by Frans. Six major recommendations were presented.

1. Meeting sites and rotation system: a) recommended continuation of a flexible rotation system, such as southeast, southwest and central portions of the southern region. b) recommended that the Site Committee negotiate final location based on a bidding system between 18 and 12 months prior to the actual meeting (to be announced at annual meeting 1 year prior to meeting in question), and c) recommended for maximum flexibility that the 2nd, 3rd, or 4th week of January be considered for meeting times.
2. Society membership and money management: Suggestion has been made

that we need to grow; therefore, we need to know the groups of people in attendance.

They a) recommend that SWSS make an analysis of membership attendees by job affiliation to determine trends and program for future growth, and b) recommended that Section VII, Developments from Industry, be revamped to include not only new herbicide developments but also new industrial techniques, such as ag chemicals marketing, and business management, to attract more dealers and distributors, and career opportunities in industry, in order to acquaint graduate students with industry. Such topics might be addressed through individual papers, selected symposiums from year to year, as the need arises.

They also recognized that graduate student programs are increasing in cost and it has been suggested that industry should help support this. However, industry already supports SWSS through individual and sustaining membership. Therefore, they recommended that if SWSS costs are increasing membership fees to cover the costs, and recommended that SWSS consider establishment of an endowment fund, to be used to support our graduate student and awards program and fund to be available to both individuals and companies for increased giving above current membership fees.

3. SWSS service: The committee recommended that our publications effort be increased. At present many of our publications relating to weed science do not even list our annual meeting. They also recommended that SWSS officers play a more active role in addressing significant events affecting herbicide and pesticide use in behalf of SWSS and weed science in general.

4. Society publications: It was recommended that total committee reports not be published in the Proceedings, and that only significant action of the Board and changes in the Constitution and By-Laws be included in the Newsletter.

5. Awards: They recommended the establishment of an Outstanding Young Industry Person Award to be recognized on a par with the Outstanding Young Weed Scientist Award. They suggested that an endowment fund on registration fees be used as the source of financial support for these awards.

6. Program: It was recommended that the Program Committee consider including times for informal group discussions on timely topics to be determined by Sectional Chairmen according to need.

Coble and Murray seconded that the report be approved. Motion passed. These recommendations will be further evaluated at the change-over Board meeting.

The following committee reports were not presented: Historical, Legislative, Newsletter, Placement, Public Relations, and Weed Identification. Therefore, these reports will only be reported at the Business meeting with no action being taken since they were not discussed by the Board prior to the meeting.

McWhorter reported that the Constitution and Operating Procedures Chairman serves on the Board without any vote. Parliamentary procedures states that the Chairman should have a vote. McWhorter moved and Gates seconded that duty number 3 in the MOP under Constitution and Operating Procedures be changed to read with vote. Motion passed.

The meeting was adjourned at 6:14 p.m.

GRADUATE PROGRAM COMMITTEE REPORT--Presented by C. M. French

Seventy-eight graduate student papers were presented in the Graduate Program Contest. Four were former first place winners; therefore, seventy-four were eligible for awards. The presentations were evaluated in eight divisions of 9 to 11 papers. Forty SWSS members volunteered their time as judges of the contest. First place and second place awards of \$50.00 and \$30.00, respectively, were given in each of the eight divisions. All students entering a paper in the contest received a complimentary ticket to the SWSS Luncheon. Winners of the respective divisions were:

Division 1 (Paper numbers 1-7 and 22-24, Agronomic Crops)

1st Place N. M. Hackett and D. S. Murray, Oklahoma State University, Stillwater, OK. Interference of Solanum spp. with spanish peanuts.

2nd Place M. A. Barker and L. Thompson, Jr., North Carolina State University, Raleigh, NC. Management of morningglories in soybeans.

Division 2 (Paper numbers 9-10 and 15-21, Agronomic Crops)

1st Place K. T. Winton and J. F. Stritzke, Oklahoma State University, Stillwater, OK. Control of pigweeds in established alfalfa.

2nd Place J. M. Goette, W. L. Currey, D. H. Teem, and R. C. Fluck, University of Florida, Gainesville, FL. Economics and energetics of weed control in soybean tillage systems.

Division 3 (Paper numbers 27-35, Horticultural Crops)

1st Place N. I. Rhodes and H. D. Coble, North Carolina State University, Raleigh, NC. Weed management in cultivated sumac.

2nd Place D. M. Caviness, R. E. Talbert, and G. L. Klingaman, University of Arkansas, Fayetteville, AR. Herbigation and spray application of herbicides on container ornamentals.

Division 4 (Paper numbers 50-56, 61, and 161, Physiology)

1st Place B. Stuart, K. S. Harrison, J. R. Abernathy, and C. W. Wendt, Texas Agricultural Experiment Station, Lubbock, TX. Water relations of cotton-pigweed competition.

2nd Place (tie) D. B. Reynolds, University of Arkansas, Fayetteville, AR; R. H. Crowley, Velsicol Chemical Corporation, Monticello, AR; and L. R. Oliver, University of Arkansas, Fayetteville, AR. Johnsongrass (Sorghum halepense) interference with soybeans.

2nd Place (tie) T. N. Tripp and P. A. Banks, University of Georgia, Athens, GA. The effect of tall morningglory competition with soybeans.

Division 5 (Paper numbers 62-66 and 68-73, Physiology)

- 1st Place J. M. Rosemond, P. S. Zorner, W. W. Witt, and G. L. Olson, University of Kentucky, Lexington, KY. Absorption and translocation of linuron in nimblewill (Muhlenbergia schreberi) and Kentucky bluegrass (Poa pratensis).
- 2nd Place (tie) J. D. Bush, J. R. Abernathy, and J. R. Gipson, Texas Agricultural Experiment Station, Lubbock, TX. Adsorption and mobility of trifluralin (TREFLAN) and pendimethalin (PROWL) in west Texas soils.
- 2nd Place (tie) D. W. Rushing and D. S. Murray, Oklahoma State University, Stillwater, OK. Effects of moisture stress on the activity of BAS 9052 (POAST).

