



The Seed Technologist Newsletter



A newsletter for members of AOSA-SCST

Volume 92 No. 3
November, 2025

2024-2025 Proficiency
Test Results

Annual Meeting
Photos

Merger Status Update

Canola Purity Weight
Recommendations

Abnormal Pisum sp.
Seedling Evaluation



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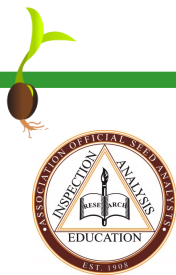


The Seed Technologist Newsletter

A newsletter for
The Association of Official Seed Analysts
and
The Society of Commercial Seed Technologists

Volume 92, Issue 3
November, 2025

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Newsletter Submission Guidelines

Articles should be typed, pertaining to some aspect of seed testing or other items of interest to the AOSA and SCST membership. These may include, but are not limited to:

Ongoing research

Committee and Working Group activity

Updates on the financial state of the organizations

Distinguished member profiles

Profiles of new members to the organizations

Research paper abstracts

Results of research, referees, and validation studies

Upcoming changes to the AOSA Rules

Upcoming changes to the By-Laws of the organizations

Survey study results

Information from other seed-trade organizations

Regional updates to state seed laws or RUSSL

Information on upcoming workshops or other opportunities for training

Book and resource reviews

Impressions from the Annual Meeting

Formatting:

Please include images as **separate** files, with credit to the photographer if different than the author. All images used will be credited.

For specific formatting within a document, please do not insert images, but leave a placeholder so that the editorial staff can include appropriate images, graphics, and tables within articles.

Please do not submit PDFs of articles.

Citations:

Cite image sources and references used in APA7 style.

Cite any additional sources used to compose the article, including co-authors so that they may be credited.

Author's name and contact information to be included in our contributor's page.

Publications must be in accordance with the Anti-trust policy of the AOSA- SCST.



Calendar of Events

December

[ASTA's Field Crop Seed Convention](#)

Orlando, FL

December 9—12, 2025

[AOSCA Virtual Session: Inspector Credentialing Certification](#)

Virtual, AOSCA.org

December 17, 2025

January

IPSA Annual Conference

Indianapolis, IN

January 12-15, 2026

ISTA Workshop on Quality Assurance and ISTA Accreditation

Palmerston, New Zealand

January 20—23, 2026

Southern Seed Association—National Native Seed Conference

Charleston, SC

[Virtual](#)

January 23-26, 2026

February

Genetic Technology Superworkshop

Ames, IA

February 2—6, 2026

Pacific Seed Association

Honolulu, HI

February 8-10, 2025

Vegetable and Flower Seed Conference

San Diego, CA

February 15—20

March

ISTA Workshop on Seed Sampling and Quality Assurance in Seed Sampling

Budapest, Hungary

March 17—20

AFSTA Congress 2026

Cape Town, South Africa

March 23-25, 2026

Newsletter Submission Deadline

Please submit articles to the Communications & Publications Committee Chairs

March 31, 2024



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AOSA SCST 2026 Annual Meeting

Rochester, New York

June 5-11, 2026

Holiday Inn Rochester, NY—Downtown

70 State St. Rochester, NY 14614

Transportation:

Complimentary Shuttle within 3 miles of the hotel runs from 4:00am to 11:30pm to locations in downtown Rochester.

Complimentary hotel shuttle for hotel guests to and from the Airport.

Complimentary hotel shuttle to Amtrak Station.

Contact Information:

<https://rochesterdowntownhotel.com/contact/>
(585) 355-4811

See you in Rochester! June 2026

Check for updates at: <https://analyzeseeds.com/annual-meetings/>



ASTA Takes on Crop Biotechnology

Kaitlin Crawford, Director, Marketing & Communications, ASTA

Earlier this year, the Biotechnology Innovation Organization (BIO) dissolved its Agriculture and Environment Section to focus on human health and biopharma.

After extensive discussions, it was unanimously agreed that ASTA will serve as the preeminent voice on all matters plant breeding, including crop biotechnology, at the state, federal, and international levels to ensure that the critical advocacy and regulatory work in agricultural biotechnology continues.

ASTA's mission is to be the leading voice of action for the development, marketing, and movement of seed, associated products, and services throughout the world. Integration of the crop biotechnology focus area to ASTA's mission will strengthen that mission.

This important topic, among others, will be discussed at ASTA's upcoming 2025 [Field Crop Seed Convention \(FCSC\)](#), December 9-12 in Orlando, FL. Bringing together over 1,000 individuals from more than 27 countries annually, FCSC continues to be the premier seed industry networking event in the United States, offering prime networking opportunities, a centrally located trade show exhibit floor, and educational and policy content sessions tailored for industry professionals.

