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(Contains Papers and Proceedings for FY 1992)

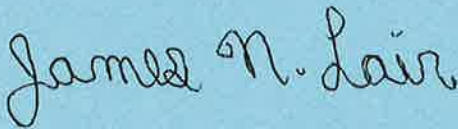


NOTICE
JOURNAL OF SEED TECHNOLOGY
SUBSCRIBER INFORMATION FOR 1992

Due to the lack of articles submitted for publication this year, Volume 16 consists of only one issue for 1992. This issue is labeled as Volume 16 #1 and #2, 1992. For distribution questions and subscription information on Journal Volumes contact:

Mr. Larry Prentice, Secretary Treasurer
Association of Official Seed Analysts, Inc.
c/o Nebraska Crop Improvement Association
266 Plant Sciences, IANR
Lincoln, NE 68583-0911

Signed by,

A handwritten signature in dark ink that reads "James N. Lair". The signature is written in a cursive style with a large, stylized "J" and "L".

James N. Lair President
AOSA, Inc.

**Volume 16 • Number 1, 2
1992**

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L. E. Wiesner, Editor
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SUGGESTIONS TO CONTRIBUTORS TO THE JOURNAL OF SEED TECHNOLOGY

General Requirements. Articles should be original reports covering some area of seed science and technology not previously or simultaneously published in any other scientific or technical journal. Three kinds of articles may be considered for publication: (1) research papers, (2) brief communications covering new techniques or developments, and (3) review articles by special arrangement with the editor.

Publication Charges. Page charges have been established for the Journal and will become effective for volume 13 (1). Charges are \$20 per page for the first 10 pages and \$50 per page for each additional page. Authors will be billed for charges when galley proofs are received.

Manuscripts. The manuscript must be typed on good-grade bond paper approximately 21 by 28 cm. The lines of type must be numbered on each page. Three copies, also on line-numbered paper, are required. The entire manuscript must be double spaced. Each table must be typed on a separate sheet. An abstract and list of Additional Index Words must be included at the beginning.

Order. Assemble the manuscript in the following order: Title (no separate title page), Author(s), Abstract, Additional Index Words, Text, Literature Cited (begin on a new page), Tables, Captions for Figures (begin on a new page), and Figures. Although the text is most commonly divided into the following sections: Introduction, Materials and Methods, Results and Discussion, Acknowledgements, the specific arrangement for articles submitted to the *Journal of Seed Technology* will vary. Place headings in the center of the page and capitalize throughout. Begin the subsection headings at the left hand margin (do not indent), capitalize the first letter, underline, and follow with a period. Begin the first sentence on the following line with the first word indented five spaces. Do not include a summary or list of conclusions.

Numbers. Use arabic numerals for all numbers with two or more digits and for all measurements such as time, weight, or degrees except when the number is the first word in a sentence. Spell out numbers when they are the first word in a sentence or when they are less than 10 and not measurements, except when in a series in which one figure has two or more digits.

Author(s). Place the name(s) of the author(s) in full caps below the title and footnote with a superscript arabic two (2). In listing the authors, do not leave a space between the period after each initial and the next letter. Give the place where the study was conducted and the title and address including the zip code of each author in footnote two at the bottom of the page.

Footnotes. Footnotes are numbered consecutively and typed at the bottom of each page. Number 1 should contain identification of the article or research project. Number 2 identifies the author(s).

Tables. Tables are numbered consecutively. Use the following symbols for footnotes, in this order: †, ‡, §, ¶, #, etc. Use asterisks (*, **, etc.) to indicate statistical significance (5%, 1%, etc.). Do not duplicate information that is presented in charts or graphs.

Figures. Photographs for half-tone reproduction should be glossy prints with good dark and light contrast. Prepare drawings for graphs and charts with India ink on white drawing paper or blue tracing cloth. Typewritten words should be avoided on graphs and charts. Label each figure with the name of author, title of article, and number of figure. Do not use figures which duplicate information presented in tables.

Style Manual. The *Style Manual for Biological Journals* prepared by the Committee on Form and Style of the Council of Biology Editors and published by the American Institute of Biological Sciences (AIBS) shall be followed for writing papers submitted to the *Journal of Seed Technology*. The Publications Handbook and Style Manual of the American Society of Agronomy can also be used as a guide in manuscript preparation.

Abbreviations. Use standard abbreviations listed in the AIBS Style Manual without definition. Other abbreviations should be defined at first usage and may be used thereafter without further definition. Names of states should be abbreviated following city names, using the two letter abbreviations of the U.S. Post Office Department.

Nomenclature. The Latin Binomial or trinomial and authority must be shown for all plants, insects, and pathogens at first listing (in title, abstract, or text). Crop varieties should be identified by single quotation marks at first listing only, e.g. 'Ranger' alfalfa (*Medicago sativa* L.) or *Medicago sativa* L. 'Ranger'; *Bothriochloa ischaemum* var. *songarica* (Rupr.) Cel. et Harl. 'King Ranch.'

Units of Measure. Metric units must be used for all measurements.

References. All citations whether to published literature or to unpublished work are to be listed alphabetically by senior authors at the end of the manuscript. Citations to published works should include names of all authors, the year, complete title, publication, volume number, and inclusive pages, as appropriate.

Subscription Information

Subscription rates are \$25.00 per year for the Journal of Seed Technology (JOST) and may be obtained by writing to the Secretary-Treasurer, Association of Official Seed Analysts (AOSA). Back issues of the JOST, as well as other AOSA publications are also available.

Mr. Larry V. Prentice 268 Plant Sci. IANR-UNL
Nebraska Crop Improvement Assn. Lincoln, NE 68583-0911

THANKS TO OUR REVIEWERS

The Journal of Seed Technology would like to thank all of the individuals who reviewed articles for Volume 16 issues. A special thanks is given to the Associate Editors who worked with the reviewers and the authors to make each manuscript of the highest quality. We appreciate all the valuable time and effort each reviewer gave to improving the manuscripts they reviewed.

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L. Copeland
R. Danielson
J. Ferguson
D. Grabe
T. Gutormson
N. Hopper

R. Karrfalt
A. Knapp
A. Larsen
J. Maguire
M. McDonald
R. Mullen
D. Tekrony

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Vice President	Deborah Meyer
Secretary-Treasurer	Larry Prentice
Immediate Past President	Charles Baskin
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.....	Arnold Larsen (1992)
.....	James Warren (1992)
.....	Richard Lawson (1993)
.....	Malcolm Sarna (1994)
.....	Rodger Danielson (1994)

Standing Committees

Editorial	Loren Wiesner
Legislative	Malcolm Sarna
Liaison	Arnold Larsen
Membership	Larry Nees
Public Service & Archives ..	Larry Prentice
Referee	Debbie Meyer
Research	Miller McDonald
Conditioning	Dan Curry
Cultivar Purity	Loren Wiesner
Flower Seed	Ellen Chirco
Garden Bean Germination ..	Pat Brownfield
Germination & Dormancy ..	Charles Vaughan
Lolium Labeling	Malcolm Sarna
Moisture Determination	Don Grabe
Purity	Arnold Larsen
Rangegrass Analysis ..	Tim Gutormson
Research Funding	Allen Knapp
Seed Pathology ..	Betsy Randall-Schadel
Statistics	Dan Niffenegger
Tree & Shrub Seed	Robert Karrfalt
Tetrazolium Evaluation	Jack Peters
Vigor Evaluation	Jan Ferguson
Rules	David Svik
Seed Standardization ..	Rodger Danielson
Sample Mediation	Jim Warren
Teaching & Training ..	Miller McDonald
Uniformity	Rodney Young

Special Committees

AOSA/ISTA Harmonization ..	Sandie Ednie
AOSA/SCST Computer	James Lair
AOSCA Advisory	Arnold Larsen
Auditing	Ellen Chirco
Budget	Deborah Meyer
CAST	Dan Niffenegger
Certification of Analysts	Guerke/Still
Constitution	Ellen Chirco
Meeting Place	Larry Nees
Merit Award	Wayne Guerke
Necrology	Richard Lawson
Nomenclature	Charles Gunn
Nominations	Richard Kochevar
Program	Deborah Meyer
Resolutions	Wayne Guerke
Seedling Evaluation	Doug Ashton
Symposium	James Warren

EXECUTIVE BOARD MINUTES

June 12, 1992

Wayne Guerke*	Charles Baskin*	Miller McDonald
Arnold Larsen*	Richard Payne	Jim Warren*
Sandy Ednie	Daniel Niffenegger	Larry Prentice*
Jim Lair	Deborah Meyer*	David Svik
Rodger Danielson*	Loren Wiesner*	Larry Nees
Richard Lawson*	Doug Ashton	Dennis Brown

*Association Officer or Executive Board Members

The Association Executive Board Meeting at the Waterford Hotel in Oklahoma City, Oklahoma, was called to order June 13, 1992, at 9:10 a.m. by President Wayne Guerke.

The agenda was distributed for review and approval. Motion was made by Richard Lawson, seconded by Loren Wiesner, to approve the agenda as distributed. Motion passed.

The General Session Minutes from the 1991 Lexington, Kentucky, meeting were reviewed. Motion was made by Jim Warren and seconded by Richard Lawson to approve the minutes as published in the *Journal of Seed Technology*, Vol. 15, No. 2. Motion passed.

The Secretary-Treasurer's report was given by Larry Prentice. Prentice moved to accept report; Charles Baskin seconded. Motion passed. Discussion of accounting methods and understanding of Association financial position followed, to be continued on Wednesday following further analysis.

Charles Baskin was appointed as Parliamentarian, and Ellen Chirco was announced as Chairman of the Audit Committee. An attendance roster was passed around the room.

The Editorial Committee report was given by Loren Wiesner, who made a motion to accept as read, seconded by Charles Baskin. Discussion followed regarding advertising AOSA publications at the American Society of Agronomy meetings. A motion by Loren Wiesner to submit the Association publications for display at the aforementioned meeting was seconded by Baskin. Discussion regarding further marketing methods of the Association publications followed. Loren Wiesner was directed by Wayne Guerke, President, to pursue this matter internally in the Editorial Committee. The motion on the floor was voted on and approved. Discussion followed on the revision and present status of Handbook #25, Uniform Classification of Crops and Weeds. Arnold Larsen stated it is nearing completion, suggested publishing in a looseleaf format, and review of its contents again in 5 years because of continual nomenclatural changes. Projected cost for publication is approximately \$7000. Discussion regarding availability on computer disk and possibility of publishing followed. Motion to table by Charles Baskin, seconded by Larry Prentice. Motion approved.

The Liaison Committee report was given by Arnold Larsen, who made a motion to accept as read. The motion was seconded by Deborah Meyer. Motion passed.

Larry Prentice gave the Public Service and Archives report and moved for acceptance as presented. Deborah Meyer seconded. Discussion followed concerning the inadequate archiving procedures and apparent lack of

background information that is being archived by Committee chairpersons. Motion passed. Further discussion concerning this matter resulted in Charles Baskin drafting a motion to include in the Administrative Practices Handbook guidelines stating a list of materials to be sent to the Iowa State University Library Archivist. This would include: correspondence by officers, Rules Committee correspondence, Secretary-Treasurer correspondence, Referee Committee reports, and other material of historical significance. Seconded by Loren Wiesner. Motion carried.

The Referee Committee report was given by Deborah Meyer. She outlined her efforts on updating the referee guidelines, statistical procedures, a bibliography of previous projects, and problems associated with referee projects. Deborah Meyer moved for acceptance of her report, seconded by Arnold Larsen. Discussion followed and the motion was approved.

The Research Committee report was given by Miller McDonald. A motion to accept the report was made by Charles Baskin, seconded by Richard Lawson. Discussion followed regarding research funding sources, proposals received for review by the Research Funding Subcommittee, and that several had been approved by the Subcommittee. Ensuing discussion regarding the *Seed Analysts Training Manual*, its status, revisions, and potential publication showed concerns regarding the inclusion of excerpts from the AOSA Rules for Testing Seeds. In addition, discussion concerning which seed identification photographic plates to include resulted in a motion by Richard Lawson to continue to review the document into a standardized format for publication as a handbook of the Association. Seconded by Charles Baskin. Motion approved. Developmental moneys were discussed for the project but no action was taken at this time.

The Rules Committee report was given by David Svik, with discussion of reprinting of the entire rules body; also questions regarding the pricing of the entire rules and updates. Arnold Larsen moved and Baskin seconded to accept the report. Motion carried.

Dan Niffenegger reported on CAST and developments within CAST to expedite the dissemination of information. Charles Baskin moved for acceptance of the report, Richard Lawson seconded. Some discussion regarding the importance of CAST and our continued support followed. Motion carried.

The Board adjourned for lunch at 1:06 p.m. The AOSA Executive Board reconvened at 2:35 p.m.

The Seed Standardization Committee report was given by Rodger Danielson, who moved for acceptance of his report, seconded by Jim Warren. Discussion concerning the importance of the Committee's work and its various subcommittees relating to public relations and workings with AOSA followed. Suggestions were made regarding possible development of further guidelines for the Sample Mediation Subcommittee. No official action taken.

Wayne Guerke gave the Affiliates Committee report and reported on activities and his development of guidelines for the Administrative Guidelines handbook. Invitations were extended to affiliates to attend the annual meeting. Wayne Guerke moved for acceptance, Charles Baskin seconded. Motion passed.

Deborah Meyer gave the Budget Committee report. A motion to approve the report with additional report to be made at the Wednesday board meeting

was made by Deborah Meyer, Charles Baskin seconded. Discussion followed on possible changes and updates to the budget. Motion regarding acceptance of the report was approved. Arnold Larsen moved to accept the budget pending revisions and updates. The motion was withdrawn. Further discussion regarding charging of a shipping and handling fee followed. Loren Wiesner moved to charge a shipping and handling fee for publications sufficient to recover costs. Arnold Larsen seconded. Motion carried.

The Certification of Analysts Committee report was presented by Wayne Guerke with future ideas for incorporation into the committee structure. Motion to approve the report was made by Richard Lawson and seconded by Loren Wiesner. Discussion followed regarding committee makeup and inclusion in constitution. Arnold Larsen moved that the committee be comprised of the following: Certification of Analysts Committee chairperson, 5 AOSA regional chairs for Certification of Analysts Committee, a member appointed from the Canadian Central Seed Testing Laboratory, and the Teaching and Training Subcommittee chair. Richard Lawson seconded. Motion carried.

The Photographic Seed Identification Committee was reported on by Wayne Guerke. The Committee objective is to produce photographic seed identification materials. The immediate focus will be to produce a uniformly high quality slide set for seed identification. This could be utilized by the Public Service Committee, and eventually in Seed Identification manuals. A request was made to the Board for inclusion of some developmental money in the budget to initiate the project. Requests for board input were solicited. A report will be prepared by the special committee. Wayne Guerke moved for acceptance of his report, Loren Wiesner seconded. Motion passed.

Larry Nees gave the Membership Committee report. Charles Baskin moved for acceptance of the committee's recommendation for approval of Pamela Wegner of Kansas Crop Improvement Association for Associate Membership. Richard Lawson seconded, followed by discussion. Motion passed. Charles Baskin moved we accept the committee recommendation for Honorary membership status for T. Wayne Still of Kentucky. Richard Lawson seconded. Motion passed. In further discussion Larry Nees indicated that the Association needs to publish an updated membership list in the News Letter during the 1993 year. Discussion followed on the format. No formal board action was taken.

Wayne Guerke brought up the issue of distribution of AOSA publications to Associate Members and Honorary Members. Larry Prentice stated that we have many Honorary Members and that no check of their continued desire to receive the News Letter had been made in recent time. The board directed the Secretary-Treasurer to mail notices regarding status and receipt of AOSA News Letters to all Honorary Members.

Meeting Place Committee report was given by Larry Nees. Charles Baskin moved to accept, seconded by Rodger Danielson. Discussion regarding lack of invitations following the Oregon 1994 meeting. Motion passed.

The Harmonization Committee report by Sandy Ednie was reviewed. North American and European representatives met and discussed the 15 current issues for testing seeds concerning ISTA and AOSA. A discussion followed on various handbooks being developed internationally on seed evaluation methodology. Lastly the organization of the committee was

discussed. Motion to approve the report by Loren Wiesner, seconded by Rodger Danielson. Motion approved.

The Merit Award Committee report was given by Wayne Guerke and moved for acceptance. Loren Wiesner seconded and discussion followed; the recipient to be announced at the Annual Banquet. Motion passed.