Division 6 (Paper numbers 76-78, 81-84, and 86-87, Agronomic Crops)

- 1st Place J. Driver and R. E. Frans, University of Arkansas, Fayetteville, AR. Selective postemergence control of johnsongrass in soybeans and cotton.
- 2nd Place J. W. Keeling and J. R. Abernathy, Texas Agricultural Experiment Station, Lubbock, TX. Crop and weed response to rope and sponge herbicide applications.

Division 7 (Paper numbers 90-95 and 98-101, Agronomic Crops)

- 1st Place D. T. Newcomer and M. G. Merkle, Texas Agricultural Experiment Station, College Station, TX. Control of johnsongrass in grain sorghum with SD-58525.
- 2nd Place (tie) D. R. Shaw and T. F. Peeper, Oklahoma State University, Stillwater, OK. The effect of GAF 141 on herbicides used for field bindweed control.
- 2nd Place (tie) J. D. Green and W. W. Witt, University of Kentucky, Lexington, KY. Extended johnsongrass (Sorghum halepense) control in corn with thiocarbamates and R-33865.

Division 8 (Paper numbers 116-121 and 122-127, Physiology)

- 1st Place J. H. Jordan, W. L. Currey, and D. H. Teem, University of Florida, Gainesville, FL. Soybean row spacing and herbicide programs for sicklepod control.
- 2nd Place M. L. Fischer and T. F. Peeper, Oklahoma State University, Stillwater, OK. Determination of metribuzin (SENCOR, LEXONE) tolerance in wheat.

Honorable L. Hodges, D. E. Davis, and E. A. Curl, Auburn University,
Mention Auburn, AL. The effects of alachlor (LASSO) and metolachlor (DUAL) on Rhizoctonia solani in culture.

Respectfully submitted,

D. A. Addison	T. J. Runyan
D. E. Dougherty	A. D. Worsham
M. L. Ketchersid	C. M. French, Chairman

HISTORICAL COMMITTEE--No Report

LEGISLATIVE COMMITTEE REPORT--Presented by Charles T. Lichy

In 1981, as a consequence and reflection of the inauguration of the new administration of President Reagan and his emphasis on de-regulation and interferences by government, very little activities were observed in the legislative area. In the introduction of new legislation, however, several minor adjustments have been made in existing legislation. These are as follows:

West Virginia recently held a hearing to evaluate its 1981 regulation governing application of herbicides on utility rights-of-way. Louisiana is considering similar regulations.

During 1982, the states of Arkansas and Texas do not plan regular legislative sessions, but other states will be carrying over bills not acted upon in 1981.

Completion of the FIFRA markup will be delayed until sometime after Congress returns from holiday recess in late January. House Subcommittee on Department Operations, Research and Foreign Agriculture last met on December 9, 1981, but failed to complete action on a package of proposed amendments.

Latest registration guidelines will be treated as guidelines, not rules. If change in their status to emphasize this point is necessary, then their status will be changed. EPA will also seek to find categories of pesticides for which regulatory requirements can be eliminated or substantially reduced where it is possible to do so without endangering public health or the environment. Coupled with increased peer review, EPA will modify its risk assessment criteria. Now it uses essentially a one-hit worst case model. In the future, it will use several models in an attempt to get broader perspectives. Also where possible, EPA intends to defer to the states to do risk assessment and then will work with the state and industry to solve the problem as partners.

We also recommend that the Newsletter Editor be in attendance at Executive Board meetings at the annual society meeting and during the summer meeting in order for the Editor to be better informed on Society events.

Respectfully submitted,

J.R. Martin
L. Thompson
T.H. Wright
W.W. Witt, Chairman

NOMINATING COMMITTEE REPORT--Presented by C.E. Moore

Nominations for incoming Society officers were solicited from the membership, the Board of Directors and the Nominating Committee. From the names submitted for consideration, the Nominating Committee selected two candidates from which the membership selected the new officers by mailed ballot. The officers elected were:

Vice President - Sheron McIntire
Member-at-Large (industry) - R.B. Cooper
Member-at-Large (academic) - Elmer Ashburn

Respectfully submitted,

Ralph Baker
Howard Greer
Cleston Parris
David Teem
C.E. Moore, Chairman

PLACEMENT COMMITTEE REPORT--Presented by Ted Whitwell

The Placement Service had a total of 54 individuals desiring positions and 14 positions available. A contact message system was used for communications between interested parties. Information will be passed on to the Placement Services of the Weed Science Society of America.

Respectfully submitted,

Lynn Kitchen
Charles J. Peter
Ted Whitwell, Chairman

RESOLUTION AND NECROLOGY COMMITTEE REPORT--Presented by Rupert D. Palmer

A. Resolution:

1. Commendation for an effective meeting.

WHEREAS the facilities, arrangements, and program for the 35th Annual Meeting for the Southern Weed Science Society have been of excellent quality, and

WHEREAS a well organized meeting is important for the continued development of the Society and is appreciated by its members, therefore be it

RESOLVED that the membership of the Southern Weed Science Society commend Chairman, Charles W. Swann and members of the Local Arrangements Committee, and Chairman C.G. McWhorter and members of the Program Committee, for their outstanding efforts in behalf of the Society.

B. Necrology:

There were no reports of any deaths of any members of the Southern Weed Science Society since the 1981 Meetings.

Respectfully submitted,

G.E. Coats

R.H. Crowley

R.D. Palmer, Chairman

SOUTHERN WEED CONTEST COMMITTEE REPORT--Presented by D.H. Teem

Students from universities across the south met June 25 & 26, 1981 near Albany, Georgia to compete in the Second Annual Southern Weed Contest. Participating in the 1981 contest were students from: Auburn University, University of Arkansas, Clemson University, University of Florida, University of Georgia, Mississippi State University, University of Tennessee, and Virginia Polytechnic Institute and State University.