This year's program includes two general sessions featuring renowned ag economist Dan Basse, returning with his standing room-only global ag economic forecast and Farm Credit Council's Vice President, Government Affairs Skylar Sowder, who will convene a row crop farmer panel to talk about their first-hand challenges in the field, and the opportunities that lie ahead. Top leaders from the administration have also been invited, including from the U.S. Department of Agriculture and Environmental Protection Agency. To learn more about the event, visit betterseed.org/fcsc25.



AOSCA Fall Update

Sarah Wilbanks, Ph.D. AOSCA Chief Executive Officer

Greetings AOSA-SCST,

Can you believe that it's almost the end of 2025? It seems each year flies by in record time.

For the AOSA/SCST Fall Newsletter, I wanted to provide you an update of some of AOSCA's strategic priorities for 2025 and into 2026.

Launch of the Inspector Credentialing Program

AOSCA is pleased to announce the official launch of the AOSCA Inspector Credentialing Program, a major milestone in strengthening consistency, professionalism, and technical



excellence across seed certification agencies. This new program provides a standardized pathway for training, evaluating, and recognizing inspectors who play a critical role in ensuring the integrity of certified seed. Participating agencies can now enroll inspectors in a structured curriculum that includes core competencies, applied field knowledge, and ongoing professional development. Each inspector will participate in a 6-month virtual training, followed by crop specific in-person trainings held in 2026 and beyond. This initiative reflects AOSCA's commitment to supporting member agencies and elevating the quality and reliability of certification services across all regions.

AOSCA Member Support and Engagement

AOSCA has continued to offer a wide range of activities designed to support and strengthen its member agencies. We like for our agencies to think of AOSCA as its "HUB" of information. Over the past year, members have benefited from collaborative working groups, technical committee meetings, and professional development sessions focused on advancing seed certification standards. We even offered an AOSCA led design workshop this Fall!

AOSCA has also continued to provide training opportunities, including webinars and workshops, to help agencies stay current with emerging technologies, regulatory updates, and best practices. If any AOSA-SCST member would like to participate in any online session we offer, please reach out. We value the collaboration opportunities. This summer we started our second cohort of the AOSCA Academy, which is geared to those new to seed certification. We feel there is great value investing in those in our industry, and want to do our part in keeping these professionals in our field. At the end of this cohort, we will have graduated over 50 seed professionals from the Academy.

Additionally, the AOSCA website has undergone several updates, and most recently has launched a Member



Forum, where members can exchange ideas, issues, or technical questions or knowledge for all members to benefit from.

Lastly, AOSCA values its relationship with AOSA-SCST and knows without all of you, seed certification would not be possible. We wish you all a wonderful holiday season.

Sarah Wilbanks, Ph.D.

AOSCA Chief Executive Officer



Seed Analyst Committee Holds Annual Meeting

Tammy Stark, Illinois Seed Trade Analysts Committee Member

The Illinois Seed Trade Association's Seed Analyst Committee held its annual meeting on August 13th, with 30 participants from eleven laboratories across the Midwest gathering at the Bayer QA Lab in Waterman, IL. The meeting focused on critical issues and developments in the seed industry, providing a platform for professionals to exchange insights and discuss future directions.

One of the primary topics of discussion was the review of results from the annual referee tests on corn, soybeans, and sweetcorn. We had 21 labs, 82 participants, from 9 states participate in the 2025 referee. Also, participants engaged in a discussion about revising the By-Laws for the committee and shared some tips for those studying to take the AOSA/SCST exams.

In addition attendees participated in presentations on “How to trouble shoot problem areas within the lab”, hands-on pepper and spinach germinations, and seed identification techniques.

The meeting concluded with a tour of the Bayer QA Lab, giving participants a firsthand look at the facility's operations. The Illinois Seed Trade Association extended special thanks to the Bayer staff for their hospitality and hosting this important event.

For more information on how to participate in future events, visit analyze-seeds.com.

Tammy Stark - IL Seed Trade Seed Analysts Committee Chair



Analysts enjoyed the networking and camaraderie at the seed analyst meeting in Waterman, IL.

Photo credit: Tammy Stark, Illinois Seed Trade Committee



Annual Meeting Recap, Missoula 2025

In some ways this year's annual meeting in Missoula Montana felt like a return to form after navigating rough waters during the lost year of the pandemic, and being relegated to virtual meetings for a year, and some hotel booking challenges in Illinois. However, we made it through and have come out the other side stronger and ready to grow.

There were three workshops held prior to the Opening Session, covering Seedling Evaluation, Tetrazolium, and Vigor Testing. These were well attended and provided useful information for those who participated.