Richard Lawson gave the Necrology Committee report. The board provided guidance on whom necrology reports should be published for. Richard Lawson moved for acceptance of his report, Rodger Danielson seconded. Discussion followed. Motion passed.

Wayne Guerke reported on the Nomenclature Committee for Bob Gunn, who was not in attendance. Loren Wiesner moved for acceptance of the report, and Richard Lawson seconded. Motion passed.

The Nomination Committee report was given by Wayne Guerke for Richard Kochevar. Motion by Richard Lawson for acceptance, seconded by Arnold Larsen. Motion approved.

The meeting adjourned at 4:55 p.m. for dinner. The board reconvened at 7:15 p.m.

Jim Lair reported on the Sweetclover Copper Sulfate test. He reported that Richard Payne felt that continued testing and growouts were required. Jim stated concerns with the test procedure. Discussion regarding inaccuracies of the test followed. Guerke discussed the possibility of a moratorium on species determinations on Sweetclover samples, pending further research. Loren Wiesner moved for a moratorium of the copper sulfate test until additional data is available for modification or removal of the rule. The data to be developed by the following persons: Richard Payne, Jim Lair, Dan Niffenegger, and Loren Wiesner. This moratorium would go into effect immediately following adoption at the general business meeting June 18, 1992. The moratorium would be reviewed by the AOSA Executive Board in June of 1993. Motion seconded by Charles Baskin. Discussion followed regarding mechanism of researching the problem. Motion passed.

Jim Lair gave the Joint SCST/AOSA Computer Committee report. Committee activity was presented outlining materials currently available. Concerns exist regarding the AOSA's involvement or non-involvement in the production of AOSA publications on computer disk. Lengthy discussions followed regarding distribution of "The Rules for Testing Seeds" and other handbooks on computer diskette or via a Bulletin Board System. Jim Warren moved for acceptance of the report. Loren Wiesner seconded. Motion passed. The meeting was adjourned at 10:00 p.m.

EXECUTIVE BOARD MINUTES

June 17, 1992

Larry Prentice*
Jim Warren*
Charles Baskin*
Miller McDonald
Doug Ashton

Deborah Meyer*
Tim Gutormson
Loren Wiesner*
Richard Lawson*
Rodger Danielson*

Bob Karrfalt
Jim Lair
Arnold Larsen*
Wayne Guerke*
Ellen Chirco

*Association Officer or Executive Board Members

President Guerke reconvened the AOSA Executive Board meeting at 10:15 a.m. The minutes from the June 12, 1992, Boarding Meeting were read. Jim Warren moved for acceptance of the minutes as amended. Richard Lawson seconded. Discussion followed regarding the status of the "Teaching and Training Manual." Charles Baskin moved that the "Teaching and Training Manual" prepared by the Teaching and Training Subcommittee be approved for publication as a manual instead of a handbook. The status as a manual instead of a handbook ensures that free copies will be distributed to AOSA Official Laboratories, Associate Members, or Allied Members. Jim Warren seconded. Motion approved. Wayne Guerke read a letter from SCST President Quentin Schultz regarding publication of the "Teaching and Training Manual." SCST offered to publish and sell the manual. Discussion as to the intent of the letter followed. Further discussion regarding the manual, contents, printing method, purpose of the manual, and the expected completion of revisions in 2 months led to a motion by Charles Baskin to table discussion of the "Teaching and Training Manual," seconded by Richard Lawson. Motion approved.

Wayne Guerke reported on SCST Crop Improvement member status in AOSA. An adhoc committee studying the problem met Sunday, June 13, 1992, at 8:00 a.m. Representatives from AOSCA, SCST, AOSA, and affected crop improvement personnel were in attendance. Rodger Danielson moved that during the current constitutional revisions the necessary editorial change to the AOSA constitution be made to eliminate the implied governmental status of crop improvement agencies. Jim Warren seconded. Motion passed.

Wayne Guerke initiated discussion on the printing schedule for Handbook #25, "Uniform Classification of Crop and Weeds." Arnold Larsen reviewed the cost of publication. Discussion ensued regarding the process of getting the document approved by the membership. Richard Lawson made a motion to table further discussion until after lunch. Motion seconded by Loren Wiesner. Motion approved. Meeting adjourned at 12:00 p.m.

The AOSA Executive Board reconvened at 1:40 p.m. with a call to order by President Wayne Guerke. Wayne Guerke stated the SCST letter regarding the printing status of the "Teaching and Training Manual" was to offer the AOSA sufficient funds at no interest to proceed with the printing as soon as revisions are completed. Arnold Larsen moved, pending completion of revisions, to authorize printing of 100 copies of the "Teaching and Training Manual," with moneys from sale of the publication to be set aside for further printing of additional copies. Deborah Meyer seconded. Motion passed. Charles Baskin moved that the price of the manual be set at \$30. Richard Lawson seconded. Motion approved. Incoming President Jim Lair was directed by President Wayne Guerke to write a formal response to SCST and thank them for their support.

Wayne Guerke resumed discussion on Handbook #25, "Uniform Classification of Crop and Weeds." Arnold Larsen started discussion of the procedure for adoption of a handbook and implications of the handbook numbering system. Loren Wiesner moved to approve publication of revised Handbook #25 following a review by our AOSA Affiliates. Motion seconded by Rodger Danielson. Motion passed. Loren Wiesner moved that 1 final copy of revised Handbook #25 be sent to all Official Laboratories for review as a proposed rule change. No other copies will be distributed until the

handbook has been accepted as part of "The Rules for Testing Seeds." Richard Lawson seconded. Motion passed.

The "Seedling Evaluation Handbook" was presented to the board by Doug Ashton, committee chair. The sample copy was circulated among the board for review. Richard Lawson moved to assign #35 to the "Seedling Evaluation Handbook," with the number to be added to the cover page as either a sticker or a new title page. Arnold Larsen seconded. The motion passed. Charles Baskin moved to set the price of the "Seedling Evaluation Handbook at \$25. Motion seconded by Jim Warren. Motion passed. Loren Wiesner moved to accept the committee report, seconded by Deborah Meyer. Motion passed.

The Board then discussed a thank-you to SCST regarding the \$2000 contribution made to the 1993 AOSA Research Funding account. Miller McDonald covered the Research Funding Subcommittee report and updated the board on grants for this fiscal year. Tim Gutormson's study on switchgrass will receive \$2000 for further work this year. Three additional proposals were received by the committee this year. The committee chose to fund a study on Tobacco germination by Ellen Chirco and Al Taylor from New York with \$3600. Requests for research proposals will be put in the September News Letter. The focus area for the grants will again be Germination and Dormancy. Additional focus areas were discussed. Robert Karrfalt will be the new Research Committee chair. Discussion followed concerning the committee structure.

Ellen Chirco gave the Audit Committee report. Jim Warren moved to accept. Arnold Larsen seconded. Motion passed.

Ellen Chirco read the Constitution Committee report. Charles Baskin moved for acceptance. Rodger Danielson seconded. Motion passed.

The Resolutions Committee report was given by Wayne Guerke. Dan Niffenegger was selected as new chair. Jim Warren moved that the Board direct the Resolution committee to prepare a resolution in support of funding of the Federal Seed Branch Laboratory and distribute it to the appropriate individuals. Richard Lawson seconded. Motion passed. Charles Baskin moved to draft a resolution commending Doug Ashton, Seedling Evaluation Committee chair, and the committee members regarding the development and completion of the "Seedling Evaluation Handbook," #35. Rodger Danielson seconded. Motion approved.

Loren Wiesner discussed the Editorial Committee action regarding marketing the Association publications through advertising and development of a marketing brochure for distribution.

Wayne Guerke gave the Legislative Committee report. A Joint report was prepared by SCST, AASCO, and AOSA regarding legislative changes relating to seed laws. Charles Baskin moved to accept the report as distributed. Motion seconded by Jim Warren. Following discussion the motion passed.

The Budget Committee report was given by Deborah Meyer. Rodger Danielson moved to accept the Budget Committee report as amended. Jim Warren seconded. Motion passed.

Deborah Meyer gave the Program Committee report and moved for its acceptance. Arnold Larsen seconded. Wayne Guerke recognized Deborah Meyer for her efforts and dedication to the Association this past year. Motion passed. Deborah Meyer then presented the tentative plan for the 1993 convention in Colorado.

Deborah Meyer reported on the "Administrative Practices Handbook" and presented an updated version with suggested changes. No action taken by the Board.

Deborah Meyer presented materials from the Film Coated Seed Committee of ASTA concerning definitions for various seed coatings. Charles Baskin moved that the definition be forwarded to the Rules Committee for study and determination of possible conflicts with the current rules. Arnold Larson seconded. Motion passed.

Jim Warren gave the Symposium Committee report and thanked the various committee members. Jim Warren then moved for acceptance of the report. Richard Lawson seconded. Motion passed.

The Certification of Analysts Committee report was given by Wayne Guerke. The committee intentions were presented and concerns given. Wayne Guerke moved for acceptance, seconded by Jim Warren. Motion passed.

New Business: Membership concerns were discussed regarding the individuals eligible under the present constitution to serve in various capacities for AOSA. Possible inclusion of additional experiment station personnel if listed in the AOSA Directory was a possible method of gaining Affiliate Members. Wayne Guerke directed the Board to develop a letter to Agricultural Experiment Stations, USDA, Seed Researchers, and other potentially eligible individuals of membership opportunities within AOSA. Wayne Guerke, Jim Lair, and the Membership Committee Chair to cooperate on this effort.

Brief discussion followed on the Secretary-Treasurer's duties. No action taken.

Jim Warren moved to adjourn the meeting at 5:30 p.m. Rodger Danielson seconded. Motion approved. The meeting was adjourned by President Wayne Guerke.

Larry Prentice, Secretary

GENERAL SESSION MINUTES

6 / 18 / 1992

The meeting was called to order at 1:40 p.m. with President Wayne Guerke presiding. The roll call was taken, 26 of the 53 official laboratories were attending for a quorum. Kathleen Willey was announced as parliamentarian. No new business was requested from the floor. President Wayne Guerke made a motion to approve the 1991 General Session minutes as published in the *Journal of Seed Technology*, Vol. 15, No. 2. Jim Lair seconded and motion passed.

The Executive Board minutes were read by Larry Prentice. Sessions were held June 12 and June 17, 1992. Following reading of the minutes, corrections were made regarding: 1) wording of the Certification of Analysts committee makeup on the June 12 minutes, and 2) the amount of the research grant on Tobacco germination on June 17 minutes. Kathleen Willey moved for approval of the June 12 Executive Board minutes as corrected. Sandy Ednie seconded, motion passed. Arnold Larsen moved for approval of the June 17 Executive Board minutes as corrected. Kathleen Willey seconded and motion passed.

Larry Prentice read the Secretary's report and moved for acceptance. Debbie Meyer seconded, motion passed.

The Treasurer's report was given by Larry Prentice. Prentice moved for acceptance of the report, Kathleen Willey seconded. Motion passed.

Loren Wiesner gave the Editorial Committee report and moved for acceptance of the report. Debbie Meyer seconded and motion passed.

President Wayne Guerke gave the Legislative Committee report for Malcolm Sarna. A joint AASCO, SCST, and AOSA report was distributed which summarized the changes related to seed laws with an additional handout of the actual changes. Jim Warren moved for acceptance of the report. Arnold Larsen seconded and motion passed.

Arnold Larsen gave the Liaison Committee report and moved for acceptance. Sandy Ednie seconded. Discussion followed and motion was approved.

Larry Nees presented the Membership Committee report. The committee considered one application for Associate Membership from Pamela K. Wegner, one application for Honorary Membership from T. Wayne Still, and received two resignations from Associate Membership status because of a conflict of interest with SCST. Nees moved for acceptance of the report. Rodger Danielson seconded, motion passed. Rodger Danielson moved for acceptance of Pamela K. Wegner for Associate Membership, Sandy Ednie seconded. Motion passed. Loren Wiesner moved for acceptance of T. Wayne Still for Honorary Membership, Arnold Larsen seconded. Motion passed.

Larry Prentice read the Public Service and Archives Committee report and moved for acceptance. Jim Warren seconded. Discussion followed and motion was approved.

Debbie Meyer read the Referee Committee report and moved for acceptance. Arnold Larsen seconded, motion passed.

The Research Committee report was given by Robert Karrfalt detailing committee activities and committee structure. Karrfalt moved for acceptance, Kathleen Willey seconded. Motion passed.

Dave Svik read the Rules Committee report. Seventeen proposals were received, 10 of those were rejected, one was incorporated into the present rules updates since it was editorial, and six were presented for consideration. Svik moved for acceptance of the report, Debbie Meyer seconded. Discussion followed regarding possible rules changes. Motion passed. The individual rules were then presented to the membership for approval.

Rule proposal number 1 was withdrawn from consideration.

Rule proposal number 2 was moved for acceptance by Svik, Kathleen Willey seconded. Motion passed, rule adopted.

Rule proposal number 3 was moved for acceptance by Svik, Arnold Larsen seconded. Motion passed, rule adopted.

Rule proposal number 4 was moved for acceptance by Svik, Kathleen Willey seconded. Motion passed, rule adopted.

Rule proposal number 5 was moved for acceptance by Svik, Debbie Meyer seconded. Motion passed, rule adopted.

Rule proposal number 6 was withdrawn from consideration.

The Seed Standardization Committee report was given by Rodger Danielson. He reported on the Teaching and Training Manual, Seed Analysis Training courses, and attendees. In addition reports of the Seed Standardization Committee subcommittees were given. Danielson moved for acceptance of the report, Sandy Ednie seconded. Discussion regarding the Teaching and Training Manual and its publication status and quantity needed ensued. SCST feels that initial demand for the publication may be higher than anticipated and that prepublication orders should be taken. Motion to accept report passed. No amendments presented.

Sandy Ednie gave the AOSA/ISTA Harmonization Committee report, eight of the 15 issues being considered have been proposed for a rules change, one was dropped, and two have been ruled nonsignificant by the European community. Ednie advised that there is a continued need for the committee, discussed its progress, and the process the committee uses. Ednie moved for acceptance of the report. Susan Maxon seconded and motion passed.

Arnold Larsen presented the AOSCA Advisory Committee report. The committee's progress and discussions with AOSCA were outlined. Larsen moved and Dennis Brown seconded. Motion passed.

Ellen Chirco presented the Audit Committee report. The AOSA books were found to be in order and items audited balanced. Chirco moved for acceptance of her report. Kathleen Willey seconded. Motion passed.

The Budget Committee report was given by Debbie Meyer. Meyer explained the various columns and projected categories. Meyer moved for acceptance of her report. Mark Haffdahl seconded. Discussion ensued regarding budget and expenditures. Motion passed.

CAST report was read by Wayne Guerke for Dan Niffenegger. It outlined the concerns and directions of CAST. Arnold Larsen moved for acceptance of the report, Jim Lair seconded. Motion passed.

Wayne Guerke gave the Certification of Analysts Committee report. This past year 22 candidates for Certified Analyst were tested. The regional breakdown is as follows: Southwest Region—6, Northwest Region—9, Southern Region—7. There were 17 successful candidates. There are now 228 certified analysts within AOSA in 38 states and 2 federal laboratories. The committee will be updating the exam and nomenclature. The Certification of Analysts Committee will become a standing committee as directed by the Executive Board in 1991. Guerke moved for acceptance of the report, Debbie Meyer seconded. Motion passed.

The Constitution Committee report was given by Ellen Chirco. It included discussion on changes necessary to update the constitution and the concerns of the membership regarding the election process. Chirco moved for acceptance of the report and Dick Lawson seconded. Motion passed.

The Meeting Place Committee report was given by Larry Nees. He congratulated the hosts for the current meeting and then reviewed meeting places for the next two years. No invitations to host the 1995 meeting have been extended. Nees moved for acceptance of the report. Susan Maxon seconded, motion passed.

Merit Award Committee report was given by Wayne Guerke. Rodger Danielson was presented the Merit Award of 1992 at the annual banquet of the Association. Wayne Guerke moved for acceptance, Sandy Ednie seconded. Motion passed.

Dick Lawson gave the Necrology Committee report. Three former associates of AOSA passed away and were reported on. Lawson moved for acceptance of the report, Sandy Ednie seconded. Motion passed.

