

Proceedings

TWELFTH ANNUAL MEETING

of the

SOUTHERN WEED CONFERENCE

JANUARY 21, 22, 23, 1959

SHREVEPORT, LOUISIANA

Harry M. Elmer

PREFACE

These Proceedings of the Twelfth Annual Meeting of the Southern Weed Conference held January 21, 22, 23, 1959, in Shreveport, Louisiana, include formal papers, the report of the Research Committee, minutes of the business meeting and lists of registrants and sustaining members.

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PRESIDENTIAL ADDRESS
By Richard Behrens, President
Southern Weed Conference

In the process of trying to decide on a suitable subject for this occasion, I spent some time going over talks that have been given by my predecessors. Each one that I reviewed contained many excellent thoughts. I feel that some of these ideas are worthy of repetition with a few added comments in the light of pertinent developments in recent years.

In 1953, Dr. Hinkle discussed the lack of public support for agricultural research and emphasized that agricultural research workers are not doing a good job of informing the public of their accomplishments and their needs. I feel that we have not improved in this respect during recent years. In fact, with the advent of Sputnik, Explorers, Vanguard, Thors and the like, we, as biologists, have almost lost our classification as scientists. It seems ironical, but the recent demotion of biologists must be attributed to their outstanding accomplishments. These accomplishments are responsible for the agricultural abundance that is taken so much for granted in this country today. Actually, we are so far ahead of the Russians in agricultural research that there is no common ground for comparison.

I mentioned our demotion. Who has taken over our scientist rating? I think it is fair to say that the engineers, who have fallen behind the Russians in this game of shooting at the moon, have gained our title of scientists. Certainly they are highly trained technicians, but I object to their being called scientists. How might we get our scientific rating back? We could take a few engineering courses on the side and try to get classified as engineers. Salary wise, that might not be such a bad idea. We might quit research and discourage promising students to forego the biological sciences already. This matter of quitting research may have merit. If the Russians exceeded us in the biological sciences, we not only would be scientists again but would not be able to spend research funds as fast as they were given to us.

Seriously, I think that we, as biologists, are not being given the proper consideration in the present expanded scientific effort. Actions now being taken will weaken any discipline in years to come. Efforts to channel the best students into mathematics, physics and engineering are bound to be felt in the biological sciences in years ahead. To offset this trend, I feel that we should make some attempt to bring students into the weed control field. I believe the proposed plan of the committee on the Promotion of Student Interest should be the major Southern Weed Conference effort in this direction.

In our opening session, Mr. Butler expressed his confidence in the ability of the American farmer with the aid of research to meet the

growing agricultural needs of this country for many years to come. I am inclined to agree with him; however, we must consider the needs of more than this country alone. While remarkable advances have been made in agricultural production in recent years, the world food supply is still barely adequate. Annual world population increases of one to two per cent require corresponding increases in food production. Biological research done years ago is responsible for the production increases of today. We must be sure that the biological research of today is not curtailed if the vital production increases that will be needed in future years are to be forthcoming.

I need not dwell on the place of weed control in this picture. Increased production due to the elimination or control of weeds is so elementary that we make the mistake of not bothering to mention it when we have a chance to do so. Publicity agents, we are not and should not try to be. At the same time, let us waste no opportunity to explain the importance of weed control in insuring a high level of agricultural productivity at the lowest possible cost of production. Also, let us make an added effort to encourage good students to enter the field of weed control. This is the course that all of us must follow if the discipline of weed control is ever to achieve the growth and development that it deserves.

In his address in 1954, Dr. Ennis discussed the reasons of the establishment of SWC and pointed out its valuable role as a storehouse of information on weed control in the South. He emphasized the necessity of the development of an organization with representation from research, industrial, extension and regulatory phases of weed control. This year we have made an effort to increase participation by including sectional meetings for extension and public health aspects of weed control. Also, these sections need further stimulation. We still lack representatives from regulatory groups that are concerned with weed control. An effort was made to have a member of the Association of Official Seed Analysts of America give a report on their attempts to develop uniform seed laws and uniform noxious weed lists for the major regions of the United States. However, they were unable to send a representative to our conference this year. Certainly, we would have considerable interest in such a program and, perhaps, will be able to hear more of this matter at some future conference.