The planning committee in Montana did an excellent job coordinating with local researchers and speakers, and we were so fortunate to have so many guest speakers at the Opening Session. Sergio Pasquini, chair of the ISTA Tetrazolium Committee, Dr. Ruoqing Wang, representing ISMA, Sarah Foster representing Seeds Canada, and Dr. Sarah Wilbanks representing AOSCA provided updates on their organizations. Capitalizing on the many kinds of research conducted on wild species in Montana, the planning committee also solicited four research presentations. Many thanks to Michael Butts, Nursery Program Manager at the Forestry Assistance Bureau; Cara Nelson, University of Montana; Marirose Kuhlman, Habitat Coordinator, Missoula County Department of Ecology; and Akasha Faist, University of Montana for sharing your knowledge and passion with our organizations. These talks were a big hit with the membership.

Members also had the option to visit Alberton Orchards, which hosts a variety of activities for those wanting to get outdoors and enjoy some of the stunning Montana scenery up close. One highlight was the chance to see American bison with their calves, and to give treats to the herd of Highland cows.



Marirose Kuhlman



Michael Butts



Akasha Faist



Cara Nelson



This year was also a trial run for some new tech tools. As a trial run, committee chairs were given a QR code to add to their slides for meeting attendees to sign in virtually. Although there were a few hiccups, it was useful to committee chairs to receive their attendee lists as an excel file rather than having to decipher multiple pages of hand-written sign-in sheets. During Long Range Planning, President Melissa Phillips introduced an online collaboration tool allowing members in the room and those participating virtually to vote on options and offer real-time feedback via Menti. This was also well received, and we will try to implement similar options in the future to encourage participation for all in attendance, both virtually and in person.



Quinn Gillespie, Morgan Webb, and Trey Johnson enjoying the sun at Alberton Orchards.





Merger Update since the Annual Meeting

AOSA/SCST Leadership

Discussion of consolidating, merging, or operating under a single umbrella organization has been a main feature of our Long-Range Planning sessions for going on two decades at this point and each attempt has brought attention to new, significant, issues that needed to be addressed. Committees have been consolidated with chairs representing both organizations, our exams have been consolidated with matching requirements, voting procedures have been updated, and requirements for proficiency testing have been implemented across both organizations.

During the Business Meetings of AOSA and SCST in Missoula the memberships of both organizations voted to proceed with the process of merging the two organizations. While this was **not** the final vote on whether the two organizations will become one it still represents a momentous step in our history. The past two years have been filled with concentrated work from dedicated members from both organizations, working alongside other seed industry organizations and USDA to develop new Bylaws and processes for what AOSA-SCST may look like in the future.

The proposed new Bylaws have been sent out after the meeting to those who requested and feedback from the membership has been very useful. Many thanks to Tim Gutormsen, Ruojing Wang, and Johnny Zook in particular who took the time to examine the proposed Bylaws with a fine-toothed comb. The intent is for our new Bylaws to remain more consistent over time and to move away from the process of making changes to them every year. However, this does not mean that what is written is carved in stone. When changes are deemed necessary by the membership and leadership there will still be procedures in place to propose and vote on Bylaws changes in the future.

Based on advice from our legal counsel, AOSA is in the process of engaging a separate legal counsel to represent them while drafting the articles of merge. SCST will maintain our relationship with our current representation as a separate entity. This is being done to ensure that there is no conflict of interest during this process.

A working group has been established to review the needs of the new organization and to draft an RFP for the position of Executive Director of AOSA-SCST.

What membership can expect when the articles of merge are completed:

Prior to the articles being sent to be reviewed and voted on by the membership, you will receive notification that the vote is coming and to be ready to review the proposed Bylaws and articles of merge, which will outline the next steps to dissolve AOSA, consolidate funds, change the organization name to AOSA-SCST, and establish the new Board of Directors, President, and Vice President.

Members will have **30 days** to review the articles of merge and Bylaws. The articles of merge are a legal document and are not editable by organization leadership.

The Bylaws sent out with the articles of merge will be in their current final state. If members find areas that



need minor edits they are advised to document needed edits to be submitted as a Bylaws change proposal. Edits will not be made to the Bylaws once the **30-day** voting period has begun. This is done to ensure that all members are voting on the same documents.

It is vital that all voting members of both organizations participate in this vote as it concerns the future of our two organizations. The boards and executive director office will reach out to members who have not yet voted before the end of the **30-day** voting period.

Decisions on the logo for the new organization will take place prior to the merge vote. (See following pages for submitted logos.)

Items to be voted on will include:

To proceed with the merger of AOSA and SCST including the plan for consolidating finances detailed in merger documents.

New Bylaws for the merged organization.

A vote on the new board members. All members will be selecting from both Government lab members and individual members. One member of USDA will remain an ex-officio member of the board.