The Nomenclature Committee report was read by Wayne Guerke for Bob Gunn. Instructions were included in the written report for accessing the USDA-ARS GRIN system. James Warren moved for acceptance of the report, Susan Maxon seconded. Motion passed.

Wayne Guerke reported on the Photographic Seed Identification Committee activities and moved for acceptance of the report. Ellen Chirco seconded and motion passed.

The Program Committee report was given by Debbie Meyer. The break from the traditional format was mentioned and thanks were given to the various meeting organizers and hosts. Meyer moved for acceptance of the report. Susan Maxon seconded, motion passed.

The Resolutions Committee report was given by Wayne Guerke. Three resolutions were received and are being developed. The first is regarding the continued funding of the Federal Seed Branch, the second is for Doug Ashton in appreciation for development of the Seedling Evaluation Handbook, the third is the courtesy resolution to the hosts of the annual meeting. A motion was made by Sandy Ednie for acceptance of the report. Rodger Danielson seconded and motion passed. The individual resolutions were presented with resolution number one being moved for acceptance by Rodger Danielson. Jim Lair seconded, motion passed with the Federal Seed Laboratory abstaining. Resolution number two is being developed by Wayne Guerke and Dan Niffenegger. Motion to adopt the completed resolution by Dennis Brown, Loren Wiesner

seconded. Motion passed. Resolution number three thanking the hosts for the efforts leading to a successful meeting was moved for adoption by Kathleen Willey. Mark Haffdahl seconded. Roger Osburn received a standing ovation and motion passed.

The Joint SCST-AOSA Computer Committee report was given by Jim Lair. Their past efforts and future goals were outlined. Jim Lair moved for acceptance of the report. Arnold Larsen seconded. Motion passed.

The Seedling Evaluation Committee report was presented by Doug Ashton. Ashton reported that the handbook is being printed and soon to be distributed. Handbook 35 on seedling evaluation will be in a larger format (8½ x 11 inches) with a three ring binder. Ashton thanked all the committee members who have worked on and contributed to the handbook since its beginning. Ashton moved for acceptance of the report, Arnold Larsen seconded. Discussion followed regarding the adoption date with October 1, 1992, being agreed upon. Motion passed.

The Symposium Committee report was given by James Warren. Warren recognized the efforts of the Symposium committee and moved for acceptance. Rodger Danielson seconded, and motion passed.

The Affiliates Committee report was given by Wayne Guerke. The committee met at 10:00 a.m., June 11, 1992. The following representatives were present: ASTA, Ms. Leslie Cahill; AASCO, Mr. Larry Nees; AOSCA, Mr. Bob Burdett; CSAC, Ms. Kathy Breadner; ISTA, Mr. Simon Cooper; SCST, Mr. Quentin Schultz. Invitations were extended to the affiliates to attend the next annual meeting. Guerke moved for acceptance of the report. Sandy Ednie seconded, and motion passed.

No old business was brought forward.

New Business: The Sweetclover Copper Sulfate test moratorium was discussed. Loren Wiesner moved for adoption of a moratorium as stated in the Executive Board meeting minutes. Bob Karrfalt second. Motion passed.

Dr. Charles Baskin was congratulated for his terms of office and guidance provided to the Association. Debbie Meyer was congratulated by President Wayne Guerke for her untiring efforts for the Association in stepping into the acting vice president position.

The Nominations committee report was given by Wayne Guerke for Richard Kochevar. The nominations were read and the election explained to the membership. Two separate elections were held. The elected individuals were presented. Jim Lair was elected President, and Debbie Meyer Vice President. Executive Board members elected were Jim Warren, 3 year term; Tim Gutormson, 3 year term; Dixie Ogle, 1 year term. Arnold Larsen moved for acceptance of the report, Dennis Brown seconded. Motion passed.

Elected officers were installed and outgoing President Wayne Guerke expressed his appreciation to the Association. President Jim Lair presented his comments. Rodger Danielson moved to adjourn. Ellen Chirco seconded. Motion passed. Meeting adjourned at 4:55 p.m.

Respectfully submitted,

Larry J. Prentice, Secretary-Treasurer

AOSA / SCST MEETING ATTENDEES

Abdel-Aal, Mahmoud Ohio State University	Cahill, Leslie American Seed Trade Association
Anderson, Bradley Merrick & Company	Caldon, Vicky Roberts Seed Company
Anfinrud, Mark Interstate Payco Seed Co.	Callahan, Zoe So. Valley Seed Testing
Ashton, Doug Agriculture Canada	Cameron, Sharon Servi-Tech
Atkins, Barbara Seed Testing of America	Cannon, Sue Oklahoma Dept. of Agriculture
Banks, Donald Oklahoma State University	Carrillo, David Royal Sluis, Inc.
Banyankiye, Pegase Mississippi State University	Chason, Wallace Florida Department of Agriculture
Baramburiye, Juvent Mississippi State University	Connett, Randall Merrick & Company
Baskin, Charles Mississippi State University	Cook, Cathy Asgrow Seed Co.
Beckwith, Wayne Johnston Seed Company	Cook, Gary Illinois Crop Improvement Assn.
Blakely Lisa AgriPro Biosciences	Cooper, Simon ISTA—Scotland
Boukary, Hama Mississippi State University	Copeland, Dorothy Oklahoma State Seed Lab
Breadner, Cathy Canadian Seed Lab Ltd.	Copeland, Larry Michigan State University
Brewer, Jane Pennington Seeds	Cress, Ruth Dekalb Plant Genetics
Brown, Dennis Virginia Department of Agriculture	Crookham, Diane Crookham Company
Brown, William Agri. Seed Labs, Inc.	Chirco, Ellen New York State Seed Lab
Brownfield, Patricia Rogers NK Seed Co.	Cunningham, Gregory Southwest Seed Company
Buis, Kevin Hulsey Seed Lab, Inc.	Curry, Daniel Iowa State University
Burdett, Robert AOSCA—President	Danielson, Rodger Oregon State Seed Lab
Butler, Betty Southern States Coop.	Daugherty, Sandra Cal/West Seeds

Dideriksen, Michael
Hilleshog Mono-hy Inc.

Dill, Tonya
Michigan Crop Improvement Assn.

Dionne, Nancy
Pioneer Hy-Bred Inc.

Dunfield, Terry
Northrup King

Durig, Linda
Isolab, Inc.

Duttenhoffer, Margaret
Abbott & Cobb, Inc.

Ednie, Sandy
Agriculture Canada

Edwards, Robert
Retired

Elias, Sabry
Michigan State University

Phillip, Ernst
CIBA-GEIGY Seed Division

Fabrizius, Eric
University of Kentucky

Fenderson, Gail
Retired—OSDA

Ferguson, Janet
North Carolina State University

Finley, Ellen
Georgia Department of Agriculture

Fleege, Lew
Isolab, Inc.

Follick, Loretta
Indiana State Seed Lab

Foster, Neal
Kansas Crop Improvement Assn.

Foster-Stubbs, Sarah
20/20 Seed Labs

Frank, Joan
Dekalb Plant Genetics

Furu, Laura
Ferry-Morse Seed Co.

Galbreth, Alan
Indiana Crop Improvement Assn.

Gill, Nirmal
Germain's Inc.

Goff, John
Cargill Hybrid Seeds

Goff, Randy
Domestic Seed & Supply

Goggi, Susana
Mississippi State University

Greeniaus, Marie
Accu-Test Seed Lab

Grote, Stanley
ICI Seeds

Grover, Mary Ann
Minn. Crop Improvement Assn.

Guerke, Wayne
Georgia Department of Agriculture

Gutormson, Tim
Iowa State University

Haffdahl, Mark
North Dakota State Seed Lab

Hall, Jane
Applewood Seed Co.

Handwerker, Travis
Mid-South Seed Testing

Heckert, Philena
USDA, Federal Seed Lab

Helms, Kay
Texas State Seed Lab

Hoffman, Al
Hoffman Mfg. Co.

Holmbeck, Jane
Pioneer Hy-bred

Hulsey, Jake
Hulsey Seed Lab Inc.

Jamieson, DaNell
Cargill Hybrid Seeds

Jenanyan, Guin
Royal Sluis

Jenanyan, Stan
Royal Sluis

Jensen, Hans
Plant Directorate

- Ji, Tayyab
Mississippi State University
- Johnson, Carolyn
California Crop Improvement Assn.
- Johnson, Paul
Northrup King Co.
- Joo, Pilju
Pioneer Hi-Bred International
- Joseph, Thomas
Tomahawk Seed Lab
- Judd, Randy
Michigan Crop Improvement Assn.
- Juurma, Anne
Betaseed, Inc.
- Kroft, Danette
Rogers NK Seed Co.
- Kulba, Michelle
Alberta Wheat Pool
- Klein, Patricia
National Seed Storage Lab
- Kay, Emma
Southern States Cooperative
- Karrfalt, Robert
National Treed Seed Lab
- Krivanek, Wade
Oklahoma State Seed Lab
- Lair, James
Illinois Department of Agriculture
- Lamb, Joe
Pro-Seed Testing Lab
- Lanier, Norvelle
Southern States Cooperative
- Larsen, Arnold
Colorado Seed Lab
- Lawson, Richard
Idaho State Seed Lab
- LeGrand, F.E.
Okla. Crop Improvement Assn.
- Lewis, Franklin
Agriculture Canada
- Livingstone, Marilyn
Livingstone Seed Lab
- Lusk, Sharon
Agri Seed Testing, Inc.
- McClure, David
Cargill Hybrid Seed
- McCoy, Merlin
Allie Seed (Agway)
- McDonald, Miller
Ohio State University
- McGee, Don
Pennington Seed
- Mahamadou, Ibrahim
Mississippi State University
- Mangold, Gregory
Pioneer Hi-Bred International
- Mari, Jolan
Pan American Seed Co.
- Martens, Ellen
USDA/ARS
- Marx, Russell
Retired – WSDA
- Massa, Steve
Pan American Seed Co.
- Meredith, Nancy
Jacob Hartz Seed Co.
- Matheson, Jan
A.E. McKenzie Co., Ltd.
- Maxon, Susan
Federal Seed Lab
- Meier, Janet
CIBA-GEIGY Seed Division
- Meyer, Deborah
California Dept. of Food & Ag.
- Meyr, Aleta
Ransom Seed Lab
- Miles, Donald
Pioneer Hi-Bred
- Miller, Mark
CIBA-GEIGY Seed Division
- Moore, Robert
North Carolina State University
- Muggli, Michael
Minnesota Dept. of Agriculture
- Murphey, Frank
Anchor Paper Co.

- Niffenegger, Dan
Kentucky State Seed Lab
- Nelson, Craig
Agrigenetics
- Nees, Larry
Indiana State Seed Lab
- Ogle, Dixie
Texas Department of Agriculture
- Osburn, Roger
Oklahoma State Seed Lab
- Ownes, Roxanne
Stoneville Pedigreed Seed
- Oyster, Val
Okla. Crop Improvement Assn.
- Paisley, Janet
Newfield Seed Company Ltd.
- Paquiot, Ketty
Mississippi State University
- Payne, Richard
Federal Seed Lab
- Peters, Jack
Oregon State Seed Lab
- Phillips, Margaret
Oklahoma State Seed Lab
- Prentice, Larry
Neb. Crop Improvement Assn.
- Proulz, Linda
Sunseeds
- Puteh, Adam
University of Kentucky
- Putz, Marlo
Minn. Crop Improvement Assn.
- Rogers-Smellie, Karen
Armadillo Seed Testing
- Reding, Linda
Pioneer Hi-Bred
- Reed, Linda
Oklahoma Dept. of Agriculture
- Reed, J. Roger
Alexandria Seed, Inc.
- Reedy, Margaret
Iowa State University
- Rey, Eric
American Pedigreed Seed Co.
- Ritter, Ruby
Oklahoma State Seed Lab
- Rizvi, Syed
Vaughan's Seed
- Rossel, Norma
Johnny's Selected Seeds
- Ryderm Lynn
Sakata Seed America, Inc.
- Sallee, Ernie
Oklahoma State Seed Lab
- Sayers, Richard
Asgrow Seed Co.
- Schultz, Quentin
Agrigenetics Co.
- Shen, Sue-Chi
Gustafson, Inc.
- Shepherd, Jeanie
Bakker Bros. of Idaho
- Silva, Bella
Alf Christianson Seed Co.
- Sinning, Leslie
Holden's Foundation Seeds
- Skinner, Jan
Oklahoma State Seed Lab
- Smellie, Blaine
Armadillo Seed Testing
- Smilie, Debora
ARK-MO Commercial Seed Lab
- Smith, James
Pennington Seed
- Solinger, Barbara
Ferry Morse Seed Co.
- Stallings, Jewell
North Carolina Dept. of Agriculture
- Stoner, Gail
Agripro Seed Co.
- Stults, Al
Stults Scientific Engineering Co.
- Stults, Sandra
Stults Scientific Engineering Co.

- | | |
|--|--|
| Svik, David
Nebraska Dept. of Agriculture | Vivrette, Nancy
Ransom Seed Laboratory |
| Swan, Glenna
Dekalb Plant Genetics | Vogel, Thomas
California Seed Association |
| Tekrony, Dennis
University of Kentucky | Wade, William
Conviron |
| Tevis, Karen
Northrup King. Co. | Waibel, Gil
Ferry Morse Seed Co. |
| Tiedje, Chris
Michigan Crop Improvement Assn. | Walls, Stephen
University of Arkansas |
| Tolliver, Jean
Delta and Pine Land Co. | Warren, James
North Carolina Dept. of Agriculture |
| Trowbridge, Mary Ann
Rogers NK Seed Co. | Watts, Brenda
W-D Seed Growers, Inc. |
| Tryon, Timothy
Loveland Industries, Inc. | Weidmaier, Cathy
Research Seeds, Inc. |
| Tucker, Ann
Michigan Crop Improvement Assn. | Wherry, Cindy
Anchor Paper Co. |
| Ung, Ha
Petoseed Company, Inc. | White, George
USDA, ARC |
| Vandervelden, Evelyn
Evergreen Seed Lab | Wiesner, Floyd
Research Seed, Inc. |
| Vankus, Victor
National Tree Seed Lab | Wiesner, Loren
National Seed Storage Lab |
| Varela, Sue
Gustafson, Inc. | Wilhoit, Mary
Reed Seeds, Inc. |
| Vaughan, Charles
Mississippi State University | Wiley, Kathleen
Kansas State Board of Agriculture |
| Vines, Joseph
South Carolina Dept. of Agriculture | Young, Rodney
Federal Seed Lab |

SECRETARY'S REPORT

June 1, 1992

We like to say that we are never too old to learn, but I would like to say that sometimes it can get very tiring. I have been attempting to learn the ropes of being your new Secretary-Treasurer this past year and have at times found it frustrating and at other times rewarding. I have a new appreciation for Jim Lair's frustration with subscription agencies and for the number of hours that he committed to the job. I know that many of you do not realize that this is really a full-time job and takes a commitment not only from the individual doing the job but from their family as well. It would be nice to be able to sit back and delegate the responsibilities to my secretary or lab assistant, but we are in the same position as most public entities—facing tight budgets and elimination of positions. The result is that our volunteer commitments are done outside of office hours and no longer at work.

This past year I have been busy searching Jim's old files for evidence that payments have been made for certain subscriptions, setting up files in a database for inventory, orders, customer profiles, subscriptions, membership, attempting to keep orders shipped, fulfilling claims for past issues that were paid for, setting up a filing system for hard copies by account type and number, answering correspondence and surveys from various organizations, trying to stay current with the bank books and getting very frustrated with people who don't understand subscription years. It really is a lot of fun, and I hope that I will eventually catch up with the work load.

The Association is at a point where many of its previous publications have become very outdated but not obsolete. This will require frequent updates or entirely new publications. All of these are expensive for an organization whose dues-paying membership is outnumbered by the honorary members and complimentary subscriptions. Our cash reserves are dwindling each year, and it will require some basic changes to be made in the direction of AOSA and its method of conducting business. I believe that we need to not only budget for the current year but for the next 5 years, develop long-range goals and projects leading to publications, seek outside funding sources for our accomplishments, and solicit new subscribers to our Journal and News Letter. This will help keep dues at present levels and ensure a viable organization for future seed testing technologies.