In 1955, Dr. Shaw spoke of weed control as a new scientific discipline and discussed the history and growth of chemical weed control. During the last year or so, there has been some serious thought given to the development of a suitable name for the discipline of weed control. This matter was brought up in our business meeting this afternoon when Dr. Frans reported on the effort of the WSA Terminology Committee to find a satisfactory name. I am sure that some weed control specialist will bestir himself, out of fear of being called a "Culturicidologist," and come up with a name that will make all of us happy. I believe that there is much merit in developing a suitable scope definition for the

discipline of weed control, also. Once unified under a single name and with the weed control area of research well defined, I am certain that our efforts to recruit suitable graduate students will be more successful and we will be better able to justify a well rounded weed control program to our administrators. At the present time, it is rather difficult for a weed control worker in Agronomy to initiate a basic study that is physiological in nature. Similarly, a weed control worker in a Botany department could have administrative troubles getting funds for agronomic studies. A well defined scope definition for weed control might be very helpful in these cases. Personally, I would like very much to have a good title that pinpoints me as a weed control worker. I am hoping that a satisfactory name will soon be a reality.

Drs. Klingman and Albert, in their presentations of 1956 and 1957, both mentioned the necessity of increased basic research in all phases of weed control. I am sure that all of you have heard the plea for increased basic research over and over again. Many of us, when we could get our most pressing weed problems somewhat under control, have attempted to spend some time on studies of a more or less fundamental nature. The task has not been easy. There is continuous pressure to expand field studies on specific weed problems. In addition, basic research is costly and time consuming, much more so than practical field testing. Equipment for precise herbicide applications, for control of environment, for measurement of metabolism, translocation and the like, is expensive. Most weed control budgets are based on the cost of relatively inexpensive field experiments and few weed workers are in a position to be able to purchase a Warburg or a controlled environment chamber with project funds. This is a major deterrent of the initiation of basic studies.

Actually, the purchasing power of operating budgets has undergone a rather drastic decline in recent years. One factor in the decline has been the greatly increased cost of part-time and sub-professional labor. Compliance with state and federal minimum wage laws has been largely responsible for increased labor costs. I can well remember the change to meet minimum wage requirements several years ago when my cost for the same amount of part-time help jumped from \$700 to \$1100 per year with no increase in budget. I am sure that others had similar experiences. Another factor having an effect on reducing the funds available for research is the inflation in prices for supplies, services and maintenance. I ran across some figures the other day showing that 48 percent of the research project funds of a department in one of our agricultural colleges was required for general operations of the department. This did not include heat, light, telephone or building upkeep. Included were stenographic help, greenhouse and field-maintenance, office supplies and other miscellaneous expenses that could not be assigned to a specific research project. The remaining 52 percent had to support research assistants, purchase project supplies and equipment and pay for travel.

A third development has actually resulted in a decline in the amount of money available for operating budgets. This has been due to recent widespread and long overdue salary increases for state and federal workers without adequate increases in appropriations. In many cases, it has been necessary to reduce operating budgets to pay part of these increases. This is especially so in the case of state workers receiving part of their salary and operating budget from federal funds. The increase on the part of the salary coming from federal funds had to be paid from money formerly used for research operations since federal grants were not raised in proportion to the state salary increase. I hope that situations of this kind can be corrected. What is the use of paying the salary of a man and not giving him sufficient funds to operate effectively?

In closing, I would like to say that it has been an honor to serve as President of the Southern Weed Conference. Though I am no longer in the area, I hope to follow the growth and accomplishments of the Southern Weed Conference. I am sure that growth will continue and accomplishments will be many.

MINUTES OF THE BUSINESS MEETING
SOUTHERN WEED CONFERENCE

Washington-Youree Hotel
Shreveport, Louisiana
January 22, 1959

Dr. Behrens, President of the Southern Weed Conference, called the meeting to order at 3:22 P. M.

At the Request of President Behrens, Dr. Porter moved that the minutes of the 1958 meeting be approved as printed. Seconded. Motion passed.

President Behrens requested that the Secretary-Treasurer's report be presented. Report presented by Dr. Porter.