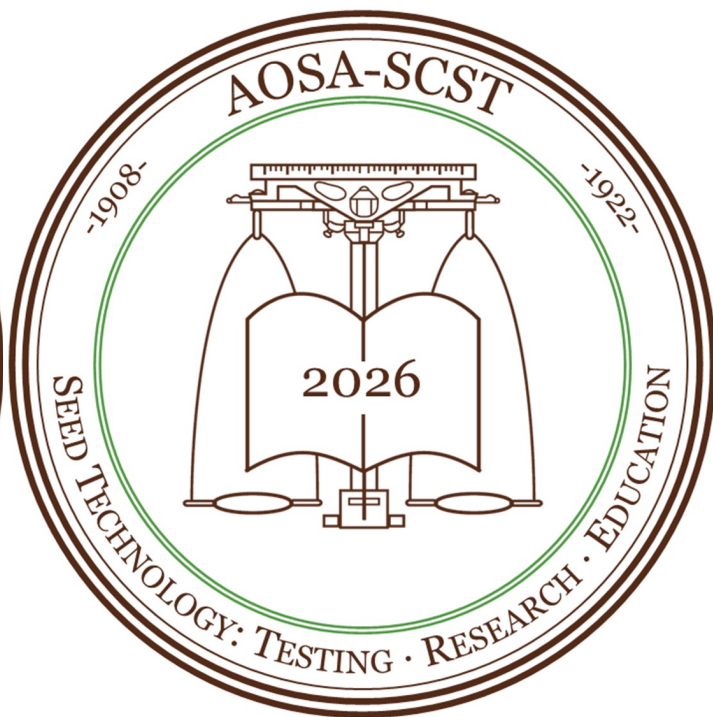
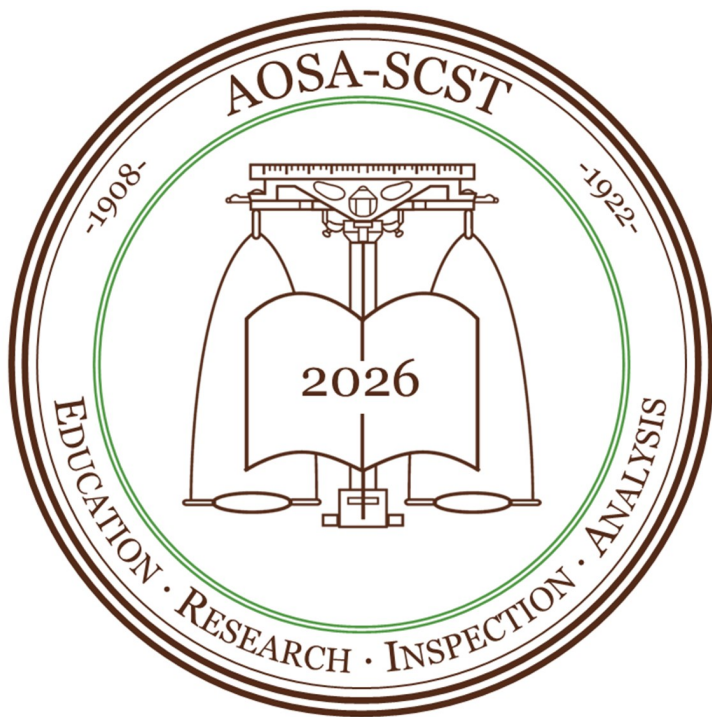
Updated AOSA-SCST Logo Submissions

Some logos have been updated since the Annual Meeting with additional variations. Voting on the new logo will take place later in this year.