Larry J. Prentice, Secretary-Treasurer

TREASURER'S REPORT**BALANCE SHEET**

Fiscal Year Start Date: July 1, 1991

prepared June 15, 1992

ASSETS

Checking Account (NBC Bank)	4382.67
Money Market Account (NBC Bank)	22594.15
CD #918539 AOSA rate 6.75% matures 7-24-92	2102.97
CD #918551 AOSA rate 4.75% matures 7-31-92	2090.06
CD #918667 AOSA rate 4.50% matures 10-26-92	3088.40
Total Cash Assets	34258.25

INCOME

News Letter Back Issues	705.50
Journal Back Issues	1797.50
Analysis Report Form Instructions	12.00
Blowing Procedure Handbook #25	30.00
Browse Shrubs & Forbs Book	75.00
Classification Handbook #25	28.00
Cultivar Purity Handbook	3600.00
Micro-assay Fungicide Test Bulletins	3.00
Phenol Test Procedures	13.00
Rhizobia Growth Test Bulletins	30.00
Tetrazolium Testing Handbook	612.00
Vigor Test Handbook	1425.00
Vigor Test Updates	55.00
Calibration Samples (Kty blue)	150.00
Calibration Samples (Orchardgs)	80.00
Rules Binders	255.50
Rules Main Body	2268.00
Rules Updates (89 + 90 yr), + (91 yr)	2120.00
Shipping & Handling	1055.48
Journal Subscriptions	3577.50
News Letters Supscriptions	3820.00
Misc. Sales	2.00
Dues (Associate) annual	1600.00
Dues (Offical Labs) annual	8700.00
Dues (SCST affiliation/mbr) annual	4360.00
Journal Page Fees	2550.00
Research (Private Donations & AOSA's)	6000.00
FY 91 Acct. Interest Income	815.61
Profits Kentucky AOSA/SCST Meeting	6494.34
Accts Receivable Income (Previous Years)	8648.46
Total Income	52234.43

EXPENSES

Accounts Receivable writeoff (FY 91)	5469.50
Annual Meeting Allowance	1000.00
Bank Fees/Refunds	388.75
Research Fund Transfer	3000.00
Research Project Funding	4500.00
Research Paper Contest	175.00
CAST Dues Donation	110.50
Tax Preparation	175.00
Misc. Under \$50.00	161.13
SCST Meeting Profit	3247.17
AOSA Officer Travel	1506.16
Office Expense Computer Charges	1717.74
Office Expense Supplies	677.88
Office Expense Postage	1594.09
Office Expense Misc.	229.95
Office Expense File Transfer	583.85

Journal Expense	15232.49
News Letter Expense	7807.32
Booklet Expense	2218.39
Total Expense	49794.92

Starting Balance	39326.43
Income	52234.43
Total Income	91560.86
Total Expense	-49794.92
Total Assets	41765.94

STANDING COMMITTEE REPORTS

EDITORIAL COMMITTEE

Journal of Seed Technology—Dr. Loren E. Wiesner, Editor

The Association would like to thank the Associate Editors who have conducted timely reviews of all manuscripts received:

Dr. Jan Ferguson (1994)
 Dr. Norm Hopper (1994)
 Dr. Larry Copeland (1992)
 Dr. Dennis TeKrony (1992)
 Dr. Don Grabe (1993)
 Dr. Miller McDonald (1993)

The Association would also like to recognize the efforts of all reviewers who have reviewed manuscripts during the past year. The Journal could not be published if it were not for their efforts.

We have received nine manuscripts during 1991–92, five of these manuscripts are still in review. The time for completing a manuscript review is approximately seven months. When analyzing the manuscripts published in Volume 15, we find that our acceptance rate is 61%.

Volumes 15 (1) and 15 (2) were sent to subscribers and volume 16 (1) should be at the printer now; however, only two manuscripts are available for publishing. Due to the lack of manuscripts for publishing, I would recommend that only one issue of volume 16 be published.

The Journal will use the metric system, but if authors wish to include the English units, they can do so by placing them in parentheses (). SI units can also be used but are not required. When referencing the "Rules for Testing Seeds" the following example should be followed:

Association of Official Seed Analysts. 1988. Rules for Testing Seeds. Vol. 12(3) p.

The 1991 symposium on seed pathology has not been published, when it has been reviewed it will be published in a special section of the Journal.

The 1991 Rules Revisions were printed and distributed. The Editor would like to thank the Rules Committee chairman and his committee for reviewing the galley proofs of the Rules revisions.

Handbook—Larry Copeland, Editor

The "Seedling Evaluation Handbook" has been printed and will be distributed soon. The "Vigor Testings Handbook" cold test procedures have been printed and will be distributed soon.

Science Education—Arnold Larsen, Editor

Handbook 25 has been reviewed by Dr. John Wiersema, USDA-ARS Taxonomist, and returned to the Editor within the last two weeks. The Editor will integrate the revisions into the text of the handbook and make final corrections. The next step will be to obtain printing approval from the Executive Board. An important addition to the listings of each species will be a numerical reference to the Germplasm Resource Information Network. The completion of this effort would not have been possible without the help of Travis Handwerker.

News Letter—Larry Prentice, Editor

Three issues of the News Letter were published in 1991–92. Those published were: Vol. 65 (3) Sept., Vol. 66 (1) Feb., and Vol. 66 (2) May. The Editor would like to thank all individuals who submitted materials for publication of the News Letter.

Loren E. Wiesner, Chairman

LEGISLATIVE COMMITTEE

CHANGES IN STATE SEED LAW

Arkansas	Attachment July 1.
Florida	Effective July 1, 1992.
Idaho	Amendments to labeling barley, dry-edible beans, wheat. Amendments to labeling variety name for which U.S. certification of plant variety protection issued. Notify in writing the proprietor of any PVP, a violation has occurred. All amendments effective July 1, 1991. December 1990. 1. Genus & species of <i>Elytrigia repens</i> was added for Quackgrass. 2. Tolerance of 45 restricted noxious weed seeds per pound was added for Wheatgrass species.
Iowa	Changes have been amended, however, not available.
Kansas	Amendments have restructured the registration requirements for seed sellers, adjusted fees, definitions of horticulture seeds.
Kentucky	Possible changes may be made in July.
North Carolina	Amendment to charge 2 cents per container of seed inspection fee no longer collected by sale of NCDA stamps or tags. All fees collected by Seed Reporting System. Bond requirement for fee Reporting System repealed.

Ohio	Agriculture Seed amendment allows the sale of coated seeds. Effective June 1992.
Arkansas	Attachment January 1992.
Canada	See attachment of PM table. Effective October 31, 1991.
Maryland	Seed testing fees effective July 1, 1991. Changes in certified seed fees and standards. Effective July 1, 1991.
Missouri	Rule specifies who may obtain cost-free seed analysis. Effective January 1, 1992. Amendment changes the wording to be consistent with statute on weed seed classification. Effective January 13, 1992. Rule amended to relieve need for a form. Effective February 6, 1992. Germination is no longer a factor in Missouri seed certification. Effective with 1991 soybean crop year. Certified seed must continue to meet the standards for genetic and varietal purity, pure seed, inert, crop and weed seed content. Germination, however, will not be a factor for final certification nor for issuing certification tags/labels.
New York	Cornell University—official Seed Certifying Agency.
North Dakota	Permits to persons selling seed. State seed mediation board changed to state seed arbitration board.
Texas	Labeling of agriculture seeds. Effective January 1, 1992.

NEW LEGISLATION EFFECTIVE DATE FOR EACH STATE

Alabama	
Alaska	Jan. 1 or July 1
Arizona	90 days after Governor's signature
Arkansas	July, Jan., March every other year
Canada	July 1
Colorado	July 1
Delaware	July
Florida	July 1
Georgia	July 1
Hawaii	July 1
Idaho	July 1
Illinois	Jan. or July
Indiana	July 1
Kansas	May–Jan.
Kentucky	July 1
Louisiana	June–July
Maine	90 days after legislation approved
Maryland	July 1
Massachusetts	July 1
Michigan	Jan. 1
Minnesota	July 1 or Jan. 1
Mississippi	July 1
Missouri	Jan.–Feb.

Montana	Oct. 1
Nebraska	May
Nevada	
New Mexico	July 1
New Hampshire	1) Upon passage 2) Jan. 1 of year following passage 3) 30, 60, 90 days after passage
New Jersey	Jan. 1
North Carolina	Varies
North Dakota	July 1 of each odd number year
Ohio	90 days after Governor signs bill
Oklahoma	Nov. 1
Oregon	90 days after legislation—next Jan. 1993
Pennsylvania	
Rhode Island	Jan.
Seed Regulatory & Testing Branch	Unknown
South Carolina	July
South Dakota	July 1
Tennessee	July 1
Texas	Sept. 1
Utah	March 18, 30 days following legislation
Vermont	Spring
Virginia	
Washington	
West Virginia	
Wisconsin	
Wyoming	

Malcolm Sarna, Chairman

LIAISON COMMITTEE

AOSA was represented at the American Seed Trade (ASTA) meeting at San Diego, California, on June 25, 1991, by Rodger Danielson; at the Association of Official Seed Certifying Agencies (AOSCA) at Salt Lake City, Utah, on August 7, 1991, by Wayne Guerke; and again at Las Vegas, Nevada, on February 28, 1992, by Arnold L. Larsen.

At these meetings the participants were advised on many AOSA activities which would impact their various organizations:

1. The status of the ryegrass fluorescence determinations.
2. The progress of the AOSA/ISTA Harmonization Committee.
3. New and upcoming AOSA handbooks.
4. Seed Standardization research funding.
5. Formation of new AOSA committees such as the joint AOSA/SCST computer committee.
6. The status of AOSA associate membership held by SCST members.
7. Efforts to involve interested organizations to familiarize themselves in AOSA activities through the AOSA Committee of Affiliates and extended invitations to attend AOSA/SCST annual meetings in Oklahoma City this June.

The items discussed by other organizations that are of interest to AOSA/SCST members include:

1. Descriptions of certification standards.
2. Definition of "wildflower."
3. Development of seed laws including the further development of RUSSL and the inclusions of arbitration into seed laws.
4. Problems of testing and defining "seed-coating."
5. Developments in the seed industry from "biotechnology."
6. Plant variety protection.
7. Research "indirect" costs.

All persons representing AOSA at these meetings found them to be a rewarding experience.

Arnold L. Larsen, Chairman

MEMBERSHIP COMMITTEE

The Membership Committee received the following applications for membership in the Association under the designated categories:

Associate Membership—Pamela K. Wegner

Lab Assistant/Bookkeeper
Kansas Crop Improvement Association
2000 Kimball Avenue
Manhattan, KS 66502

Duties: Purity and germination analysis, with some supervision duties. Generates analysis reports and billing for analysis work provided.

Honorary Membership—T. Wayne Still

Director, Kentucky State Seed Program, retired
801 Cahaba Road
Lexington, KY 40502

Supporting documentation was received for all applicants, and the committee recommends the acceptance of these candidates for membership.

The committee also received requests from two Associate Members to cancel their membership because of conflict with SCST policy on Crop Improvement employees. Such policy has stated that Crop Improvement staff members who maintain active RST status in SCST and are also AOSA Associate Members would lose their active status in SCST and would forfeit their official RST seals. Neal Foster of the Kansas Crop Improvement Association requested cancellation of his Associate membership on Dec. 24, 1991, because of his RST status in SCST. Chris Tiedje of the Michigan Crop Improvement Association also requested cancellation of his recently granted Associate Membership on Mar. 4, 1992, because of his intent to take the RST examination at the Oklahoma City meeting. Both requests were granted during the past year.

Larry W. Nees, Chairman

PUBLIC SERVICE AND ARCHIVES COMMITTEE

The Public Service and Archives committee was not very busy this past year. I distributed pamphlets to approximately 50 individuals or firms relating information on seed testing careers, and two sets of slides were distributed to labs. One commented that the slides were out of date, and they are in the process of producing up-to-date slides on the same subject matter. They will provide AOSA with a complete set.

In addition I have been in contact with the Archivist at Iowa State University regarding materials which should be included in the archives in the future.

I hope to inventory the materials on hand and publish a list of items available for loan in future News Letters. Currently, everything is still in the boxes that Jim Lair packed for moving.

Larry J. Prentice, Chairman

JOINT AOSA REFEREE / SCST RESEARCH COMMITTEE

Eleven of the 12 AOSA/SCST Regional Referee projects planned for 1991–1992 were completed, and the project reports, along with reports of two special referee projects were presented on Tuesday, June 16.

Projects for 1992–93 were selected during the regional planning sessions. Copies of the proposed project titles will be published in the AOSA News Letter and SCST Seed Technologist News.

Work continued on revision of the committee guidelines, regional mailing list and past referee project dBase file. The dBase file now includes all projects from 1970 through 1990. Information pertaining to the dBase is available from the California State Seed Laboratory.

The committee goal for 1992–93 is to add examples to the committee guidelines of statistical methods in addition to the Tattersfield Method, which might be used for referee data analysis.

The regional chair terms of Mark Haffdahl, Region II, and Jewell Stallings, Region V, expire at the close of the 1992 meeting. Kathleen Willey of the Kansas State Seed Laboratory will take over as chair for region II and Jewell Stallings has consented to a second term as chair of Region V.

I wish to thank all the regional chairs, project coordinators, and participating laboratories for giving of their valuable time and energy. Additionally, I thank Dan Niffenegger for generously offering his statistical services.

The following abstracts were submitted by the 1991–92 regional project coordinators:

Region I—Northwest

Identification and Separation of Look Alike Species

Richard Lawson, Idaho State Seed Laboratory

The purpose of this referee was to compare species which were considered difficult to separate as purity contaminants. Ten comparisons were selected from analyst's suggestions which included 22 species from 18 genera and 8 families. Ten of the species were used more than once but in different forms. A total of 28 labs asked to participate with 7 official and

8 commercial labs responding from the round robin. The mean score of the 15 labs was 81% with a range of 24% from 96 to 72%. Only 1 lab obtained a score of 90% or better. All labs correctly identified the comparison of poison hemlock from water-hemlock. The key for a high score was to be familiar with the different forms a contaminant may be found in a sample, especially the caryopsis as well as the floret forms of the grass species. Species in the genera *Setaria*, *Panicum* and *Echinochloa* caused the most difficulty and needed to be reviewed. The one species most commonly missed was *Collinsia* spp. of the Scrophulariaceae (Figwort) family in comparison to Buckhorn plantain. All labs identified the bur of Cocklebur but not the seed, and several labs missed the comparison with wild licorice of the Fabaceae (Pea family) as both the bur and seed. A number of problem separations were shown and need further review by the laboratories.

Comparison of Abnormal and Normal Interpretation in 3 Lots of Sweet Corn

Danette Kroft, Rogers NK Seed Co.
Diane Crookham, Crookham Seed Co.

The purpose of this referee was to determine the amount of variability among laboratories germinating SH2 sweet corn in rolled towels (RT) and to determine if variability can be reduced by testing in sand or soil (S). Three seed lots from three crop years with various root and/or leaf-coleoptile problems were selected. The 16 participating laboratories were instructed to plant the three samples in RT and in S following the standard AOSA test procedures. Data categories included: normal, abnormal with short roots, abnormal with leaves less than half the length of the coleoptile, all other abnormal seedlings and dead seed. Additional information submitted by participants included: sand and/or soil types, temperature regimes, and test duration.

Sample 1, demonstrating variation in root length, mean germination in RT was 67% and 84% in S. Abnormals due to short roots ranged from 4–49% in RT and 0–22% in S. Sample 2, selected for variation in leaf length within the coleoptile, mean germination in RT was 60% compared to 79% in S. Abnormals due to short leaves ranged from 3–29% in RT and 0–30% in S. One laboratory appeared to be biasing the S result, and when removed the range of abnormals was 0–12%. Sample 3 was an example of a high germinating lot. Mean germination was 92% in RT and 93% in S.

In samples with marked abnormalities, variation between labs was greater in RT than S. Possible sources of RT test variation include: initial moisture content of toweling, addition of water during test, position of seed within the towels, amount and duration of light, optional extension of test period, and seedling evaluation interpretation. Although types of sand/soil varied, the range of abnormal seedlings appears narrower in this test medium.

Region II—Midwest

Pasture Mix Purity: Different Particle Weight/Size Ratios Perry Bohn, Asgrow Seed Company

Our 1991–1992 SCST Region II—Midwest Referee consisted of two pasture mixes, each with different particle weight and size ratios. The first mixture, designated “uncontrolled” sample, was taken from a prepackaged commercial mixture comprised of 8 crops for a total of 11 components. The second mixture, designated “controlled” sample, was prepared by the project coordinator and consisted of a combination of individual crop components of six similar species, for a total of 9 components.