Following two days of spirited competition and getting acquainted with other students and coaches, the teams and individuals with the highest scores were:

Team Awards - 1st Place: University of Florida - Wayne Currey, Coach
2nd Place: Auburn University - Harold Walker, Coach
3rd Place: University of Arkansas - Dick Oliver, Coach

Individual Awards - 1st Place: Jerry Hulbert, University of Florida
2nd Place: John Goette, University of Florida
3rd Place: Larry Hacker, University of Florida

Team and individual winners each received plaques and cash awards while the "Broken Hoe Trophy" was awarded to the University of Florida.

The 1981 contest was hosted by Lilly/Elanco at their Georgia Research Station. Food and lodging for contestants and coaches was provided by Lilly/Elanco. Cash awards and trophies were provided by the Southern Weed Science Society and the Florida, Georgia, and Alabama Weed Science Societies. The 1982 contest will be hosted by the Mississippi Agricultural and Forestry Experiment Station at Stoneville and commitment of sufficient funds for the 1982 contest has been secured from several companies.

A location for the 1983 contest will be selected prior to the 1982 contest in order that a representative from the 1983 location can become familiar with the requirements for hosting the contest.

Respectfully submitted,

P.A. Banks	J.M. Goette
R.B. Cooper	L.R. Oliver
W.L. Currey	R.H. Walker
D.H. Teem, Chairman	

SUSTAINING MEMBERSHIP COMMITTEE REPORT--Presented by Homer M. LeBaron

We have made some major efforts to canvas all industries located in the Southern States or who conduct significant business related to herbicides or weed control in the SWSS region in an effort to obtain new Sustaining Members. As expected, many of them have not joined, but some have paid Sustaining Membership dues, and many have learned more about the SWSS. Several of those not joining SWSS have expressed interest in attending our annual meetings and/or learning more about our activities and services.

The major activities and accomplishments of the Sustaining Membership Committee during the past year can be summarized as follows:

Mailings:

- July 13, 1981 - 100 letters sent to 1980-81 Sustaining Members
- July 13, 1981 - 75 letters sent to previous list of prospective members
- Sept. 25, 1981 - 25 letters of reminders sent to 1980-81 members who had not yet paid
- Sept. 25, 1981 - 70 letters of reminders sent to previous list of prospective members who had not responded
- Oct. 20, 1981 - 65 letters sent to new list of prospective members
- Dec. 14, 1981 - 116 letters sent to second new list of prospective members
- Jan. 12, 1982 - 102 letters sent to all current paid Sustaining Members

MINUTES OF THE SWSS EXECUTIVE CHANGE-OVER MEETING
Atlanta Hilton Hotel
Atlanta, Georgia
January 20, 1982

The change-over meeting of the SWSS Executive Board of Directors was called to order at 8:00 a.m. on January 20, 1982. Board members present were: John E. Gallagher (President), Chester G. McWhorter (President-Elect), Sheron McIntire (Vice-President), Lawrence R. Oliver (Secretary-Treasurer), Larry R. Rogers (Editor), Jerry B. Weber (Past-President), Mike Chandler (Member-at-Large), Ray Cooper (Member-at-Large), Elmer Ashburn (Member-at-Large), Harold D. Coble (WSSA Representative), Ford L. Baldwin (CAST Representative), and Gene D. Wills (Constitution and Operating Procedure). Baldwin moved and Weber seconded that the proposed agenda be approved. Motion passed.

The Publications Committee Report was presented by Monaco. Revision of the Research Manual was discussed. An 8-page report concerning SWSS publications has been completed. A revision with additional topics such as tissue culture, computers in weed science, weed biology, and HPLC was recommended. An honorarium was suggested for the authors. A task force will be picked to obtain an editor and at least two committee members. Several names were suggested as possible editors. Once the editor and committee are picked they will report to the Board.

Benny Rogers of the Site Selection Committee for 1986 reported back to the Board that he had a letter from Opryland confirming either the second or third week in January, 1986 for \$50/room (single or double). Total number of rooms available is 1080. The Society may want to adjust meeting dates so that the membership could attend the Grand Old Opry on Friday evening. The committee again recommended that the SWSS meet in Nashville (first choice) or in the Orlando Sheridan Hotel (second choice). Orlando would be more expensive. McWhorter moved and Cooper seconded that the SWSS go to Opryland in Nashville in 1986. Motion passed. Claston Parris was suggested as Local Arrangements Chairman.

Swann made a final report to the Board concerning the ladies programs. The program and tour was not very well attended. Next year the Local Arrangements Chairman will utilize preregistration to determine if the Ladies Program will be held. If the response is low, only coffee and donuts will be provided. More advanced publicity in the Newsletter will be tried.

The summer Board meeting will be August 3 at Biloxi, MS.

The problem of more accurately recording expenses from each committee to aid in proposing the budget each year was hopefully solved. The Secretary-Treasurer will maintain individual records for each committee while the records kept by the Business Manager will be grouped together under the column "Committees". Those committees whose expenses occur only at the annual meeting will not be included.

The selection of the 1987 Site Selection Committee was discussed. A more flexible scheduling was also discussed. The Business Manager will

be asked to help the Board determine advantages and disadvantages. An Ad Hoc Committee of Past Presidents and Business Manager will be formed to review and recommend the site selection procedure and make a report of the summer Board meeting. Moore will serve as Chairman and Frans as one of the Committee members.

The Long Range Planning Committee report was discussed further. The need exists to determine the composition of our membership and types of programs desired. An industry's educational program section for graduate students was thought to be desirable but not a section concerning the marketing aspect of the herbicide industry. It was mentioned that Becton's Presidential Address in 1977 contained a membership make-up listing. Gallagher will check it out and ask Cruse about obtaining the desired information from registration forms.