Southern Weed Conference
Financial Statement
Conference Year 1958

ASSETS:

I. Carry Over		\$2466.19
II. Total receipts 1959 Joint SWC-WSA Meeting		
A. Registration Fee	\$1314.00	
B. Abstracts of WSA papers	403.00	
C. Proceedings of SWC	339.00	
D. Banquet	964.00	
Total		3020.00
III. Sustaining Members		725.00
IV. Sale of Proceedings after meeting		327.31
V. Research Report Refund (1957)		40.80
	TOTAL	<u>\$6579.30</u>

EXPENDITURES:

Expenses at 1958 Conference	\$2040.01
Refund to WSA	437.75
Production of 1958 Proceedings	344.62
Postage	135.70
President's Office	50.00
Office Supplies	58.36
1959 Badges	21.00

Carried Forward:

<u>Brought Forward:</u>	\$3087.44
1958 Officers' Pictures	8.25
Bank Charges	.10
Program Committees (1959 Printing not yet billed)	21.37
Executive Delegation Expenses	363.80
Research Report	298.88
TOTAL	<u>\$3779.84</u>
Total Cash on Hand	2799.46
TOTAL	<u>\$6579.30</u>

Respectfully submitted,

/s/ W. K. Porter, Jr.
W. K. Porter, Jr.
Secretary-Treasurer

APPROVED:

Auditing Committee:

/s/ W. E. Chappell, Chairman
/s/ W. C. Normand
/s/ C. H. Meadors

President Behrens then requested that Dr. Chappell, Chairman of the Auditing Committee, present his report. Dr. Chappell reported that his committee had audited the treasurer's books and found them in order. Dr. Chappell moved that his report be accepted. Seconded. Voted unanimous.

At the request of President Behrens, Dr. Frans, Chairman of the Terminology Committee, presented an informal report. He informed the conference that in the near future a revised terminology report would be published in Weeds.

Dr. McCully presented the report of the Legislative Committee.

REPORT OF THE LEGISLATIVE COMMITTEE

The Committee has directed its effort toward accumulating information on legislative matters pertaining to herbicides which may be of interest to the Conference membership.

A summary of laws relating to the sale and use of herbicides in thirteen states and Puerto Rico is attached. This information is a

Shreveport Chamber of Commerce. He moved that the conference accept these resolutions and that the Secretary so inform the above groups. (Resolutions shown separately).. Seconded. Motion passed.

President Behrens requested that Dr. Holstun, Chairman of a special study committee on student interest, present his report. Dr. Holstun discussed the report in detail and requested that the conference approve the principle of his report. Seconded. Motion passed.

REPORT OF THE COMMITTEE ON PROMOTION OF STUDENT INTEREST
BY THE SOUTHERN WEED CONFERENCE

I. Purpose of the Committee

To formulate a specific program for the promotion of student interest in weed control.

II. Findings of the Committee

The committee has developed what it believes to be a worthy program. It is recommended that this program be submitted to conference membership for a vote on adoption either at the 1959 meeting, or by mail within three months after that meeting. The vote on adoption would be for one trial only; repetition would be decided after the initial trial was completed.

The complete program is as follows:

A. Informal encouragement and motivation

It is highly recommended by the Committee that each member of the Southern Weed Conference take every opportunity to explain the scope and details of possibilities for careers in the general field of weed control to high school and college students. It is likely that a large number of excellent workers will be lost to us simply because they do not realize that we too need mathematicians, physicists, engineers, chemists, botanists, extension specialists, economists, and many others whose relation to weed control may not be self-apparent.

B. Formal interest program

1. The Committee recommends that a series of graduate scholarships be made available on a competitive basis to college students. Such a program would have three objectives:

a. To arouse interest in college students in the varied careers offered by the general field of weed control.

- b. To stimulate thought in relation to needed course work by students in the early phases of their education.
- c. To provide limited financial assistance, at the graduate level, to capable students interested in pursuing a career in weed control.

2. This program could be conducted as follows:

A contest would be held between participants from the schools of natural sciences in all of the four-year colleges of the states in the Southern Weed Conference. This contest would consist of papers containing the following:

- a. A review of literature of from 1 to 12 double-spaced pages on any one of the following topics:
 - (1) Basic chemical, physical, engineering, physiological, or botanical studies on any specific herbicide or specialized weed control equipment.
 - (2) Control of weeds in general in any specific crop or specific non-agricultural situation.
 - (3) Control of any specific weed.
 - (4) Any topic that the participant can clearly relate to a significant degree to the general field of weed control.
- b. An original composition of from 1 to 6 double-spaced pages on any specific career in the general field of weed control, and covering the following three points.
 - (1) Relation of the career selected to weed control. (Example - Discuss the work done by an extension weed specialist in the transfer of research findings to the public.)
 - (2) Preparation by an individual for the selected career (discuss formal course work, experience, etc., needed in the chosen career).
 - (3) Personal reasons for selection of such a career with inclusion of its disadvantages.