Two 20 gram samples were sent to each participating laboratory. The labs were asked to divide down each to a 5 gram working sample using their own method. Instructions were to conduct a purity analysis on each and record components found by weights and percentages. Twenty-seven labs participated with the “uncontrolled” sample and 29 labs participated with the “controlled” sample of this referee. Twelve of these labs were official, with one lab submitting results from three analysts. One commercial lab submitted results from two analysts.

The purpose of the “uncontrolled” pasture mix purity was to compare component deficiencies found among labs to the seed lot label. Mentioned concerns were that of the lighter seed and heavier seed separating/settling within that unit due to weight and size. Since over 33% of the components were chaffy, the chaffy seed special tolerances were applied. Three components showed apparent deficiencies. Of the lighter seed, seven labs reported that the Timothy had a deficiency range from .07 to 1.81%. Of the heavier seed, three labs reported Kentucky-31 Tall Fescue to have deficiency ranging from .30 to .73%, and four labs reported the Orchardgrass range from .27 to 1.30%. Fifty-nine percent of the participating labs having no knowledge of the label found their sample to have no apparent deficiencies. The remaining labs found the Timothy having the largest range of deficiency. Overall, these results revealed high consistency among laboratories.

The purpose of the “controlled” pasture mix purity was mainly to compare laboratory differences with separation of similar components. The weighed percentages for each sample packet were controlled to 4 decimals but taken from 6 individual lots of “impure” seed. This project revealed great differences in percentages reported on certain crops. The chaffy grass tolerances were applied since over 33% of the components were chaffy species. Because label information was not available, results were compared with the percentage of components by weight determined by the project coordinator. This procedure, however, provides an untrue evaluation of deficiencies due to the unknown content of other crop inert and weed seed components.

Sunflower Germination on Diseased Seed Comparing 20°C to 20–30°C

Mark Haffdahl, North Dakota State Seed Laboratory

The purpose of this referee was to determine the effect of germination temperature (20°C vs 20–30°C) on the final germination of sunflower

seed which had exhibited seedling decay on previous tests. Two samples of seed were sent to 67 laboratories along with instructions to plant each sample at both 20° and 20–30°C. Results were received from 39 labs. They showed a 6.1% increase in germination using 20°C. These results were determined by the Plant Diagnostic Laboratory at NDSU to be "Rhizopus." This fungus is more active in warm moist conditions and is not considered to be a field pathogen.

Region III—Northeast

SH₂ Sweet Corn Germination

Louis Labs, Maryland State Seed Laboratory

This SH₂ sweet corn germination test referee was run to explore another possible way to reduce variability of results among laboratories. Each laboratory planted 400 seeds according to the AOSA rules and took readings of normal seedlings at 7, 9 and 10 days. The germination test was extended by two days as provided in the current AOSA Rules and by three days. Results show that there was a reduction in both, among and within laboratory variation, when the test duration was extended to 10 days. With this lot of seed, analysts also observed that the roots were very short and/or weak. SH₂ sweet corn germination often differs from other corn germination because of short roots and may have the leaf extending up less than 1/2 of the coleoptile. While extending the test to 10 days may be of some value, more lots of SH₂ sweet corn need to be tested. It may also be necessary to explore the effect of light on the growth of the seedling.

Region IV—Southwest

Defining Physiological Necrosis in Lettuce

David Carrillo, Royal Sluis, Inc.

Three lots of lettuce were sent to different labs to determine how they evaluated the appearance of physiological necrosis on the cotyledons. There was good agreement among labs on two of the samples; one had no physiological necrosis but did have a lot of damage on the outside of the cotyledons, and one had very little physiological necrosis. The third sample had between 15–20% abnormals due to physiological necrosis based on tests performed at Royal Sluis, Inc. seed lab. Half of the seed labs were out of tolerance for germination on this sample.

Comparison of AOSA and ISTA Temperatures on the Germination of Sorghum

Terry Dunfield, Northrup King Co.

The purpose of this referee was to compare ISTA (25°C) and AOSA (20–30°C) temperatures for germinating sorghum seed. Participating laboratories were sent a homogeneous sample of sorghum and instructed to plant and evaluate one test according to the AOSA rules and a second test according to the ISTA rules. Twenty-five laboratories complied with the paired test format. A t-test was made to compare AOSA-derived percentages (range 26–86%) with ISTA-derived results (range 31–89%). The test

revealed no significant difference between the overall AOSA and ISTA procedures. There were at least 10 treatment variables contributing to the reported percentages: 1) lab to lab variation, 2) ISTA vs. AOSA definition of normal sprouts, 3) temperature, 4) moisture, 5) prechill vs. no prechill, 6) light intensity, 7) substrate, 8) horizontal or vertical position of substrate, 9) light duration, and 10) performance of first count. Due to the confounding of treatments, it was not possible to determine the reason for variation among reported percentages. This study did not answer the basic question as to whether all ISTA and AOSA laboratories should be encouraged to use identical rules for testing sorghum seed for germination or if one method was superior in providing the most favorable conditions for germination. Since the range in test results were extreme and there was no significant statistical difference between the two procedures, this indicates a need to refine both AOSA and ISTA testing procedures. A more exacting referee could address the variables encountered in this referee and thus help establish a more definitive AOSA and ISTA procedure for testing sorghum seed.

Region V—Southern

Argentine Bahiagrass Purity Analysis
Paul T. Eubanks and Wallace C. Chason
Florida State Seed Laboratory

The AOSA Southern referee project consisted of a purity analysis on Argentine bahiagrass. The primary focus of this project was to determine if participating laboratories were able to perform purity analysis within tolerance. A 10-pound sample of Argentine bahiagrass, known to contain ergot, was obtained from a Florida grower. The sample was blended and divided into 26 subsamples which were mailed to laboratories in the Southern region. A copy of the AOSA rules pertaining to inert and pure seed accompanied the results form and sample. Results were received from 21 laboratories. Results from seven laboratories, which have been involved in a bahiagrass check sample program since 1989 and which routinely perform purity analysis on Argentine bahiagrass, were used to determine an average purity analysis. The total inert for these seven laboratories ranged from 21.43% to 31.57% with five of the seven laboratories within tolerance of the average (25.10%). The total inert for all 21 participating laboratories in the Southern regional project ranged from 0.56% to 31.69% with nine of the 21 laboratories within tolerance of the average (25.10%). The wide range of results observed on this referee sample is probably due to the fact that many of the participants do not routinely analyze Argentine bahiagrass. Laboratories that routinely do purity analysis on Argentine bahiagrass recognize the difficulty in obtaining results within normal tolerances. This may be due to sampling, blending, the presence of ergot, and/or rule interpretation. Therefore, some regulatory agencies presently allow more than a 1 × tolerance.

Conclusion: There appears to be a need for a special or broader tolerance applicable to purity analysis on Argentine bahiagrass seed.

Peanut Germination

Mansour Asghari, Hulsey Seed Lab

A referee project was conducted on two samples of Florunner Peanuts in order to assess the germination results. The participants were asked to evaluate the germination results into four categories—normal, abnormal, diseased seedlings, and nongerminated seeds—in order to identify whether there was uniformity in identifying each category among laboratories. The two referee peanut samples, labeled as Sample A and Sample B, were crop of 1990 and 1991, respectively, and were sent to 25 laboratories. It appeared that eight of the 14 responding laboratories had more difficulties with Sample A than with Sample B. Not only was the variation higher with Sample A, but the disparity among the traits were greater per these laboratories. Most laboratories showed more abnormal and/or diseased germination with Sample A than with Sample B. Most laboratories also showed more nongerminated seeds in Sample A than Sample B.

Region VI—Canada

Identification of Canadian Noxious Weed Seeds

Doug Ashton, Central Seed Laboratory, Agriculture Canada, Ottawa

This referee was the fourth in a series of referees covering the Canadian noxious weed species. The purpose of this referee was to familiarize seed analysts with the seeds of some of the more difficult to identify species. Twenty-five specimens were included in the referee representing 24 species. The referee was sent to 36 laboratories, and responses were received from 27 analysts in 23 laboratories. Considering that these were some of the most difficult species to identify, the participants did quite well, with 19 out of the 27 participants (70.4%) scoring better than 75% correct in their responses. The most problems were encountered with *Elymus virginicus* (81% of responses incorrect), *Oxytropis lambertii* (78%), *Galium mollugo* (63%), *Galium spurium* (37%), *Centaurea calcitrapa* (33%), and the caryopsis of *Agropyron repens* (30%). All other species were misidentified by less than 25% of the participants.

Assessment of a Check Sample Method of Evaluation
of Germination Lab Performance

Doug Ashton, Central Seed Laboratory, Agriculture Canada, Ottawa

The purpose of this referee was to demonstrate application of the Tattersfield method of data analysis to a germination laboratory monitoring program and to assess the impact of the calculation method on apparent laboratory performance. Three samples each of barley and soybean were tested by 69 laboratories. Individual laboratory performance was measured by converting germination results to "normal scores" and combining them into bias, precision, and accuracy values. Normal scores were calculated using the observed standard deviation of all the results. To observe the effect of using a fixed standard rather than the standard deviation as part of the calculation, accuracy values were recalculated using the f-factor determined by Miles and used in the calculation of tolerance

tables. Performance on the barley samples was quite good, but for soybean this referee again demonstrated the high level of variability associated with germination testing of this species. Use of the observed standard deviation in the calculations gave a measure of individual laboratory performance relative to the other participants, but overall poor performance could be masked by this procedure. If a fixed standard is to be used in the calculation in place of the observed standard deviation, more research needs to be conducted to determine what this standard should be, and it should take into consideration differences in expected variation encountered with different species.

Deborah Meyer, Chairwoman

RESEARCH COMMITTEE

The Research Committee wishes to extend its sincerest thanks to Dr. Allen Knapp for his capable leadership of this Committee. The Research Committee presently consists of Miller McDonald (Chair), Allen Knapp, Dennis TeKrony, and Loren Wiesner. Activities have included review of Rules proposal changes and oversight of the Subcommittees. In addition, there will be a review of the structure of this Committee that was begun by Dr. Knapp. Presently, the Committee consists of 15 Subcommittees that has resulted in a cumbersome structure. This structure will be reviewed to determine whether it can be more efficiently streamlined. Another activity will be to identify a nominee within the AOSA membership who qualifies for the C.A. Black award. This has been a busy year and Subcommittee Chairs are to be congratulated for the progress they have made in furthering methodology to be used in seed testing. We are indebted to them for their assistance.

1. **Cultivar Purity** (Loren Wiesner, National Seed Storage Laboratory):

Several new Committee members were added. A survey was conducted to determine research needs and the results will be discussed in the open Committee meeting. Objectives for the coming year include completing an isozyme study and selecting new areas for cultivar purity research based on survey findings.

2. **Flower Seed** (Ellen Chirco, New York Agricultural Experiment Station):

A snapdragon referee comparing two testing temperatures was conducted. No Rules changes are contemplated at this time because of the need of additional work. The Committee will continue to examine germination problems of other flower seeds.

3. **Moisture Testing** (Don Grabe, Oregon State University):

The Committee was inactive during the last year.

4. **Rangegrass Analysis** (Tim Gutormson, Iowa State University):

Four rules proposals have been submitted. These included: 1) Buffalograss germination methods, 2) revised wording of section 4.2E, 3) proposed purity and germination methods for *Alopecurus arundinacea* and 4) Add KNO_3 as a fresh and dormant seed requirement for Crambe. In addition to these proposals, and *Alopecurus arundinacea* germination study and a bluegrass purity study were conducted.

Objectives for the coming year include continuing to work on developing standard blowing points and reducing germination testing times as well as developing multiple unit factors for additional species.

5. **Seed Vigor** (Janet Ferguson, North Carolina State University):

The Committee conducted referee tests on TZ vigor of corn and soybeans, initiated a study to evaluate tolerances for the accelerated aging test on soybean, conducted a survey of present accelerated aging test procedures, and provided updates on the Vigor Testing Handbook. Upcoming objectives include updating suggested accelerated aging test procedures for the Vigor Testing Handbook, revision of the "Understanding Seed Vigor" brochure, and development of a Vigor Testing Workshop for the 1993 AOSA/SCST Meeting.

6. **Tree and Shrub Seed** (Robert Karrfalt, National Tree Seed Laboratory):

Samples of *Abies concolor*, *A. magnifica*, *A. grandis*, and *A. fraseri* were distributed to five labs in the U.S. and five labs in Europe for a referee trial of the stratification-redry procedure developed by Carol Leedum in British Columbia. Samples of *Prunus persica* and *Pinus monticola* were distributed to four U.S. laboratories and one lab in Europe for a referee trial of the excised embryo procedure. Limited data have been reported to date because of the long time involved in the *Abies* procedure. Two of the five labs participating in the excised embryo trial have reported results. No rule changes are recommended at this time.

7. **Garden Bean Seed Germination** (Patricia Brownfield, Rogers Brothers):

A 15 sample referee of bean lots, which had germinations of 30% or more, were submitted to various regulatory and private labs. The results will be compiled in 1992-93 and reported at the next meetings.

8. **Tolerances** (Dan Niffenegger, University of Kentucky):

Analytical work was done in 1992 on three different referee tests—sorghum, sweetcorn, and ryegrass. A recommended procedure is evolving for analysis and recording of referee test results. Description of a recommended procedure for quantifying within-test variation and between-lab variation will be included in AOSA referee test guidelines. The Committee will continue to work with the referee committee and the rules committee to develop a protocol for adding new or revised testing methods or species to the Rules for Testing Seeds. The Committee will also focus on developing recommendations for official tolerances for seed quality tests other than purity and germination.

9. **Germination and Dormancy** (Charles Vaughan, Mississippi State University):

Five-pound bags of a mulch-seed-fertilizer produce were sent to 12 AOSA laboratories for analysis and testing. Ten laboratories tested the product and responded to an attached questionnaire that addressed testing protocols. The Committee will review the responses to the questionnaire and determine suitable approaches to testing of this product in the upcoming year.

10. **Seed Conditioning** (Dan Curry, Iowa State University):

The Committee has been inactive during the last year. Dan Curry has been appointed as new Committee Chair to replace Manjit Misra. The Committee will convene at the Meetings and establish its agenda for the upcoming year.

11. **Lolium Labeling** (Malcolm Sarna, Maryland Department of Agriculture):

The Committee has worked with Dr. Dan Niffenegger to resolve specific mathematical questions arising from the ryegrass fluorescence formula adopted last June. Editorial changes have been developed and accepted by the Rules Committee. Other activities for the Committee will be considered at the upcoming meetings.

12. **Seed Pathology** (Betsy Randall-Schadel, North Carolina Department of Agriculture):

A seed pathology resource survey identifying who is conducting seed pathology research and where it is being done was conducted. Verification of results are currently under way, and the responses will be summarized and reported in the next year.

13. **Tetrazolium Evaluation** (Jack Peters, Oregon State Seed Laboratory):

Jack Peters has accepted the Chairmanship of this Committee. Appreciation is extended to Tim Gutormson for his leadership of the Committee. The major objective of the Committee is to discuss revision of the TZ Handbook, reevaluate its format, and establish a time frame that will result in completion of a revised Handbook.

14. **Seed Testing Standardization Research Funding** (Allen Knapp, Iowa State University):

Three research funding proposals were submitted and evaluated by the Committee. The Committee will also evaluate one request for a second and final year of funding for a grant on switchgrass germination. Results of the first year of research on this grant are scheduled to be presented at the annual meetings.

15. **Purity** (Arnold Larsen, Colorado State University):

This committee worked with the Germination Committee on the mulch-seed-fertilizer product problem. In addition, studies concerning ryegrass fluorescence testing, purity component weight precision, seed blower variations, and the completion of Handbook 25, "Uniform Classification of Weed and Crop Seeds" are under way.

Miller McDonald, Chairman

RULES COMMITTEE

The Rules Committee had a very busy year starting in July of 1991 when we began receiving proposals for review for 1992. Seventeen proposals were reviewed by the Committee this past year. Six proposals were approved by the Committee for further consideration at the annual meeting. One proposal was determined to be an editorial change and was incorporated into the 1991 rules changes. Ten proposals were rejected by the Committee for further consideration as possible rules changes.