The need for Committee Co-Chairman was discussed. The Co-Chairmanship would give continuity to such sections as Industrial. McIntire will decide on this matter later.

A more conscious effort must be made by our Society to publicize before and during our meeting in order to receive more public interest.

The establishment of an endowment fund for the SWSS was further discussed. The fund would increase graduate student support, increase the awards program, and would enable retiring members to will a portion of their estate to the Society. It was recommended that an Ad Hoc Committee of Merkle, Frans, LeBaron, and Cruse be established to evaluate the feasibility of an endowment fund and report to the summer Board meeting. If approved, a ballot would have to be sent to members for their approval.

Coble questioned whether graduate students should be allowed to present papers on research that they did not conduct personally. All agreed that a statement should appear in the MOP indicating that research presented must have been conducted by the student. This statement should be underlined. An evaluation of the grading sheet is to be made by the Graduate Student Chairman. Graduate student certificates will be sent out when completed.

An Outstanding Young Weed Science Award for Industry was discussed. The Award would give continuity to the Awards program. However, several felt that the award was not needed. Weber's Committee will further evaluate the suggestion and report its findings by May 15 so that the Board can consider this matter at the summer Board meeting.

The Southern Weed Meet Committee asked for a special logo and stationery for their committee. The Board stated that the SWSS already has a logo and felt it should be utilized for all Society functions. The Weed Meet Committee will utilize the present stationery and type Southern Weed Meet above or below the logo. The need for the Southern Weed Meet Committee to have objectives and committee duties placed in the MOP was discussed. Whether this committee wants to be a standing committee or a sub-committee was discussed. If committee status is preferred, the by-laws must be changed. It was also suggested that WSSA sponsor a National

Weed Meet.

The SWSS stationery will be changed to have the logo and officers addresses and phone numbers across the top of the page. The Business Manager's address will be deleted.

Preregistration fees were discussed. The fees were considered to be at the proper level for the time being.

Pricing of the Research Report needs to be adjusted. At present the Society is selling it at a loss. McWhorter moved and Asburn seconded that the Research Report be sold at the next highest dollar value above cost to cover printing and postage. Motion passed. Cost of the mailed copies must also reflect cost increases.

Participants in the Horticulture section have stated by letter that they were being discriminated against by not allowing their section to run on consecutive days. They would prefer their section to run either Tuesday and Wednesday or Wednesday and Thursday. This adjustment will be difficult to achieve. McIntire will evaluate and Locascio will be placed on the program committee.

The Section Chairman will be sent extra copies of the SWSS Newsletter for distribution purposes and to hopefully help increase interest in the Society and its meetings.

Sustaining member recognition plaques were discussed. The possibility of the plaques will be reviewed so that a decision can be made at the summer Board meeting. Presentation of such plaques would help recognize sustaining members, retain sustaining members, and thereby ease the task of obtaining funds. McIntire moved and Weber seconded that the meeting be adjourned at 10:45 a.m. Motion passed.

INTRODUCTION

It has been a distinct pleasure serving as President of the Southern Weed Science Society this past year. There have been no disappointments thus far and I believe that this has been a very successful year for the SWSS.

It is my intention to try to accomplish three things in this presentation. First, I would like to enumerate six items which I feel are hindering the development of weed science as a scientific discipline and request that our two main speakers comment on some of these points. Second, I would like to present a brief overview of some of the activities of man in which weeds are an active participant. Lastly, I would like to show you some of the lesser known activities of man in which weeds have been involved. In addition, I would like to show you how weeds have been observed and recorded in some of the great works of art.

ISSUES THAT HINDER THE DEVELOPMENT OF WEED SCIENCE

1. Most of the members of this Society that work at universities or in government and whom I have known for nearly 20 years, think of themselves as weed scientists, but many of them refer to themselves as professors of agronomy, crop science, botany, plant physiology or some name other than weed science. I believe it would further the development of weed science if weed scientists referred to themselves as weed scientists.

2. There are no civil service job categories for weed scientists and an individual who is hired to carry out the duties of a weed scientist must do so as an agronomist, plant physiologist, botanist or ecologist. I believe it would further the development of weed science if the Civil Service Commission recognized weed science as a scientific discipline and established job categories for our scientists.

3. At the universities, requests for grant proposals for research involving weed control using insects are sent to departments of entomology and requests for proposals for research involving weed control using plant diseases are sent to plant pathology departments. However, requests for proposals using chemicals for weed control are not sent to chemistry departments but rather to the weed scientists. I believe it would further the development of weed science if university and government administrators recognized that it is weed scientists who have the responsibility of studying the weeds and all of the methods which are used to control them.

4. The other pest related sciences have established scientific names identifying their disciplines. Insect scientists are referred to as entomologists and plant disease scientists refer to themselves as plant pathologists. I believe it would further the development of weed science if weed scientists adopted a scientific name for their discipline.

5. The National Academy of Sciences is divided into the following twenty-three scientific sections (2): (1) anthropology; (2) applied biology, (3) applied physical and mathematical sciences; (4) astronomy; (5) biochemistry; (6) botany; (7) cellular and developmental biology; (8) chemistry; (9) economic sciences; (10) engineering; (11) genetics; (12) geology; (13) geophysics; (14) mathematics; (15) medical genetics, hematology, and oncology; (16) medical microbiology and immunology; (17) medical physiology, endocrinology, and metabolism; (18) neurobiology; (19) physics; (20) physiological and pharmacological sciences; (21) population biology, evolution, and ecology; (22) psychology; and (23) social and political sciences. None of these sections accurately identifies either the field of agriculture or of weed science. I believe it would further the development of weed science if weed scientists would provide the National Academy with evidence that weed science is an established scientific discipline and request due recognition. It would be worthwhile to adopt a scientific name before this action is undertaken.