3. Operational procedure and rules would be as follows:

- a. The contest would be opened by enlisting the aid of the College President or Deans of the Schools of Natural Sciences at each 4-year college in the area of the Southern Weed Conference. He would be requested to have the announcement and rules posted on local bulletin boards.
- b. The first contest would be announced in September of 19 x^{*}. Entries to be received from January 1, 19 x / 1 to July 1, 19 x / 1. Winners to be announced at the Southern Weed Conference in 19 x / 2.
- c. Awards would be as follows:

1st place - One \$500 scholarship for graduate study in a field clearly related to weed control and \$50 in cash.

Recipient of the scholarship must have an average of at least B at the time of obtaining his BS. In the event the first contestant fails to meet requirements or elects not to accept the scholarship, it will go to the contestant with the next highest score, and so on down the line. If none of the top 10 contestants qualify the scholarship's money will revert to the general scholarship fund of the SWC.

2nd through 10th places - One \$50 cash prize for each place with no restrictions whatever as to use of money.

Papers presented by all winners will be published by the SWC as part of its proceedings. All contestants will become honorary members of the SWC for one year. All entries become the property of the SWC, and none will be returned.

- d. Awards will be announced at the first SWC meeting following the close of the contest.
- e. Administration

Upon adoption of the program the President of the Southern Weed Conference will authorize the Secretary

*September 19 x is the first September after the necessary funds have been made available.

to initiate action for the raising of the necessary funds. All members of the Southern Weed Conference will be asked to contribute voluntarily to the scholarships fund. If funds remain after the program is discontinued, they will revert to the general treasury of the Conference. Six dollars per member will be suggested as a reasonable donation for individual members. Donations from Industry will be appreciated in whatever amounts offered. The scholarship program will be announced and initiated by the Secretary in the first September after a fund of \$1200 has been established.

A team of elimination judges (one judge from each state) and a finals team of three judges (one each from Research, Teaching or Extension, and Industry) will be appointed by the President of the SWC prior to public announcement of the program. All entries will be mailed to the Secretary of the SWC. He will assign each entry a number and remove all other identification from it. After the closing date of the contest, he will make random groups of equal numbers of entries, and forward one group to each elimination judge.

Each eliminations judge will grade each entry and forward a report by entry number to the Secretary, but not record this grading on any entry other than to indicate the top two entries. He will then return all entries to the Secretary with his top two being clearly indicated and tied separately.

The Secretary of the SWC will then forward all of the elimination judges' choices to one of the finals judges. Each finals judge will grade each entry, send a report of his grading by entry number to the Secretary, and forward the entries on to the next judge for grading. In no case will a judge mark an entry in such a way to indicate his grading nor in any way that might influence a following judge. The last judge will return all entries to the Secretary who will select the winners by adding scores given each entry by the finals judges.

No entry having a score of less than 70 will be considered. In the event that eligible entries are fewer than 10, the number of awards will be reduced accordingly.

All entries will be graded according to the following weighting of points.

(1) Literature review

	Maximum points
(a) Grammatical accuracy	15
(b) Technical accuracy and thoroughness	15
(c) Organization, clarity, and style	15
(d) Evidence of selection, interpretation, and evaluation of papers included in the literature review	15

(2) Composition

(a) Grammatical accuracy	10
(b) Organization, clarity, and style	10
(c) Originality	10
(d) Evidence of sincerity and depth of thinking	<u>10</u>

Total for (1) and (2) 100

In grading the entries, it is suggested that the judges bear in mind that the contestants will be inexperienced, and that the standards set should be in keeping with the level of training of the contestants.

It is suggested that the Secretary of the SWC be authorized to request assistance from any member of the SWC to carry out the details of this work, but that the responsibility shall still remain with the Secretary.

- f. A sample announcement and a set of rules have been prepared, but is not included in this report since it merely repeats much of the above information in a different form.

Vice-President Searcy, upon the request of the President, presented the Research Committee Report and requested that it be published. Seconded. Motion passed.

President Behrens requested that Mr. Rea, a member of the Constitutional Study Committee, report. Mr. Rea discussed the committee activities for the past year. The President directed this committee to continue to develop certain constitutional amendments, and perhaps they can be voted on before the next meeting.