The six proposals approved by the Committee will be discussed at the Open Rules Committee meeting and voted on by the AOSA members at the business meeting.

In addition, three proposals were submitted by A.B. "Sandy" Ednie, Chairman of the AOSA/ISTA Harmonization Committee, for review by the Rules Committee in February. They appear in the May issue of the News Letter and will also be discussed at the Open Rules Meeting. Because they were submitted for consideration after the deadline, they cannot be voted on at this meeting.

The Chairman accepted the resignation of M.S. Dhaliwal as the representative from Agriculture Canada to the Rules Committee. Dhal has retired from his position at Agriculture Canada. We appreciate his dedicated service to the Committee these past years and wish him well. A new representative from Canada will be appointed at this meeting.

In other business, our Committee assisted the Editorial Committee in preparing and proofing the 1991 Rules for publication.

Rodney Young has also resigned as a regular member of the Rules Committee because he has accepted a position with APHIS. Susan Maxon of the Federal Seed Lab will replace Rodney on the Committee for the rest of his term.

The following rules proposals were voted upon by the members at the AOSA business meeting on Thursday, June 18, 1992.

- Proposal No. 1; Revise section 4.2e; Withdrawn by author prior to vote.
- Proposal No. 2; Reduce final count for buffalograss; Passed by members.
- Proposal No. 3; Addition of creeping foxtail to Rules; Passed by members.
- Proposal No. 4; Addition of KNO_3 for testing crambe; Passed by members.
- Proposal No. 5; Addition of "T" as substratum for flowering flax; Passed by members.
- Proposal No. 6; Addition of rosemary to Rules; Withdrawn by author prior to vote.

The new Rules additions are published in the February 1992 News Letter. Additions passed will take effect on October 1, 1992.

David F. Svik, Chairman

RULES COMMITTEE

Term Expires**Regular Members**

1993

David F. Svik (Chairman)
Nebraska Seed Laboratory
3703 South 14th Street
Lincoln, NE 68502
402-471-2176 FAX 402-479-4172

1994

Susan Maxon (1994)
Federal Seed Laboratory
AMS, USDA, Bldg. 306, Rm. 213
BARC-East; Beltsville, MD 20705
301-504-8089 FAX 301-504-9200

1995

Jim Effenberger (1995)
California Department of Food and Agriculture
Analysis and Identification/Seed Lab
1220 N. Street, Room 340
Sacramento, CA 94271-0001
916-654-1391 FAX 916-654-1018

1996

Malcolm Sarna (1996)
Maryland Dept. of Agriculture Turf and Seed Section
50 Harry S. Truman Parkway
Annapolis, MD 21401
301-841-5960 FAX 301-841-5969

1997

Frank Lewis (1997)
Agriculture Canada, Eastern Seed Lab
Food Production/Inspection
150 Bridgeland Avenue
Toronto, Ontario M6A 3A6 CANADA
613-995-4907 FAX 416-781-6527

Ex-Officio Members

Deborah Meyer (Referee)

Calif. Dept. of Food/Agri.

Seed Laboratory

1220 N. Street, Room 340

Sacramento, CA 94271-0001

916-654-1391 FAX 916-654-1018

Loren Wiesner (Editorial)

National Seed Storage Laboratory

Colorado State University

Ft. Collins, CO 80523

303-484-0402 FAX 304-221-1427

Mark Miller (SCST Rep)

Funk Seeds Inc.

Box 2911

Bloomington, IL 61702

309-829-9461 FAX 800-366-3865

Robert Karrfalt (Research)

National Tree Seed Laboratory

Route 1, Box 182-B

Macon, GA 31020-9696

912-744-3274 FAX 912-744-3314

SEED STANDARDIZATION COMMITTEE

Committee Members: Rodger Danielson (AOSA), Miller McDonald (AOSA), Rodney Young (AOSA), Jim Warren (AOSA), Charles Baskin (AOSA, 1992), Betty Butler (SCST, 1992), Mike O'Neil (SCST, 1993), Dick Sayers (ASTA, 1993), Gurnia Moore (AASCO, 1994), Alan Galbreth (AOSCA, 1994).

The Standardization committee continues to work effectively to promote standardization.

The Teaching and Training subcommittee, chaired by Miller McDonald, has made excellent progress toward development of a Seed Analyst Training Manual. The manual will be presented to the Executive Board for recommendations for publication and review and will be described to membership at large during the Standardization Committee meeting. Initial reviews have been very positive, and we think the document will be an extremely effective training tool.

Four training efforts were sponsored by AOSA. Two Beginning Seed Analyst Short Courses were held—one at Iowa State University with 29 attendees and one at Oregon State University with 21 attendees. A Northeast Seed Analyst Workshop, attended by 36 people, was held in Beltsville, Maryland, on October 17 and 18, 1991. Finally, a poster session by the Idaho State and Oregon State seed laboratories was presented for rangeland scientists May 18–21, 1992, in Boise, Idaho. The purpose of the poster display was to inform seed users how to interpret seed laboratory reports and seed labels when contracting seed.

The Uniformity subcommittee, chaired by Rodney Young, is working closely with the AOSA/SCST referee programs in an attempt to identify sources of nonuniformity in the Rules. The subcommittee published a survey in the September newsletters in order to gather information regarding suspected variation in the interpretation of how purity components are weighed. They found considerable variation and will discuss their findings at the open Standardization meeting. They also are conducting seed weights for species lacking them and will follow up with appropriate Rules proposals.

The Seed Sample Mediation Committee was inactive this year.

Rodger Danielson, Chairman

SPECIAL COMMITTEE REPORTS

COMMITTEE OF AFFILIATES

The AOSA Committee of Affiliates met on Sunday, June 24, 1992, at 10:00 a.m. in Oklahoma City, Oklahoma. The following representatives were in attendance:

American Seed Trade Association (ASTA)

Leslie Cahill, Representative

Association of American Seed Control Officials (AASCO)

Larry Nees, President

Association of American Seed Certifying Agencies (AOSCA)

Robert Burdett, President

Commercial Seed Analysts of Canada (CSAAC)

Catharine Breadner, President

International Seed Testing Association (ISTA)

Simon Cooper, Executive Board member

Society of Commercial Seed Technologists (SCST)

Quentin Schultz, President

AOSA officers were introduced and an update of AOSA activities was presented. Also, administrative guidelines for the committee were discussed.

Each affiliate representative then gave an activity report. The activity reports are not outlined here because they closely parallel the greetings given during the joint AOSA/SCST opening session.

Wayne Guerke, Chairman

AOSA / ISTA RULES HARMONIZATION COMMITTEE

This Committee was formed by AOSA and ISTA in 1989 to address the concerns of USA and EEC countries about the impact of differences in seed testing rules on trading of seed. The Association's desire is to have uniformity in test procedures that are biologically sound and practical. The goal of the committee is to identify significant differences between the AOSA and ISTA Rules for testing seed and develop recommendations on how these differences can be resolved.

The committee met for the first time on June 8, 1990, in Annapolis, Maryland, and reviewed, as a *start*, the 14 differences of major concern to the EEC and USA. The committee agreed that this should be an ongoing process as there are technical differences in the Rules over and above those identified by these two trading partners. The impact of differences between seed testing rules and a review of some of the major differences was summarized in the AOSA's 1990 meeting symposium on "Seed, An International Commodity."

The North American members of the Committee met informally on June 7, 1991, in Lexington, Kentucky, to review progress to date on the action items initiated at the June 1990 meeting. Reports on items 5, 7, 8, 9, and

and 13 were reviewed and discussed. Items 1, 2, 10, 11, 12, 14, and 15 were also discussed.

The outcome of these discussions are as follows:

1. **Size of Working Sample for *Arachis hypogaea*.** Ednie will request the Statistics Committees of both associations to review the limits of accuracy on percentage by weight and numbers per unit weight determinations for peanuts (and similar large seeded crop kinds) using a 500 g working sample size and a 1000 g working sample size.

Progress in 1991–92: This item still has to be actioned.

2. **Procedure for Handling *Juncus tenuis* and other species with seeds of similar size.** Ednie will survey the membership of both Associations to determine the frequency of occurrence of *Juncus* seeds and capsules in seed samples and how frequently they find both capsules and individual seeds at the same time in seed samples.

Progress in 1991–92: This item still has to be actioned.

3. **Use of Uniform Blowing Procedure on *Poa trivialis*.** This question is under review by the ISTA Purity Committee. Ednie will verify if Dr. Knapp transferred technical papers to Dr. Jensen.

Progress in 1991–92: The ISTA Purity Committee has made a Rules change proposal to ISTA to adopt the AOSA Method.

4. **AOSA Weed Seed Definition vs. ISTA 1/2 Seed Rule.** Ednie to discuss feasibility of ISTA, including “stronger” pure seed descriptions for “universal weeds” as is currently done for *Cuscuta* in the ISTA Rules with the chairman of the ISTA Purity Committee.

Progress in 1991–92: This will be actioned at the June 12, 1992, meeting.

5. **Evaluation of *Cuscuta*.** Dr. Wiesner reviewed his paper on this subject. Dr. Wiesner will prepare a rationale for concluding that the AOSA Rules descriptions for classification of inert *Cuscuta* particles provide an equivalent evaluation class as the ISTA “fragile” and therefore results from testing using either rule would provide the same result. This should allow removal of this issue from the list of concerns, and no action for rules changes is seen to be required by AOSA or ISTA. There may be some benefit in clarifying the word fragile. (This issue had been deleted by the EEC as an issue of concern.)

Progress in 1991–92: A progress report will be made at the June 12, 1992, meeting.

6. **Classification of Inert in Large Seeded Leguminosae.** This is being reviewed by the ISTA Purity Committee. Ednie to confirm that Dr. Jensen has the literature citation list provided at the last meeting.

Progress in 1991–92: Action completed. A report will be made at the June 12, 1992, meeting.

7. **Chalcid-Damaged Leguminosae Seeds.** The participants reviewed the report submitted by Dr. Wiesner. It was agreed that both Rules had descriptions that required subjective judgment. Dr. Wiesner will investigate the potential of developing a blowing procedure as a more definitive repeatable procedure for classification of chalcid-damaged seed as inert or "pure seed."

Progress in 1991–92: A report will be made at the June 12, 1992, meeting.

8. **Paper Texture.** Doug Ashton will consult with the ISTA Germination Committee on this issue. Ednie to request the AOSA Germination and Dormancy Committee (Chairman: Dr. C. Vaughan) to cooperate on this issue in developing a common specification sheet. (This item had been eliminated by the EEC as an issue of concern.)

Progress in 1991–92: This item will be actioned at this year's meeting.

9. **Sand and Soil Media.** Dr. Knapp had prepared AOSA Rules change proposals to address this issue. Ednie will determine how these are to be presented to the AOSA Rules Committee for voting.

Progress in 1991–92: Proposals for AOSA Rules changes have been put forward for discussion at the 1992 AOSA meeting.

10. **Seedling Evaluation—Seminal Roots.** Action on this item has not been taken due to its agreed low-risk and impact. This issue should be target for resolution for 1995. (This issue had been eliminated by the EEC as an issue of concern.)

Progress in 1991–92: This item will be discussed at the June 12, 1992, Committee meeting.

11. **Split Coleoptile.** An extensive field and lab study is under way; some data has been gathered but not yet analyzed. The North American collaborators will meet and discuss progress so far during the AOSA meeting.

Progress in 1991–92: The field experiments have been completed and a report on the extensive research will be discussed at the June 12, 1992, Committee meeting and at the 1992 ISTA Congress.

12. **Primary Root Evaluation.** No progress has been made on this item. It was agreed that a 1995 target date would be more reasonable given the risk and impact of the differences.

Progress in 1991–92: The EEC is supporting a research project on this subject for flax and sunflower.

13. **Reporting Results—Germination Retest Procedure.** Doug Ashton presented a report on the comparison of decision using AOSA and ISTA data from retested samples from ISTA laboratories. The draft report will be reviewed by Dr. Niffenegger to determine if the statistical approach used was sound. If this determination is positive, then

a proposal should be made towards a change in the AOSA Rules procedures for retesting.

Progress in 1991–92: A paper on this subject has been published in the May 1992 AOSA News Letter. The issue will be discussed in the June 12, 1992, Committee meeting and in an open meeting at the 1992 AOSA/SCST Annual meeting.

14. **Fresh Ungerminated Seeds.** The ISTA Germination Committee continues to discuss this issue in preparation of an ISTA Rules change proposal. (This issue had been eliminated by the EEC as an issue of concern.)

Progress in 1991–92: An ISTA Rules change proposal has been submitted for discussion and voting at the 1992 ISTA Congress.

15. **Temperature.** An AOSA Rules change proposal has been developed. Ednie will determine how this proposal should be submitted to the AOSA Rules Committee.

Progress in 1991–92: An AOSA Rules Change proposal has been submitted for discussion at the 1992 AOSA/SCST Annual Meeting.

The Committee will also have to develop an action plan on how to collect and process differences between the AOSA and ISTA Rules other than the above 15 discussed issues.

The Committee will meet on June 12, 1992, in Oklahoma City. One item for discussion will be the chairmanship of the Committee and the process for the future.

Committee Members

A.B. Ednie (Chairman)	Agriculture Canada
Arnold Larsen	Colorado State Seed Lab
Loren Wiesner	USDA-ARS National Seed Storage Lab
Allen Knapp	Iowa State University
Hans Arne Jensen	Plant Directorate, Denmark
Doug Ashton	Agriculture Canada

A.B. Ednie, Chairman

AOSCA ADVISORY COMMITTEE

In behalf of AOSA members, please accept our sincere appreciation for your invitation to attend this AOSCA Advisory Committee meeting. The invitation is an affirmation that both Associations recognize the need to exchange information that is of mutual importance. The next joint AOSA/SCST meeting will be in Oklahoma City, June 11–19, 1992, and the AOSA Committee of Affiliates extends an invitation to AOSCA to have a representative attend. I would like to bring the following items of AOSA activities to your attention:

1. The AOSA membership has approved a new method of calculating ryegrass fluorescence for verification of variety and kind. Factors for each variety for both annual and perennial ryegrass will be used instead

of a generic factor for all varieties. The final format for the procedure is printed in the February AOSA News Letter.

2. The AOSA/ISTA Harmonization Committee has made good progress toward resolving 14 major differences between AOSA and ISTA seed testing rules. Resolution of these differences is important to reduce trade barriers with EC countries. The Committee will meet again at the AOSA/SCST meeting in Oklahoma City this June. They will also meet at the ISTA meeting in Argentina this year.
3. The AOSA Seedling Evaluation Handbook has been approved by the membership for publication. This handbook is expected to be in print in mid to late 1992. This handbook will replace Appendix I in the Rules for Testing Seeds, and it will contain representative illustrations to evaluate normal and abnormal seedlings.
4. The AOSA Handbook on the Uniform Classification of Weed and Crop Seeds is in its final stages of development. This handbook should promote uniformity in the usage of both common and botanical names of plant species. Its main purpose is to promote uniformity in the designation of a contaminating seed as a "weed" or "crop."
5. The AOSA Seed Standardization Research Funding program will support two new projects in seed germination for 1991-92. Projects this far have dealt with seed germination which, based on a survey of seed laboratories, was the area determined to need the most attention. The committee is now interested in expanding its efforts to include other areas of seed analysis and is interested in soliciting additional funding support. Contact the committee chairman, Dr. Allen Knapp, at Iowa State University for information concerning the research funding program.
6. A Joint AOSA/SCST Computer Committee has been established. This committee is to study computer resources and communication systems as resources for seed laboratories. Also, AOSA is studying the availability of some of their publications on computer.
7. Deborah Meyer of the California State Seed Laboratory is the Acting Vice President for AOSA until our 1992 June meeting. At the June meeting we will announce our newly elected President and Vice President for 1992-94.
8. Members of the AOSA executive staff have expressed concern over maintaining seed quality through viable state seed programs. Many programs are being cut back, and a few are even being eliminated.
9. It is recommended that certification specifications regarding "germination" may be more appropriately referred to as "viability." This is especially important for rangeland and revegetation species. Also, the term "firm" is antiquated and should be replaced by "viable" or "dormant."

Again, I ask you to send your selected representatives to the next AOSA/SCST meeting this June at Oklahoma City.