6. Some weed scientists define a weed as a plant out of place when they really mean a crop out of place. A preferable definition of a weed would be "an undesirable, unattractive, troublesome, injurious, or poisonous plant." I believe it would further the development of weed science if weed scientists would adopt a more accurate definition for the word weed.

Those are six points on which I have asked our main speakers to comment. I should now like to move on to my second objective and review those areas where weeds are involved in the activities of man.

WEED SCIENCE IS A BROAD SCIENCE

All of you are familiar with the many activities involving the control of weeds in farm crops, home lawns, walkways, forests, ponds, waterways, and other noncrop areas; and most of you are familiar with some of the research on weeds that poison livestock in our western states. Many of you may not be familiar with research activities on allergenic, corrosive, phototoxic, and teratogenic weeds and other weeds that are undesirable, unattractive, troublesome, injurious, or poisonous.

ALLERGENIC, CORROSIVE, AND POISONOUS WEEDS

There are approximately 50 species of weeds which are called the "hay fever weeds." These weeds include the ragweeds that produce pollens which irritate the mucous membranes and debilitate approximately 20% of our citizens.

There are approximately 20 species of weeds, including poison ivy, poison oak, and nettles, which are poisonous to the touch. These are termed the "corrosive weeds" and they cause skin blisters which in many cases develop into severe dermatitis and keloidal scars.

Weeds like halogeton kill livestock and weeds like veratrum cause congenital malformation of the offspring. At least 25 to 50 species of weeds which are poisonous, teratogenic, or phytotoxic to livestock are found in nearly every state in the United States. These toxic weeds are responsible for the loss of millions of dollars in dead and injured livestock and reductions in meat production each year. More weed science research is needed in every state to study and develop methods to control these injurious and debilitating allergenic, corrosive, and poisonous weeds.

MEDICINAL WEEDS (HERBS)

It has been known for centuries that certain weeds contained substances that were both beneficial and toxic to man. Common mullein has long been known to contain substances which relieve respiratory problems. Jimsonweed was known in ancient times as the "assassins weed" because it was used to poison one's adversaries. It is now used as a source of atropine, a drug useful as a topical anesthetic in eye surgery. There are at least 50 to 100 weed species which are known to contain aromatic substances which have beneficial effects on human health. The majority of these weeds are harvested in the wild and little is known about their life cycles and their physiology. Weeds scientists could contribute greatly by researching these potentially useful medicinal weeds.

WEEDS IN RELIGION AND HISTORY

Most of you are probably familiar with the references to weeds in the Bible. The references that I refer to are as follows:

"The kingdom of heaven is likened to a man that sowed good seed in his field. But while men were asleep, his enemy came and oversowed tares among the wheat and went his way. And when the blade was sprung up, and had brought forth fruit, then also appeared there the tares." (Matthew 13:24-25.)

"He that soweth the good seed, is the Son of man. And the field is the world. And the good seed are the children of the kingdom. And the tares, are the children of the wicked one. And the enemy that sowed them, is the devil." (Matthew 13:37-39.)

It is unfortunate that Matthew did not provide us with one more reference to tares which might have been written as follows:

"He that studies the tares and works to remove them from the field does a noble thing. And he works for the Son of man. And from this day forward, he shall be known as a Tareologist. And his field of study shall be called Tareology."

I say it is unfortunate that Matthew did not make this reference because I believe that the adoption of a scientific name for weed science would be beneficial in the further development of the discipline. While "tare" in some translations of the Bible refers to all "weeds", in some versions it refers to the poisonous darnel (Lolium temulentum L.), a weed somewhat similar to cheat (1). The word was apparently derived from the Herbal of Dioscorides where as one of the most ancient weeds, the darnel was referred to using the Greek words "Aira" and also "Thyaron." The Romans referred to the weed as "Lolium" and as "Tares" (1). In any case, the term would serve as a good base for a scientific name. Lolium temulentum is one of the oldest weeds of antiquity. It has been found in fields and other cultivated places which have been encountered since prehistoric times, but which probably did not exist before man. Remains of the weed have been found in ancient lake-dwelling areas of Switzerland.

In terms of the Darwinian concept of the struggle for existence, weeds as a class represent the most successful plant forms that have evolved. And, in paraphrasing a poem by John James Ingalls entitled "Grass":

'Weeds' are the forgiveness of nature,
 Her constant benediction,
 Fields trampled with battle, saturated with blood,
 Torn with ruts of cannon,
 Grow green again with 'weeds'
 And carnage is forgotten.
 Streets abandoned by traffic,
 Become 'weed'-grown like rural lanes,
 And are obliterated,
 Forests decay, harvests perish, flowers vanish,
 But 'weeds' are immortal.
 Sown by the winds,
 Propagated by the subtle horticulture of the elements,
 Which are their ministers and servants,
 They soften the rough outlines of the world,
 Their tenacious fibers hold the earth in its place,
 And prevent its soluble components,
 From washing into the sea.
 They invade the solitude of deserts,
 Climb the inaccessible slopes,
 And forbidding pinnacles of mountains,
 Modify climates and,
 Determine the history, character, and destiny of nations,
 Unobtrusive and patient,
 They have immortal vigor and aggression,
 Banished from the thoroughfare and the field,
 They abide their time to return,
 And when vigilance is relaxed,
 Or the dynasty has perished,
 They silently resume the throne from
 Which they have been expelled,
 But which they never abdicate.

With the remaining time that I have, I would like to show you some of the great works of art which involve weeds.

WEEDS IN ART

Each of you has visited an art museum and enjoyed the great paintings by the old masters. However, none of you probably examines paintings in the same way that I do. Nearly 30 years ago, while I was visiting an art museum in Tokyo, Japan, I noticed that some artists were exceptionally good botanists while others were very poor. In addition, I noticed that the weeds in some paintings appeared to have been put there for a particular purpose or were somehow symbolic. Over the years, I have visited many art museums around the world and I have taken thousands of pictures. I'd like to show you a few of my slides. In most cases, I have selected two pictures to illustrate each point that I wish to make.