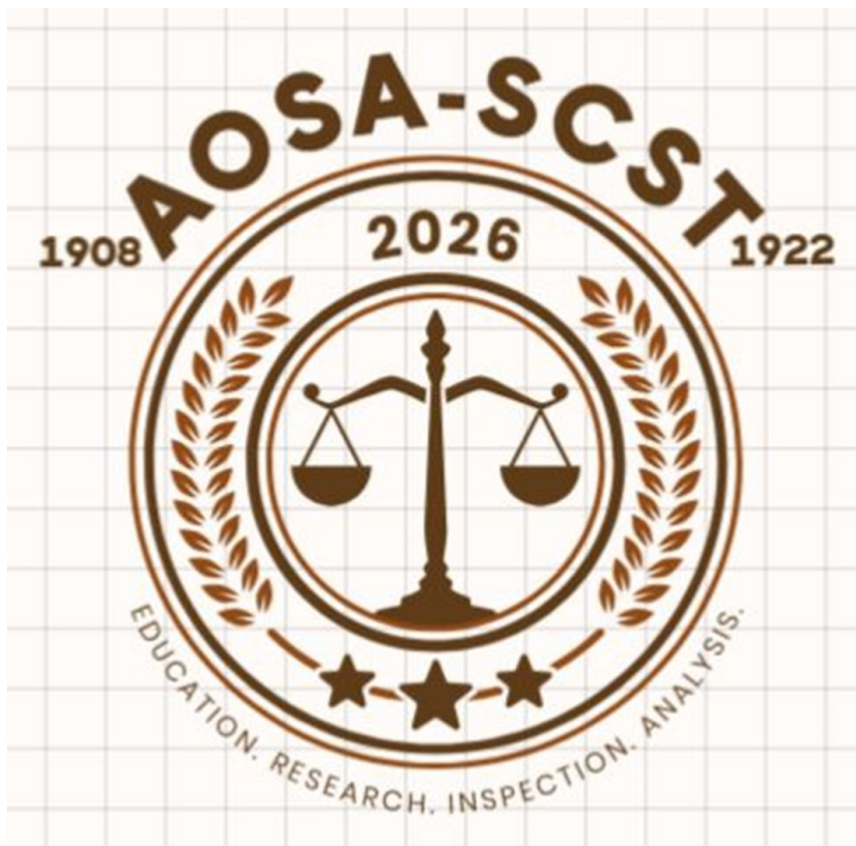




* Date will be updated if selected.







* Watermarks to be removed if selected.





New Registered & Certified Members - Fall 2025

Consolidated Exam Committee

New RSTs

Tiffany Smits (Corteva) – CVT to **RST**

Alyssa Weber (NST Lab) -- CVT to **RST**

Anjelica Scheuermann (Corteva) – CVT to **RST**

Hailey Osburn (Crookhams)– CVT to **RST**

Sharmila Sunwar (Sakata)– CVT to **RST**

New SCST CVTs

Timothy Bower HM Clause) – **CVT**

Cody Harris (NE Crop Improvement)– **CVT**

Riley Blackwell (Nutrien Ag Solutions) – **CVT**

Terrance Fox—Corteva

New AOSA CSA

Lillian Dees—South Carolina, Department of Agriculture

Marquise Beckett—Maryland State Seed Laboratory

New AOSA CSAs—Germination

Kathryn McGinnis—USDA-AMS, Seed Regulatory and Testing Division

Adrian Aycock—USDA-ARS, National Laboratory for Genetic Resources Preservation

Kolter Herkstroeter - USDA-ARS, National Laboratory for Genetic Resources Preservation

Shaimaa Ibrahim—USDA-ARS, National Laboratory for Genetic Resources Preservation

Damion Castellana—Georgia Department of Agriculture, Seed Division

Sarah Hurni—Virginia State Seed Laboratory

Janet Riggle—Louisiana State Seed Testing Laboratory

Carlos Agosto-Alberti—Florida Department of Agriculture & Consumer Services

Denise Poole—North Carolina Department of Agriculture & Consumer Services

Tia Tyler—USDA Forest Service, National Seed Laboratory

Congratulations!

And thank you to everyone who worked so hard to make the online exam possible.



SCST New Registered & Certified Member Profiles

As submitted by new RSTs, RGTs, CVTs, CPTs, CGTs



Dr. Neelima Mareedu, Ph.D. CSA

I joined the Virginia State Seed Laboratory (VDACS) as a Seed Analyst in July 2021 and am currently serving as a Laboratory and Research Specialist II in the same lab.

I hold a Master's and Doctorate in Horticulture (Plant Science) from ANGRAU and the University of Horticultural Sciences, Karnataka, India respectively. Before joining VDACS, I worked for the Andhra Pradesh State Department of Horticulture as a Horticulture Officer for five years and previously served as a Senior Research Fellow in vegetable research at IIHR, Bengaluru, India.

My passion and deep interest in plant sciences have guided my career path and helped me achieve AOSA certification. Outside of work, I'm a proud mother of two boys and enjoy spending time with my family, traveling, and cooking.



Honorary Memberships

Pat Miller, SCST Honorary Member



Photo credit: Seed Today

Pat Miller was hired in January 2007 as the Director of State Affairs for the American Seed Trade Association (ASTA). In this role he coordinated with state and regional seed industry associations to provide input and assistance with legislative, regulatory and grassroots activities. In 2024, Pat became the Senior Director of Special Projects, where he sharpened his focus on specific seed industry issues including treated seed regulations and resources, seed labeling standardization, and much more. Pat retired from ASTA at the end of 2024. He now serves as the Executive Director for the Texas Seed Trade Association. Pat and his wife still live in Texas, along with their children and grandchildren.

On his retirement Pat also contributed an article to Seed Today detailing his journey in the seed industry and what is next for his journey into the Texas Seed Trade Association. His article can be found at:

<https://www.seedtoday.com/article/1070285/thank-you-and-farewell-from-astas-pat-miller>



Hands On Proficiency—Alfalfa Purity and Germ

Submitted by Heidi Arneston, Proficiency Committee Chair

Participation

- 343 Samples sent to participants
- 261 Results submitted

Accreditation:

- Canadian Accredited: 9
- Not Accredited: 81

SCST: 100

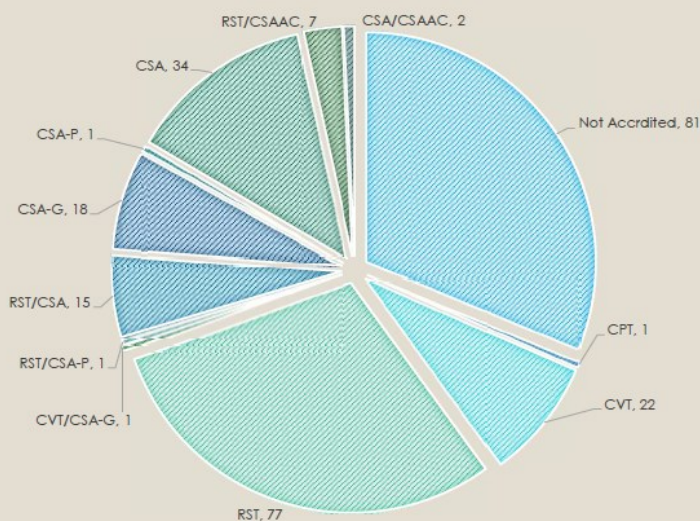
- CPT: 1
- CVT: 22
- RST: 77

AOSA: 54

- CSA-P: 1
- CSA-G: 18
- CSA P&G: 34

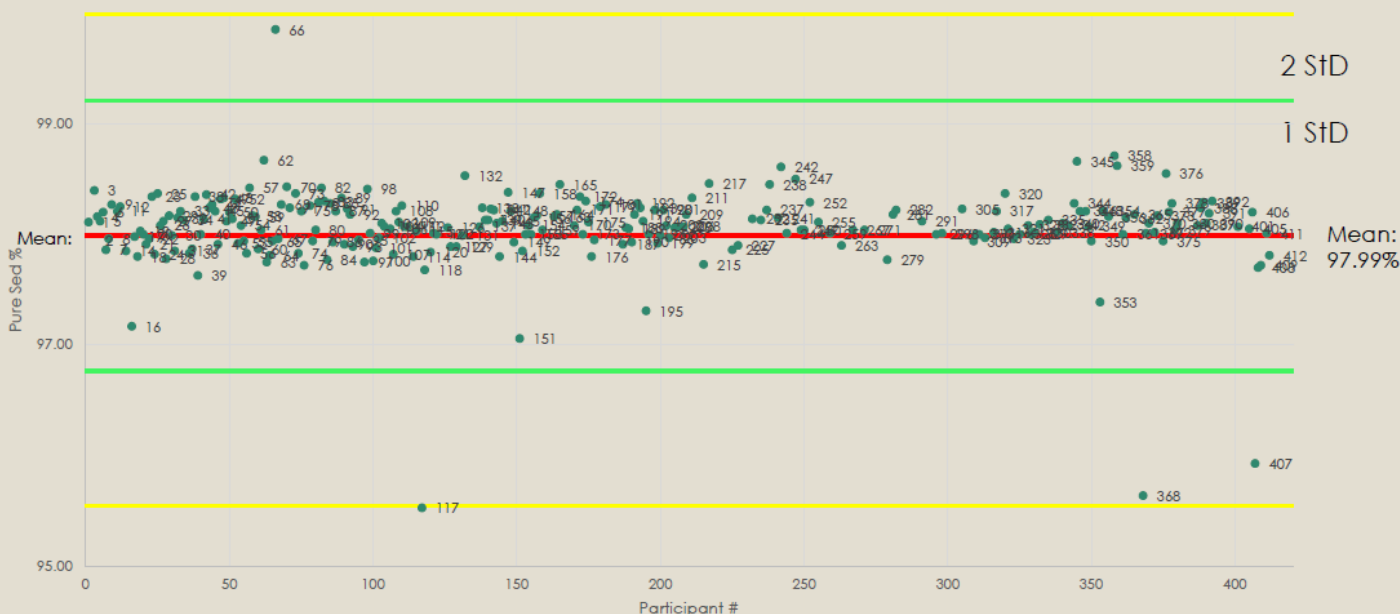
Dual Membership: 17

- CVT/CSA-G: 1
- RST/CSA-P: 1
- RST/CSA P&G: 15



Purity Results

251 within 2 standard deviations
2 outside 2 standard deviations





Purity Mean Results

◦ Pure Seed: 97.99%

◦ Other Crop: 1.61%

Contaminants:

3 Korean Lespedeza, *Kummerowia stipulacea*

3 Timothy, *Phleum pratense*

2 Common Buckwheat, *Fagopyrum esculentum*

1 Sorghum/Broomcorn, *Sorghum bicolor* subsp. *bicolor*

◦ Weed Seed: 0.13%

Contaminants:

2 *Amaranthus* spp.

◦ Inert Matter: 0.23%

Contaminants:

Broken seed, soil, plant material, insect parts, chaff

According to the bylaws of both organizations, "Only pure seed and normal seedlings are taken into consideration for determining out of tolerance." but the mean of all have been provided.