Arnold Larsen, Chairman

1992 AUDIT COMMITTEE REPORT

The Audit Committee, consisting of Jim Lair, Debbie Meyer, and I, met on Monday, June 15, 1992, to audit the AOSA books.

The available books and item sales were audited and appeared to be in order.

Ellen M. Chirco, Chairwoman

BUDGET COMMITTEE

Revenue	3-Year Average*	FY 91-92 Projected	FY 91-92 Actual	FY 92-93 Projected
Starting Balance	35,720	39,326.43	39,326.43	35,117
Accounts Receivable	2,427	0	7,795.52	1,500
Convention Profit	8,251	6,494.34	6,494.34	6,000
Interest Income	1,494	815.61	815.61	500
Misc. Income	9	0	0	0
Starting Funds	47,901	46,636.38	54,431.90	43,117
<i>Membership Dues</i>				
Member Laboratories	8,750	8,700.00	7,950.00	8,100
Associate Members	1,658	1,600.00	1,250.00	1,300
SCST Affiliates	4,120	4,360.00	4,495.00	4,200
Membership Income	14,528	14,660.00	13,695.00	13,600
<i>Subscriptions</i>				
News Letter	2,775	3,820.00	1,890.00	3,000
Journal	5,567	3,577.50	4,165.00	3,000
Page Charges JOST	1,955 ²	2,550.00	880.00	1,000
Back Issues, Journal		1,797.50	602.50	350
Back Issues, News Letter		705.50	232.50	350
Subscription Income	10,297	12,450.50	7,770.00	7,700
<i>Publications</i>				
Rules	7,416	4,643.00	3,543.50	4,000
Vigor Handbook	1,612	1,480.00	1,200.00	1,000
Cultivar Purity Handbook	662 ¹	3,600.00	3,275.00	1,000
TZ Handbook	430	612.00	444.00	400
Other Publications	365	199.00	199.00	150
Calibration Samples	383	230.00	160.00	150
Seedling Evaluation Handbook	—	—	—	3,500
Teaching/Training Manual	—	—	—	3,000
Shipping & Handling	0	1,055.48	847.96	800
Publication Income	10,868	11,819.48	9,669.46	14,000
<i>Research Funding</i>				
AOSA Research Fund	3,000 ²	3,000.00	3,000.00	3,000
Other Research Donations	3,420 ²	3,000.00	3,000.00	3,000
Total Research Funds	6,420	6,000.00	6,000.00	6,000
Total Income	90,014	91,566.36	91,566.36	84,417

Expenses	3-Year Average*	FY 91-92 Actual	FY 92-93
<i>General Expenses</i>			
Annual Meeting Allowance	1,000	1,000.00	1,000
Accounts Payable	4,504	5,469.50	3,000
Bank Fees/Refunds	52	145.00	100
Ann. Res. Fund Transfer	3,000	3,000.00	3,000
Res. Project Funding	8,400 ²	4,500.00	6,000
Res. Paper Contest	0	175.00	175
CAST Dues/Donations	1,395	110.50	200
Tax Preparation	150 ¹	175.00	500
Misc. Under \$50	456 ¹	161.13	500
SCST Meeting Profit	4,180 ¹	3,247.17	3,000
Total General Expenses	23,137	17,983.30	17,475
<i>Office Operations</i>			
Insurance Bond	0	0	150
Computer	931	1,717.74	1,900
Supplies	296	677.88	400
Office Postage	1,092	1,594.09	1,600
Miscellaneous	479	229.95	300
Sec/Treas File Transfer	0	583.85	0
Total Office Expenses	2,798	4,803.51	4,350
<i>Travel</i>			
Combined	2,233	—	—
AOSCA Advisory	—	175.00	450
NASDA	—	1,331.16	1,500
ISTA	—	—	3,200
AASCO	—	—	0
AOSCA	—	—	850
ASTA	—	—	800
Total Travel Expenses	2,233	1,506.16	6,800
<i>Publications</i>			
Journal	7,849	15,232.49	10,000
News Letter	7,670	7,807.32	9,000
Handbooks			
Vigor	—	865.76	0
Seedling	2,011 ¹	53.12	9,000
Crop & Weed #25	—	0	1,500†
Seed Identification	—	0	300
Training	—	0	1,500‡
Rules	7,376 ²	1,232.55	1,700
Misc. Handbook Printing	0	66.96	100
Misc. Educ. Expenses	—	—	600
Total Publication Expenses	24,906	25,258.20	33,700
Total Expenses	53,074	49,551.17	62,325
TOTAL REVENUE		91,566.36	84,417
TOTAL EXPENSES		49,551.17	62,325
BALANCE		42,051.19	22,092

¹Based on 1 year ²3-year average based on FY 88-89, FY 89-90, FY 90-91

²Based on 2 years †Future expense of ca. \$7,000

‡To be printed on an as-needed basis

Deborah Meyer, Chairwoman

CAST REPORT

The council for Agricultural Sciences and Technology (CAST) is a consortium of 29 scientific societies, each of which is involved in research and educational programs that impact upon agriculture and food production. CAST also has 3,500 individual members, along with a number of corporate, nonprofit, and associate society members. The purpose of CAST is: 1) To advance the understanding and use of food and agricultural science and technology in the public interest by serving as an unbiased scientific resource group from which the public and government may send information on food and agricultural issues of current concern; 2) to identify developing issues of broad public concern on which food and agricultural scientists and technologists can provide information; 3) to organize task forces of food and agricultural scientists and technologists to assemble the most recent research data related to these issues; and 4) to disseminate the information in an effective form to the public, the news media, and the government, as appropriate.

Reports put out by CAST in early 1992 include: "Preparing U.S. Agriculture for Global Climate Change," "Food Safety: The Interpretation of Risk," and "Pesticides: Minor Uses/Major Issues." Preparation of reports on 21 other topics is under way.

A brochure entitled "The Societies of the Council for Agricultural Science and Technology" was prepared for and distributed to members of Congress in 1992. In it was a statement of the purpose and objectives and other descriptive information about each of the member associations of CAST—including AOSA. Being included gave AOSA visibility at the Congressional level that may be beneficial in the future.

It would be desirable for more AOSA members to join CAST. A spokesperson is needed for the agricultural community on complex social-scientific issues that vitally affect agriculture but are not all that well understood by the urban public and its representatives. A case in point is the issue concerning the minor use of pesticides. Any type of pesticide is branded in some circles as being bad. Those people carrying that message are highly visible. But there is a place for pesticides, and a special problem arises when there is no economic incentive for companies to market pesticides for crops with limited acreage. This topic is covered very well in a 1992 CAST report. I recommend the report for reading by all AOSA members. While reading it, consider what other organization has the mechanism to put together a document such as this. Then consider what legislation might have been passed (or might have been defeated) if this information was not available to members of Congress. Then consider joining CAST.

Dan Niffenegger, Chairman

CERTIFICATION OF ANALYSTS COMMITTEE

Seed analyst certification examinations were administered in three of the five regions to a total of 22 candidates during 1991-92.

The southwest region, Arnold Larsen coordinator, examined six candidates—four for purity and germination, one for purity only, and one for germination only. The northwest region, Richard Lawson coordinator, examined nine candidates—two for purity and germination, six for purity

only, and one for germination only. The southern region, Aaron Palmer coordinator, examined seven candidates—five for purity and germination, one for purity only and one for germination only. Examinations were not administered in the north-central and northeast regions.

A total of 62 examinations (written and practical) were administered to the 22 candidates with a pass-fail ratio of 53:9. The results, by region are:

Region	Purity Examination		Germination Examination	
	Taken	Passed	Taken	Passed
Southwest	9	9	10	10
Northwest	15	9	6	5
Southern	11	10	11	10
	35	28	27	25

Twenty-six certificates were presented to 17 successful candidates at the banquet in recognition of their accomplishments.

We now have in AOSA 228 analysts who are certified in purity, germination, or both purity and germination, representing 38 states and two federal laboratories.

During the coming year the committee plans to review and up the purity and germination written examinations, Dr. Gunn will complete nomenclatural review and consolidation of the regional species lists, and regional exam registration procedures will become more standardized. Also, following the June 11, 1991 motion of the Executive Board, Analyst Certification will be changed to a standing committee.

I want to thank the regional chairs for their work in hosting examinations.

Wayne Guerke and T. Wayne Still, Co-chairmen

CONSTITUTION COMMITTEE

Last year at the annual meeting it was decided that four changes needed to be made to the Constitution during this past year.

1. Separation of by-laws to conform to the format needed for the INCstatus
2. Addition of the Accreditation committee as a Standing Committee.
3. Deleting printing requirements of the minutes in JOST.
4. Addition of the Seed Standardization Committee functions.

The Constitution was then to be printed in the September issue of the News Letter.

To date, additional editing has been done to the Constitution (mostly cosmetic, i.e., realigning paragraphs, etc.). The printing requirement of the minutes in JOST has been removed and the function of the Seed Standardization Committee as been added. It was not printed in the September issue of the News Letter due to the large volume of material that needed to be sent out at that time. The format for INCstatus and the Accreditation Committee information will be completed this next year.

During the past year there was only one major issue brought up for consideration. With the resignation of Steve McGuire, a vacancy for the office of Vice President was created, which ultimately created a need for an elec-

tion for both Vice President and President this year. Only one candidate was available to run for each office.

Bylaw I, Election of Officers and Executive Board Members, states "The ballots for the election of Vice President and Secretary-Treasurer shall include at least two, but no more than three top available candidates for each office, except in the case of a tie vote." The office of President is not mentioned, however.

Also, additional wording needs to be added to resolve this problem of candidates running unopposed, especially if there are no other available candidates.

Ellen M. Chirco, Chairwoman

MEETING PLACE COMMITTEE

Historically, the Meeting Place Committee for this Association has functioned through many periods of "peaks and valleys" in regard to "host interest" and securing invitations to host the annual meeting. The past 12 months would meet the definition of a "valley," since no invitations were submitted for consideration for future meetings. Fortunately, at this point in time, our immediate future is determined for the next two years.

The schedule for future meetings and their hosts are as follows:

1993—COLORADO (Fort Collins). OFFICIAL HOSTS: Arnold Larsen and Loren Wiesner, Colorado Department of Agriculture and USDA-ARS in association with the Front Range Seed Analysts Association

1994—OREGON (Portland). OFFICIAL HOST: Roger Danielson, Oregon State Seed Laboratory

The committee urges anyone who is interested (or willing) to host a future annual meeting to contact us for information about the requirements for hosting the event. We will gladly work with potential host states to supply meeting place information to facilitate advance planning of such event.

The next "OPEN" year is 1995!

Larry W. Nees, Chairman

MERIT AWARD COMMITTEE

The Association of Official Seed Analysts' Merit Award Committee elected Rodger Danielson, Oregon State Seed Laboratory, to receive the Merit Award for 1992. Rodger was awarded the merit certificate at the AOSA/SCST banquet on Wednesday, June 17, 1992.

Wayne Guerke, Chairman

NECROLOGY REPORT

Pauline I. Balbach, 1906–1992

Pauline I. Balbach, 86, died March 27th, 1992 in Normal, Illinois.

Ms. Balbach retired from seed analysis after completing a long and rewarding career in the Indiana State Seed Laboratory at Purdue University in West Lafayette, Indiana. She began her career in the Indiana labora-

tory in 1927 as a purity analyst. After becoming an accomplished seed analyst in both purity and germination, she assisted in instruction and operation of a yearly "seed school" held at Purdue from 1935 to 1970 to train beginning and advanced seed analysts on various seed testing procedures and technologies. She retired in 1972, completing a 45-year career dedicated to seed analysis and technology.

Altice S. "Al" Carter, 1900–1988

Professor Altice S. "Al" Carter, 87, died January 3rd, 1988, at Home Hospital in Lafayette, Indiana.

Professor Carter was retired from Purdue University, where he served in the Purdue Agriculture Experiment Station and was Director of Seed Control and State Chemist Services from 1935 until 1966. He also had served as County Agricultural Agent in Perry, Johnson, and Posey counties in Indiana.

Professor Carter was born in Chandler, Indiana, July 15th, 1900, and had resided in West Lafayette since 1953. He received his Bachelor of Science Degree from Purdue in 1923 and his Master's from the University of Illinois in 1927. He served as president of the Association of American Seed Control Officials, North Central Control Officials Association and Association of Official Seed Analysts. In 1964, Al Carter was the recipient of the AOSA Merit Award. He was a consultant in India and Brazil working on the development of seed control programs in those countries. In 1959 and 1961, he worked for the U.S. Technical Cooperative Mission to India; Rockefeller Foundation in India in 1967 and 1968; and U.S. AID in Brazil in 1965 and 1969. A member of the Executive Council, he was a three-time delegate to the Congress of International Seed Testing Association.

Richard Lawson, Chairman

NOMENCLATURE COMMITTEE

I have had the good fortune to serve as the Chairman of the AOSA Nomenclature Committee since 1974, and I have thoroughly enjoyed bringing the scientific names into harmony for the AOSA Rules for Testing Seeds, Federal Seed Act, Federal Noxious-Weed Act, and ISTA Nomenclature Committee. More importantly, I have enjoyed working with each one of you and attending the annual meetings.

Dr. John Wiersema, USDA/ARS Nomenclaturalist, has carefully and thoroughly reviewed the scientific names and authors in the AOSA Handbook #25 edited by Dr. Arnold Larsen.

The results of his work have been turned over to Dr. Larsen and have been entered into the Germplasm Information Network (GRIN). These and related data are available electronically to any one who receives a free-of-charge GRIN sign-on protocol. This protocol may be obtained by writing to Jimmie D. Mowder, Bldg. 003, BARC-WEST, Beltsville, MD, 20705, telephone 301-504-5536.

The Maryland State Seed Laboratory has done this and now receives nomenclature and related data from GRIN directly into its Laboratory's computer.

I strongly urge you to appoint Dr. Wiersema to be Chairman of the AOSA Nomenclature Committee. There is no one better qualified for this position.

Dr. John H. Wiersema
USDA/ARS/PSI/SB&ML
Room 202D, Bldg. 265
BARC-EAST
Beltsville, MD 20705-2350

Charles R. Gunn, Chairman

NOMINATION COMMITTEE

During the summer of 1991, Steve McGuire resigned his position as Vice President of the AOSA. Deborah Meyer was installed as Acting Vice President by unanimous vote of the Executive Board on September 9, 1991.

As a result of the vacated Vice President post, members of AOSA were asked to nominate candidates for President, Vice President, and two Executive Board positions.

The results of the nomination balloting were as follows:

President—Four people were nominated. James Lair was the only willing candidate.

Vice President—Nine people were nominated. Deborah Meyer was the only willing candidate.

Executive Board—Twenty people were nominated. Tim Gutormson, Roger Osborn, James Warren, and Kathleen Willey were selected as candidates based on nominations received and willingness to run.

In the event of Deborah Meyer advancing to Vice President, her Executive Board position would become vacant, with one year left to serve. An additional two candidates were selected from the pool of Executive Board nominees for the purpose of filling the vacated position should it become necessary. Mark Haffdahl and Dixie Ogle were selected based on nominations received and willingness to run.

Having two unopposed candidates for both President and Vice President resulted in a situation not easily addressed by the AOSA Constitution. At first it was decided to simply appoint James Lair as President and Deborah Meyer as Vice President by Executive Board decision. AOSA President Wayne Guerke, feeling uncomfortable with this course of action, decided to run the candidate against open write-in slots allowing the AOSA membership the opportunity to vote for their President and Vice President.

As a result, two separate elections were held this year with two separate ballots.

The results of the election for President and Vice President are as follows:

Forty-one labs cast 82 votes. The winners are James Lair for President and Deborah Meyer for Vice President.

The results of the election for Executive Board seats are as follows:

Thirty-eight labs cast 112 votes. The winners are: a) Tim Gutormson and James Warren for a three-year Executive Board term, b) Dixie Ogle for a one year alternate Executive Board term.

Richard Kochevar, Chairman

PROGRAM COMMITTEE

This year we had several diversions from our traditional program format, most notably a preconvention activity, "Red Earth 92," rather than a postconvention tour. The SCST business meeting was moved from the traditional Sunday afternoon time slot to Wednesday afternoon, and a joint AOSA/SCST banquet.

I would like to thank those who served on the program committee for the Joint AOSA/SCST meeting in Oklahoma City, Oklahoma: Ms. Guin Jenanyan as SCST Co-Chair, Dr. Dennis Tekrony for coordinating the student research paper competition and technical paper presentations; Ms. Betsy Randall-Schadel for organizing the AOSA Symposium on Laboratory Safety; and Mr. Travis Hadwerker for organizing the SCST Symposium on Agriculture Diversity.