The earliest European paintings (1400's) were primarily of the religious type and weeds which were present were rather sparse and appeared to be growing out of rock or non-soil. For example, in the painting entitled "Crucifixion" by Carlo Crivelli you will notice the very sparse weeds and the lack of any texture or profile in the soil. In another painting entitled "The Disillusioned One" by Ferdinand Hodler, you see the presence of a few lowly weeds.

In other religious paintings, I noticed that certain lawn weeds were commonly evident. For example, in the three panel triptych entitled "Pieta, St. John and St. Catherine" by the Master of St. Lucy Legend, you will see dandelion and broadleaf plantain at the feet of Christ. In another entitled "The Flight into Egypt" by Vittore Carpaccio, you will notice the very evident broadleaf plantain and a variety of lawn weeds.

In many of the religious paintings, the weeds appeared to be symbolic. For example, in "Hagar and the Angel" by Pieter Lostman and in another entitled "The Hermit" by Gerard Dou, you will notice the obvious thistles in the foreground. In his painting of a "Self-Portrait" Albrecht Durer painted himself holding a thistle-like plant of the species Eryngium which I have since learned was once a symbol of fidelity.

Albrecht Durer in his painting entitled "The Large Tuft of Grass" included a wide selection of meadow grasses and weeds, including dandelion and broadleaf plantain, which were botanically correct in every detail. Durer might well have been the greatest weed painter who ever lived.

In the 1700 and 1800's, artists included many of the most prevalent noxious weeds of the day in their landscape paintings and in paintings of agricultural scenes. For example, thistles and dandelions are vividly apparent in a painting entitled "The Man with the Hoe" by Jean Francois Millet. And field bindweed was included in a painting entitled "Ears of Corn" by Vincent Van Gogh. Common mullein is a very apparent weed in a painting entitled "View on the Schuykill" by John Neagle, and yarrow, curly dock, and milkweed are present in one entitled "Strayed Sheep" by William Holman Hunt.

In a painting, consisting of three agricultural scenes, entitled "Sembradoras" Pedro Leon Castro illustrated the importance of weeds in agriculture. One scene shows a woman sowing, another shows several women harvesting, and the final scene shows a woman hoeing weeds.

Terrestrial weeds are not the only ones recorded in the works of art. Aquatic weeds made up a major portion of certain paintings, such as one entitled "Ophelia" by John Everett Millais and another entitled "The Lady of Shalott" by John William Waterhouse.

Weeds were commonly included not only in rural scenes but in urban paintings as well. Many of the common lawn weeds including crabgrass, dandelion, yarrow, milkweed, and plantain are present in the painting entitled "Dinner on the Hotel Lawn" by Sir Stanley Spencer, and one entitled "Picnic Near Mount Mansfield, Vermont," by Jerome Thompson.

Weeds apparently created a problem by growing in the cracks of sidewalks and patios in ancient times as well as they do in present time as evidenced in a painting by Jan Gossaert entitled "The Adoration of the Kings" and in another by Hispano entitled "The Adoration of the Magi."

In my tours, I also observed that weeds were commonly included in the background of outdoor portraits either because they were indigenous to the area or because they were symbolic. For whatever reason, Charles Willson Peale included

a large jimsonweed plant in his painting of "John Beale Bordley," and Thomas Gainsborough included a large burdock in his painting of "Sir Benjamin Truman."

Weeds have also been included in the paintings of battlefields and in other matter pertaining to wars. Hector Poleo included a thick stand of broad-leaf and grassy weeds in his painting of a cemetery entitled "Ocaso" which in Spanish means decadence or decline.

In selected paintings, I observed that weeds played a primary role. For example, honeysuckle and an unidentified perennial vine were used to bind the main character in Jean-Baptiste Camilles' painting entitled "Silenus" and several large burdock and morningglory plants were included for esthetic balance in the foreground of the Albert Cuyp painting entitled "Lady and Gentleman on Horseback."

In numerous other paintings, weeds were used to frame the picture, as is apparent in Richard Dadd's painting entitled "The Fairy Feller's Master-Stroke."

In summary, it is clear that weed science is a very old and broad based science, and there are many activities of man in which weeds are involved but in which weed scientists have not yet made their contribution. I believe it would be of immense benefit to mankind if weed scientists would become involved in these lesser known activities.

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NEW PERSPECTIVES IN WEED SCIENCE:
A VIEWPOINT FROM ACADEMIA

H. Hanly Funderburk, President
Auburn University

Agriculture, and in particular the discipline of Weed Science, has changed dramatically since I left the research laboratory in 1968 to join the ranks of college administrators. In fact, at that time, the discipline was just beginning to be recognized by the scientific community.

Weed scientists were few in number and generally isolated in their own institutions. During the past 14 years, you have grown in numbers, become recognized as a major factor in increasing agricultural productivity, and appreciated for the tremendous impact you have on American agriculture. The regional and national weed science societies are among the strongest in the agricultural scientific community and play a key role in the Intersociety Consortium for Plant Protection and the Council for Agricultural Science and Technology.

To help us recall how things were when I was still active in weed science, think about the time:

*When 2,4,5,-T was still 2,4,5,-T and not "Agent Orange"--and still a "good guy" for everyone.

*Before Treflan--imagine farming without this and related dinitroaniline herbicides.

*RPAR (Rpar) was still an unborn idea in the mind of a Washington bureaucrat.

*When Don Davis wasn't even thinking about retirement.

*When there was no Southern Weed Science Laboratory.

*When Southern Weed Science Society meetings were in places like Chattanooga, Tennessee; Jackson, Mississippi; and St. Petersburg, Florida.