The required minimum working weights for *Medicago sativa* (alfalfa) according to Table 2A are:

Purity: 5g

Noxious: 50g

If the customer asked you to perform an All-States Noxious Weed Seed Test with this purity, would any of the contaminants found be considered Noxious Weed Seeds?

Yes

Noxious Weed(s): *Amaranthus* spp.

Sorghum bicolor subsp. *bicolor*

Phleum pratense is only noxious when performing an UGS test on lawn/turf samples

A word of caution regarding noxious weed seeds. Analysts are advised to refer to the [online version](#) of the All-States Noxious Weed Seed List as it is updated throughout the year. Per USDA, if a genus is included on the All-States Noxious Weed Seed List as Genus spp., all species would be considered noxious. As states make changes to their noxious weed seed lists and sometimes combine them with state noxious weed lists analysts are advised to refer back to the individual state pages for any additional restrictions or guidance about how to report some of these ambiguous noxious weeds. In some cases, it may be preferable to the customer requesting the purity exam to have any noxious weed seeds listed, even if they fall below a state threshold for the sake of transparency or to maintain purity standards if the lot is blended with another lot with a higher level of contamination.



Most misidentified Seeds:

- *Amaranthus* spp. called *Chenopodium* spp.



- *Fagopyrum esculentum* called *Fallopia convolvulus*



Other Contaminating Seeds Found:

- *Trifolium repens*
- *Trifolium nigrescens*
- *Medicago lupulina*
- *Lolium multiflorum*
- *Festuca arundinacea*
- *Galega officinalis*

- Required Minimum working weights:

- Purity: 5g
- Noxious: 50g

Table 2A. Weights for working samples

Pure Seed Unit #	Chaffy (C) or Super Chaffy (SC) ^a	Kind of seed	Minimum weight for purity analysis ^b	Minimum weight for noxious weed seed or bulk examination	Approximate number of seeds per gram ^c	Approximate number of seeds per ounce ^d
			Grams	Grams	Number	Number
2		<i>Medicago sativa</i> L. alfalfa	5	50	500	14,175

- The Purity weight may be considered PART OF noxious weed seed examination, but the TOTAL minimum working weight for the noxious test is still to be 50g.

b. Purity analysis, noxious weed seed examination, bulk examination. –

When a purity analysis is performed, the weight of the purity working sample may be considered **part of** the minimum weight specified for the noxious weed seed examination or bulk examination.

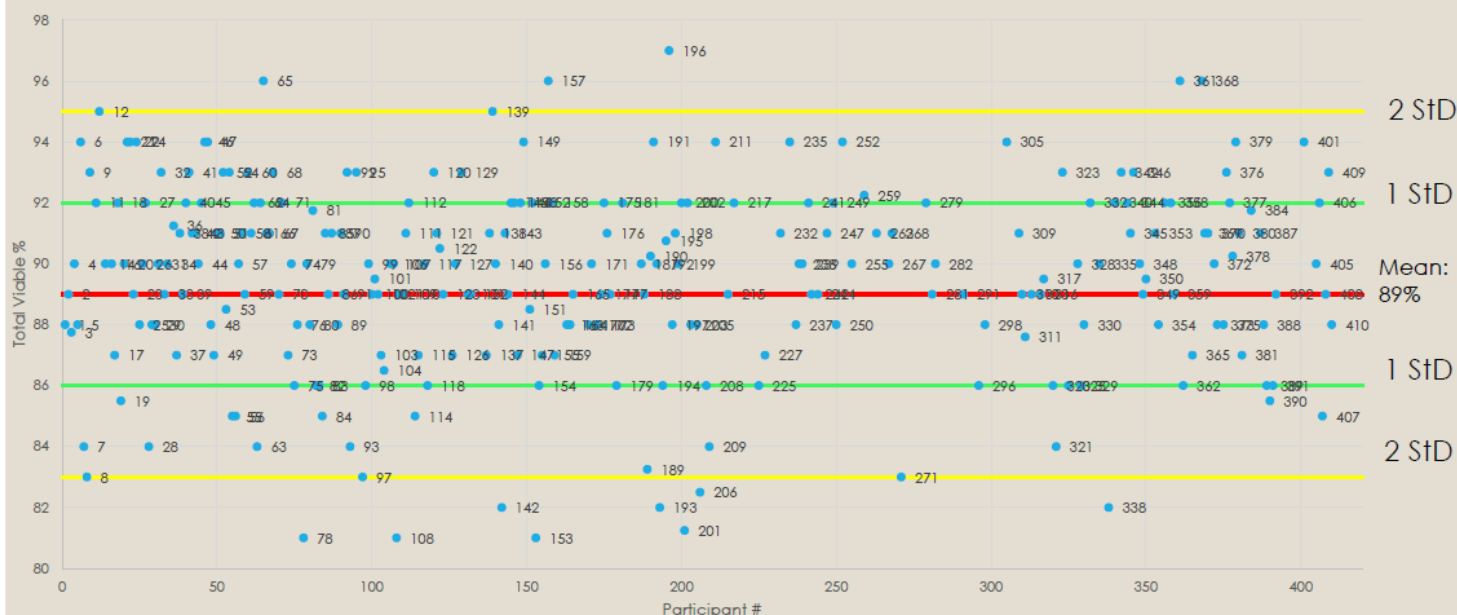


- Purity percentages shall be calculated to 2 decimal places, and if any contaminant is found to be present, but calculates to less than 0.015%, it shall be reported as 0.01% (Vol. 1, Section 3.1 b. (4)).