Lastly, I thank our gracious hosts, especially Roger Osborn, Jan Skinner and the Oklahoma State Seed Laboratory staff, and Dr. Ed Legrand, Val Oyster and the Oklahoma Crop Improvement Association for all their efforts in making our meeting a success.

Deborah Meyer, Chairwoman

RESOLUTIONS COMMITTEE

WHEREAS: The Federal seed Act since 1939 has served in partnership with state seed laws in enforcement of truthful labeling of seeds resulting in incalculable benefit to farmers, seedsmen, and all agricultural interests of this nation; and

WHEREAS: Continuation of funding for the Federal Seed Act is in question for the FY94 USDA budget; and

WHEREAS: The loss of funding for the Federal Seed Act would be of serious consequence in the efficient and orderly marketing of seeds in this country, and the United States would lose the only agency that can speak in international seed trade and would lose its national representation to the International Seed Testing Association; and

WHEREAS: The United States would lose its central clearing house for resolving disagreements about misrepresentation and substandard quality of seeds and would lose the national coordinator for the labeling of the genetic identification of seeds; and

WHEREAS: The withdrawal of funding for the Federal Seed Act would result in the loss of a laboratory which provides a significant amount of teaching

and training, and performs important mediation functions in interstate disputes by its application of the Federal Seed Act;

THEREFORE be it Resolved, That the Association of Official Seed Analysts, meeting in Oklahoma City, Oklahoma, June 14–18, 1992, hereby affirms its support for the retention of funding for the Federal Seed Act and all programs administered under the Act.

Copy to:

USDA —Edward Madigan, U.S. Secretary of Agriculture
USDA —Jo Ann R. Smith, Assistant Secretary of Agriculture
USDA —Dan Haley, Agricultural Marketing Service
AASCO —Larry W. Nees
AOSCA —W. K. Robertson
ASTA —David Lambert
SCST —Quentin Schultz
NASDA —Robert Amato
Honorable Robert C. Byrd, U.S. Senate
Honorable Jamie L. Whitten, U.S. House of Representatives

WHEREAS: The Seedling Evaluation Committee chaired by Doug Ashton has produced a Seedling Evaluation Handbook which replaces Appendix I, Seedling Descriptions, Rules for Testing Seeds and the handbook consists of very precise seedling description and high quality representative illustrations; and

WHEREAS: The project involved considerable rules review and development, plus liaison with affiliate organizations and the seed trade to update seedling descriptions to make them more precise and accurate; and

WHEREAS: Doug Ashton provided excellent leadership and perseverance to see the project through and the following committee members gave significant contributions as indicated: Professor Leroy Everson, the first Chairman of the Committee, who offered leadership throughout the development of the handbook, Beverly Jackson and John Scott who did much work in the early stages but who retired from seed testing before completion; Jeff Ruprecht and Coralie Wilson who were on the committee from the beginning and helped to ensure the work did not drift off track; Susan Maxon whose eye for detail saved the final product from many errors and emissions; and Dr. Wayne Guerke, Bob Karrfalt, Terry Turner, Ellen Chirco, Barbara Atkins, Paul Peterson, Sandy Ednie, Oscar Hall, and Harry Smith, all of whom made significant contributions at various stages; and

WHEREAS: The excellent drawings were prepared by Susan Laurie-Bourque, a scientific illustrator from Hull, Quebec, who showed remarkable patience in dealing with the many detailed and neverending alterations to the drawing;

THEREFORE BE IT RESOLVED, That the Association of Official Seed Analysts meeting in Oklahoma City, June 14–18, 1992, hereby recognizes

the significant achievements of Doug Ashton and all involved with the development of the Seedling Evaluation Handbook and expresses appreciation for their contributions.

WHEREAS: The 82nd Annual Meeting of the Association of Official Seed Analysts was held June 14–18, 1992, in the Waterford Hotel at Oklahoma City, Oklahoma; and

WHEREAS: The meeting was highly productive in terms of constructive committee work, Executive Board deliberations, seed testing equipment and supply displays, presentation of research papers and other professional activities with seed quality evaluation; and

WHEREAS: The social events of banquets, entertainment, tours and talks were very well planned, informative, interesting, and greatly appreciated by all in attendance; and

WHEREAS: Leslie Sinning and her helpers made a significant contribution to AOSA research funds by designing and selling commemorative t-shirts;

THEREFORE BE IT RESOLVED, That the members of the Association of Official Seed Analysts extends its gratitude to the following in recognition of their contribution to the success of this meeting.

PROGRAM COMMITTEE:

Deborah Meyer, AOSA Co-Chairperson
Guin Jenanyan, SCST Co-Chairperson

LOCAL ARRANGEMENTS AND REGISTRATION:

Jan Skinner	Margaret Phillips
Val Oyster	Janice Dobyns
Ellen Oyster	Sue Cannon
Dr. F.E. LeGrand	Linda Reed
Roger Osburn	Karen Rogers-Smellie
Wade Krivanek	Blaine Smellie
Ernest Sallee	Don Blair
Ruby Ritter	Pat Telinde
Dorothy Copeland	Tonda Ames

CONTRIBUTORS:

Oklahoma Crop Improvement Association	Hobart Seed Company
Oklahoma Foundation Seed Stocks	Pierson Seed Farm
Oklahoma Peanut Commission	Generation Five
Oklahoma Wheat Commission	Dover Seed Company
Oklahoma State Seed Lab	Birdsong Peanut Company
Agricultural Laboratory Services, USDA	Southwest Seed And Delinting
Local 344, Plumbers and Pipefitters Union	Terryland Farms
Gay Seed, Inc.	Oklahoma Seed Company
	Mr. Jess Lam
	Mr. Mike Melot
	Farmers Grain and Cotton
	Oklahoma City Convention Bureau

South Oklahoma City Chamber of
Commerce
Bama Pie Ltd.
Clements Food Company
Shawnee Milling Company
Rainbo Baking Company
Anchor Paper Company
Stultz Scientific Engineering
Agway, Inc.
Convion
Hoffman Manufacturing
Isolab, Inc.

Spear Envelope Company
The Waterford Hotel
Equity Bank, OKC
Carol Jordan of Territorial Tours
Refrigeration Engineering-
Manufacturers of Pfeiffer Seed
Germinators
Phillip Bread and the staff of Red
Earth, Inc.
Sheplers Western Wear
Tener's Western Outfitters
Clint Williams Peanut Company

Wayne R. Guerke, Chairman

SEEDLING EVALUATION COMMITTEE

At the time of this writing, the Seedling Evaluation handbook is nearing the end of the printing process. All text and drawings had been submitted as Rules proposals and accepted by the AOSA membership in 1989 and 1991, and so work on the handbook over the past year has consisted only of cleaning up the manuscript in preparation for printing.

Three quotations were received for the printing: Tyrell Press, Ottawa (\$7430); Love Printing, Ottawa (\$6650); and E & S Graphics, Ithaca, Michigan (\$6600). These quotes were approximations for the printing of 2000 copies and did not include the binders or shipping charges. The contract was given to Love Printing. The final cost of printing is not yet known.

The binding for the handbook was discussed by the Chairman and the Executive, and it was decided to use generic 8½ x 11 3-ring binder, with plastic cover and spine pockets to hold title inserts. This decision was made primarily for economic reasons since the cost of production and storage of the binders used for the other handbooks is high. The handbook has not been copywrited—this must be discussed by the Executive and action taken if deemed appropriate.

There is one known error in the handbook—castorbean (*Ricinus communis*) is not included in the descriptions, although it is listed in the Rules. Early in the development of the handbook, the Committee decided to remove this as a major description because we felt it was minor in terms of agronomic importance (this action was presented at the 1987 open Committee meeting in Sacramento, with no objection being heard). The family (*Euphorbiaceae*) should have been moved into the "miscellaneous" section, but was not. Insertion into the miscellaneous section will have to be presented as a Rules change proposal in the future.

I wish to thank the following Committee members: Prof. Leroy Everson, the first Chairman of the Committee, who offered leadership throughout the development of the handbook; Beverly Jackson and John Scott who did much of the work in the early stages but who retired from seed testing before completion; Jeff Ruprecht and Coralie Wilson who were on

the Committee from the beginning and helped to ensure the work did not drift off track; Susan Maxon whose eye for detail saved the final product from many errors and omissions; and Dr. Wayne Guerke, Bob Karrfalt, Terry Turner, Ellen Chirco, Barbara Atkins, Paul Peterson, Sandy Ednie, Oscar Hall, and Harry Smith, all of whom made significant contributions at various stages. The excellent drawings were prepared by Susan Laurie-Bourque, a scientific illustrator from Hull, Quebec. Susan showed remarkable patience in dealing with the many, many, seemingly minor and neverending alterations to the drawings.

As the Committee's mandate to produce a seedling evaluation handbook has been completed, it is my recommendation that the Committee be dissolved. This is not to say that the handbook is finished—on the contrary, it has just started. Seed analysts must continue to question the descriptions and develop data in support of changes which will improve the Handbook and ultimately bring more uniformity to seed testing.

Doug Ashton, Chairman

STATISTICS SUBCOMMITTEE

Work on the 3-year agenda laid out for this subcommittee at the 1991 Annual Meeting has been done as individual efforts rather than as an organized committee effort. However, the groundwork is being laid for meeting all 3 objectives which are:

1. Work with the Referee Committee and the Rules Committee to develop a protocol for adding new or revised testing methods or species to the Rules for Testing Seeds.
2. Work with the Referee Committee to develop and publish procedures for analysis, interpretation, presentation, and permanent recording of AOSA and SCST referee test results.
3. Develop recommendations for official tolerances for seed quality tests other than purity and germination.

A model for evaluating proposed test methods proposed by A.B. Ednie will be considered by this committee. The model uses principles used for method validation in laboratories concerned with feed, fertilizer, pesticide, and food analysis. After adaptations have been made to accommodate those problems that appear to be more important to seed analysts than to analytical chemists (such as working with percentage data), we will be well on the way towards meeting objective 1.

Advances have been made on meeting objective 2. Analytical work was done in 1992 on 3 different referee tests—sorghum, sweetcorn, and ryegrass. A recommended procedure is evolving for analysis and recording of referee test results. A description of a recommended procedure for quantifying within-test variation (rep to rep) and between-lab variation (lab to lab) will be included in AOSA Referee Test Guidelines that are being developed by that committee. Other statistics to be described will be: 1) normal scores to analyze the performance of a laboratory in referee tests over a series of years or in a number of referee tests in the same year, and 2) an overall statistic (F or h—final AOSA/SCST

designation not decided) to put between-laboratory variations of a referee test into a single value. F or h values so calculated can be used for comparing overall uniformity of referee tests, and a database of F or h values should be useful when judging the validity of proposed Rule changes.

A paper dealing with the measurement of variability in several different quality tests (standard germination, accelerated aging, cold test, and speed of germination) will be presented at the 1992 AOSA/SCST meeting. Information of the type to be discussed is required to meet objective 3.

Dan Niffenegger, Chairman

GRADUATE STUDENT PAPER AWARDS

The second graduate student paper competition was held at the annual AOSA/SCST meeting in Oklahoma City. Three judges (N. Viverette, SCST; L. Wiesner and J. Ferguson, AOSA) evaluated the papers and selected the following students for top awards:

First Place (\$100)

Eric Fabrizius, University of Kentucky

"Relationship of Vigor Tests and Vigor Indices to Soybean Field Emergence"

Second Place (\$50)

Adam Puteh, University of Kentucky

"Effect of Cultivars and Seed Maturation on Cotyledon Necrosis and Seed Quality in Soybean"

Third Place (Tie — \$25 each)

Margaret Reedy, Iowa State University

"Isozyme Allele Frequency Changes During Maize Germplasm Regeneration"

Sabry Elias, Michigan State University

"Evaluation of Vigor Tests for Canola"

Dennis TeKrony, Chairman

PRESIDENTIAL ADDRESS

Wayne R. Guerke

June 15, 1992

"Relationships"

Hi, ya' all! I'm enjoying our AOSA/SCST meeting here in Oklahoma City. While here I'm also trying to communicate with the natives by talking like an Okie. Do you notice how friendly they are? And how they attach "yall" to every other sentence?

I really enjoy visiting different parts of the U.S. and seeing the differences. My first job was in the Cajun country of south Louisiana. In addition to having chapped lips from all the spicy cajun-style food, I had trouble talking

the language which appeared to be a mixture of French, English, and a little pigeon thrown in for good measure. This is truly one of the subcultures that makes up our great country. I guess I didn't dislike it too much since I gained about 20 lbs. while there. I came away particularly impressed with the richness of their life-style and how it revolved around the family.

A few jobs later I was once again in trouble with the locals when I moved to Georgia. As soon as I opened my mouth they knew I was from north of Atlanta. They thoughtfully gave me a dictionary on how to speak southern to help me communicate better. Let me read a few definitions to you.

Carry: To convey from one place to another, usually by automobile. "Can you carry me down to the store in yo' car?"

Fixin: Preparing to. "Ah'm fixin to dig me some worms and go fishin!"

Mash: To press, as in the case of an elevator button. "Want me to mash yo' floor for you, Ma'am?"

Once I overcame these hurdles of communications, I learned to appreciate the Southern charm, hospitality and industry of the people.

Whenever we interact with others, we are in a "relationship." This is a buzz-word in these days of high divorce rates and many people trying to find themselves by going to counseling. These days many couples think that a working relationship means they both have jobs. The word relationship actually implies dynamic team work and communication.

Let me tell you a story about a sea captain and his engine room chief. One day they got into an argument that they could each perform the other's job just as well. To settle the argument, they agreed on trial basis to exchange duties, so the captain went down into the engine room and the chief went up to the bridge of the ship. After a while, the captain came running out of the engine room all covered with sweat, oil and grease, exclaiming, "I can't make her go!" The chief yelled down from the bridge, "Don't worry, we've run ground anyway!" This illustrates how everyone has their own expertise in a relationship.

I have had the privilege to be the first AOSA president with a two-year term of office. It has been a great experience to witness the dynamics of our organization, the teamwork of the various committees and the communication of the officers and committee chairs. Not only have I seen this dynamic relationship within AOSA, but it has developed between AOSA and our affiliate organizations. Another buzz-word is "harmonize," and a lot of harmonizing has been going on as we resolve differences, eliminate trade barriers and come closer together as our world gets smaller.

Last year in my address, I spoke about where we've been and where we are going as an organization. I think it is valuable to briefly glance at our progress once again. According to our constitution our objective is to improve seed testing and make it useful to the industry and society. We have developed our Rules for Testing Seed based on research over many decades. During this period we explored developing areas of seed technology, we fine tuned methods of evaluating seed quality and we

published our seed testing guidelines and recommendations in many publications and handbooks. The 1980s were a significant era for our association in that we recognized the individual and the need to standardize the level of training and expertise, AOSA developed the certification of analyst program, teaching and training workshops and symposium programs at annual meetings. By developing the individuals who run our laboratories we improve and standardize our testing further. Informed individuals are better able to make laboratory decisions and interpret findings.

More recently, our communication and representation has expanded outwardly. The committee of Affiliates has developed important liaison with other seed related organizations and the industry. Our important publications such as *The Rules for Testing Seed*, *The Seed Vigor Testing Handbook*, and *The Cultivar Testing Handbook* have helped establish standards within the industry. Great progress has also been made between AOSA and ISTA to harmonize differences in our respective seed testing rules and philosophies.

All this progress has to do with our dynamic relationship with each other, our affiliates and the industry.

As I leave office, I would like to recommend attention to the following areas:

- Continue work to train and inform our people. I am excited about the developing manuscript for an AOSA teaching and training manual being developed by Rodger Danielson, Miller McDonald and Tim Gustormson.
- Continue to harmonize with our affiliate organizations and the industry. The Harmonizing Committee should become incorporated with our Standardization Committee to make this a continuing process.
- Continue to work toward assuring standardized seed testing. A quality assurance program, parallel to what the chemists have, should be explored.
- Continue to emphasize good communication in all areas. Our office of Secretary-Treasurer needs a stable address and financial assistance to maintain its efficiency as our organization grows and becomes more complex.

Well, as an old Okie would say, "I want to thank y'all for hearing me out."