*When Walt Porter, my Ph.D. major professor, in his SWSS presidential address was asking such questions as "What can the Southern Weed Conference do in the future?"

Each of you should take great pride in the many worthwhile accomplishments you as individuals and as an organized body have made since the Southern Weed Science Society came into being. Such rapid progress, widely recognized by almost everyone and questioned by none, is unparalleled in the history of almost any scientific discipline.

Your organization really began on June 19, 1948, at the Delta Branch Experiment Station in Mississippi, when the first "Weed Conference" was held. This conference was the forerunner of the Southern Weed Conference and later the Southern Weed Science Society. This organization, along with other regional weed science organizations, really paved the way for the Weed Science Society of America.

I am happy to have been a part of Weed Science in those early days when the groundwork was being laid for a tremendously important scientific discipline. My research on such intriguing questions as mode of action of phenylurea herbicides; metabolism and degradation of atrazine and simazine by corn and other plants; effects of dichlobenil and dicamba on morphology of alligator weed, and factors affecting injury of crops by DNB (you call it

dinoseb), was both challenging and rewarding. Working with people such as Don Davis and Walter Porter, and interacting with many other weed scientists across the South and Nation was stimulating and enjoyable

Weed Science continues to make tremendous progress and continues to contribute to the success of American agriculture and the well-being of our society.

The contribution of weed science to the technology of crop production has truly revolutionized farming. Many examples could be cited, but the change in how cotton is produced is one of the dramatic illustrations. The labor force required to grow cotton numbered in the thousands before the introduction of highly effective herbicides, chiefly because the only methods of weed control were hand-hoeing and mechanically cultivating. It is probably accurate to say that the number of people hoeing cotton in Alabama in 1945 exceeded the number of people working on all farms in the State today.

Availability of modern weed control technology is one of the major reasons that less than five percent of the American people can produce all the food and fiber needed by the other 95 percent. In addition, we still have enough to export nearly 45 billion dollars worth of food, feed, grain, and fiber to other nations who still cannot produce enough to sustain themselves. This tremendous agricultural productivity, which frees labor to produce the abundance of countless consumer goods and provide the many services we have accepted as necessary, is the envy of the world.

The rapid acceptance of chemical weed control during the last 30 years paints a vivid picture of the success of Weed Science. In 1952, herbicides were used on 30 million crop acres in the United States. This figure had passed the 250 million acre mark by 1977. Such acceptance came about because people such as you provided effective and efficient methods of using the ever-improving arsenal of herbicides being developed and perfected by industry.

The increasing number of herbicides available for farmers is another measure of Weed Science growth. In 1950, there were about 15 basic materials; today there are more than 180 basic herbicides and more than 6,000 formulated products. Constant improvement in application techniques and integrated control systems has resulted in smaller amounts of chemicals doing a better and more effective job of controlling the 1,800 or more species of weeds that plague farmers throughout the world.

All of the progress has come at a time when concern about possible environmental damage from pesticides has made life difficult for everyone involved in the process of production, testing, and use of herbicides. It is to the everlasting credit of Weed Science that ecological considerations have been important from the start of the herbicide age so that highly effective weed control systems can be used without damage to the environment.

This discussion of the history of Weed Science--or as today's young moderns would say, "where we're coming from"--sets the stage for my assigned topic--"New Perspectives in Weed Science: A Viewpoint From Academia."

It is obvious you have often given careful thought to the future of your organization and Weed Science in general. A few recent titles of SWSS

presidential addresses clearly illustrate this point. Included:

"Points of Concern in Weed Science"

W. G. Westmoreland

"Comments on the Near Future in Weed Science"-

Paul W. Santelman

"Keeping Pace is Not Enough"

Cletus G. Parris

"Weed Science - The Unfinished Discipline"

Gale A. Buchanan

I think it highly commendable and important that you continue the search for new perspectives and how you can best meet your disciplinary commitments with the resources you have available. If there is anything I've become very familiar with in the past 14 years it's how to keep programs going with ever-tightening budgets.

You must determine as best you can what will be important in the years ahead and do the necessary planning to meet those challenges that will surely come. Planning is essential for all groups that make up the Weed Science discipline, both the commercial and institutional components. The Land-Grant colleges have an important role to play in the continued development of the Weed Science discipline, and I am happy to share with you some ideas from my vantage point about how teaching, research, and extension should respond to the challenges ahead.

Each new generation brings new problems in weed management and new challenges to Weed Scientists in industry, government, and academia. Developments that can be seen on the horizon will bring new challenges to the academic community.

Increased emphasis on weed management as a component of pest management is the wave of the future in research as well as in production agriculture. This may sound like a fairly uncomplicated statement, but it will involve attention to a multitude of factors.

First, this emphasis on weed management rather than just looking for ways to kill weeds means that we need to know a lot more about each weed to know how best to control it. Such answers lie in a better understanding of basic biology. I'm aware of a new regional research effort in the Southern Region specifically designed to study basic weed biology. We must learn such things as how specific weeds respond to factors of the environment such as light, moisture, nutrients; how they maintain their populations and are spread; and how they interact with each other. This means we must study the ecology of crop/weed communities, physiology, anatomy, and morphology of specific weed species to provide the basis for applied research that can lead to practical methods of overcoming the damaging effects of weeds on crops and the environment.

While some of the basic research needed will call for narrowing research to provide needed detailed biological data, the overall field of weed management will require research and development that examines a broad view. We need to know how all the components of crop production, from land management between crops through all production and plant protection practices and harvest, affect weeds and weed control success.

Such endeavors will require the effort of teams of researchers who are knowledgeable in all the necessary disciplines. Realistically, this will call for additional staffing by Weed Scientists, to more equally match the numbers of scientists engaged in other aspects of plant protection research, teaching, and extension.

Extension weed scientists will have an especially important role in making weed management effective in reducing the impact of weeds on our crop lands, rangelands, and the environment. While the scientific information to make weed management work must come from the field and laboratory research programs, it will take extension workers with both know-how and dedication--as well as an abundance of good judgment--to get this concept into widespread use to meet the needs of the future.

Only modest increases at best or perhaps some small increases in federal funding--at a time when research costs are steadily increasing--is almost a certainty for the future, and this cloud on the horizon must not be overlooked. But instead of waiting until the cloud passes over, we need to be out seeking creative ways to blunt this shortage of government research support funds without losing our momentum.

First, we must seek more economical ways to carry out the research, so we can get more useful data from available funds, thereby providing the critically needed support for agriculture. This can be done through better planning of individual projects, more sharing of ideas and results among workers from different areas, and by making better use of new methods and tools, such as computers. Regional research efforts will continue to be a key component in Weed Science research. There are several good examples, namely, "Ontogeny, population dynamics, and interferences: A basis for understanding weed biology," S-110, "Minimum tillage and double cropping on weed populations and persistence and fate of herbicides," S-146, "Methodology, dissipation, and fate of pesticide residues in agricultural ecosystems," and interregional projects such as IR-4 dealing with registration of chemicals for minor uses will continue to be effective means of increasing research effectiveness.

Better utilization of computers offers many opportunities for extending your efforts. Computers can be used to advantage for planning weed management programs, for assembling information on particular weeds, on weed response to particular chemicals, and on special problems with specific crops, to mention a few possible uses. Computer analysis is a natural for such complex questions as what is the most economical mix of cultural and chemical inputs into a crop production system for individual crops under specific soil, fertilizer, and weather conditions, or in figuring out the threshold where weed control efforts will return a profit. You can think of many other practical methods of using this valuable tool, which is available on every campus. I am firmly convinced that by the end of this decade computers will be as much of the average farm equipment base as tractors are today.

Another practical approach to overcoming government funding shortages is to develop support from other sources, such as commodity organizations and industry.

Many commodity groups are already supporting State Agricultural Experiment Station programs directly related to that commodity, but much more support could be developed. Efforts to increase the awareness by the commodity groups

of needs and areas where Experiment Station research and education would benefit that commodity, and agriculture in general, could pay off in badly-needed financial support. Such groups also can enhance your efforts to gain equitable funding from your state legislature. Commodity groups have great influence with elected officials, so their support can be extremely valuable to your institution.

The development of broader industry support is another approach that merits careful consideration. Unfortunately, our agricultural programs receive very little support from most major agriculturally related industries. Too often, evaluation of herbicides and other aspects of product evaluation for a few thousand dollars is the norm. While this type research has made important contributions to Weed Science and agriculture, we need to look at the broader picture and sell industry on their opportunities for supporting research that will contribute to the total Weed Science discipline. Support of some of the more basic type studies needed might not immediately benefit industry, but information gained could be valuable to all of Weed Science and agriculture. I am convinced this concept would appeal to industry. The precedent certainly has been set with Hoechst's investment of \$50,000,000 for genetic research at Massachusetts General Hospital, Exxon's \$10,000,000 in combustion research at MIT, and others. It's up to you, individually and collectively, to sell the idea.

Changing cropping systems will call for different research approaches to meet farming needs of the future. For example, increased use of double cropping will usher in new weed problems and require a greater dependability on chemicals than in conventional cultural systems where cultivation remains a back-up means of weed control. Preseeding or interseeding with legumes to substitute partially for high cost of commercial nitrogen will require totally different weed control systems that are yet to be devised. Genetic engineering will be producing new varieties or species of crop plants, and these will have different chemical tolerances and different responses to weeds--another area in direct need of research.

Up to now my remarks have been directly concerned with research and extension challenges, but we cannot overlook the need for strong, innovative teaching programs in Weed Science. The record of the Southern Weed Science Society in support of student programs, particularly at the graduate level, is indeed an enviable one. You have long taken the lead in encouraging such programs and, more importantly, you've "put your money where your mouth is" by providing monetary support for students at your annual meeting. Members of your organization have taken the lead nationally in developing a competitive weed meet, such as the invitational "Deep South Weed Meet," to encourage excellence in weed science. This was such a good idea, and after only two years, weed meets have been developed in other parts of the country.

We must maintain a pool of highly trained people who can do development work that will be needed in the future, and who can relate this information to farmers and other users of Weed Science technology.

Just as important, the increasing sophistication of weed control means that users of herbicides and other modern weed control technology will need more Weed Science training.

Chemicals will continue to be important in the foreseeable future, so users should be better educated about all the implications of such technology use--both environmental and economical aspects. Such knowledge becomes increasingly critical as more and more attention is given to the environment by all segments of our population. Education is the only way to fill this need.

In closing, I'd like to comment on a question that is always put to a Weed Scientist turned agricultural administrator. This question is, "should Weed Science be a self-contained discipline with Departments of Weed Science?" The next question often follows, "what are you going to do about bringing this about?"

Let me comment on the second question first. I'm going to let Experiment Station Directors figure out what to do about Departments of Weed Science! But in all seriousness, I don't see much to be gained in Departments per se. What is important is Administration's recognition and attention to the Weed Science area sufficient to address the needs in teaching, research, and extension. You must continue your efforts to point out genuine needs in Weed Science and work to develop the support to address those needs.

We have talked about a lot of things and all of them should be viewed as opportunities for the profession to be of greater service in the years ahead. There is no question in my mind that Weed Science has made many contributions to American agriculture and, indeed, our society. It will continue to meet such challenges, given the right climate for support of our research, teaching, and extension efforts.

You can have this support. The way to get it is to continue to develop understanding of the importance of the work you do--by your administration, by the agricultural industry you serve, by farmers and user clientele, and by the general public.

It has been a real pleasure for me to be with you. I wish you well.

Thank you.