(4) The percentage of each of the components shall be determined to **two decimal places**. When rounding off the calculated percentages of each component to the second decimal place, round down if the third decimal place is 4 or less and round up if the third decimal place is 5 or more, **except that if any component is determined to be present in any amount calculated to be less than 0.015 percent, then that component shall be reported as 0.01 percent**. If any component is not found in the purity analysis, then that component shall be reported as 0.00 percent.

Germination Results

247 within 2 standard deviations
13 outside 2 standard deviations





Germ Mean Results

Normal: 84%
Abnormal: 4%
Dead: 7%
Hard: 5%
Total Viable: 89%

Testing Methods Used:

Substrata: T, B, PP
Temperature: 20°C, 20-30°C
Days Tested: 6-12

According to the bylaws of both organizations, "Only pure seed and normal seedlings are taken into consideration for determining out of tolerance." but total viable was used for this hard-seeded species, and the mean of all have been provided.

Acceptable substrata for testing alfalfa are (select all that apply):

- a. between blotters
- b. Top of creped cellulose paper without blotter
- c. Pleated filter paper
- d. Paper toweling
- e. Sand
- f. Organic growing media

Comments:

- Mechanical damage, insufficient roots, watery hypocotyls, mold, damaged hypocotyls
- Swollen seeds were extended 2-5 additional days.

Germination components shall be expressed as whole numbers, and the sum of all components shall be 100%. (Vol. 1, Section 6.7)

6.7 Calculation of percentage germination

- a. When a single test is made in accordance with these rules and retesting is not required, calculate the result of the normal seedlings as the average of four 100 seed replicates (sub-replicates of 50 seeds or less must be combined into replicates of 100 seeds by combining the replicates that are closest together in the germinator). The percentage of each germination component of the germination test is determined as follows:

(1) First, round the percentage normal seedlings to the nearest whole number. A fraction of 0.5 or higher is taken to the next whole number (e.g. xx.5 and higher is rounded to xx +1; xx.49 and lower is rounded to xx).

(2) After rounding the percentage normal seedlings to the nearest whole number, sum the integer¹ part of all the remaining germination components (abnormal seedlings, hard, dormant and dead seeds) plus rounded germination percentage. If the sum of all components is 100%, the procedure ends, and these will be the final reported results. If not, proceed to the next step.

(3) For determining percentages of abnormal seedlings, hard seeds, dormant and dead seeds:

- (a) Find the germination component among abnormal seedlings, hard seeds, dormant and dead seeds with the greatest fraction part of xx.50 or higher and round this percentage up to the next whole number, keep this value as a final result.

(b) Add the integer values of the remaining components plus the rounded values as in part (2). If the sum of all the germination components is 100%, the procedure ends.

(c) If the sum of the germination components is less than 100%, of the remaining components round up the one with the greatest fraction of 0.5 or higher, and repeat the process until the total of all the germination components is equal to 100%.

(d) In case of equal fractions, the priority for rounding up is abnormal seedlings, hard seeds, dormant seed and dead seeds.

¹An integer is a number that has no fractional part and no digits after the decimal. For rounding purposes, an integer part of a number refers to the non-fraction part of that number, regardless of the magnitude of the fraction (e.g., 82 is the integer part of 82.00, 82.25, 82.75 and 82.99).

(e) If all germination component values are rounded down and the resulting sum is less than 100%, the percentage normal seedlings is adjusted upwards so that the final sum is 100%.



Reminders:

- Committee Procedures & Participation Requirements can be found:
 - AOSA Bylaws: Article 7 Section 5. Special Committees k. Proficiency Committee: <https://analyzeseeds.com/wp-content/uploads/2021/05/2024-2025-AOSA-Bylaws-updated.pdf>
 - SCST Bylaws: Section 4 Proficiency Testing: https://analyzeseeds.com/wp-content/uploads/2023/12/SCST_Constitution-Bylaws_2023.pdf

SCST

Registered and Certified Conventional Testing Members
- RST, CPT, CVT

Mandatory to participate in all PTs individually

Professional members

Mandatory to participate in a minimum of one written PT - must participate at an individual level

Associate Members

Not required but strongly encouraged to participate. - Great for studying!

AOSA

Mandatory participation at the Laboratory level

Only requires one person within the laboratory to complete the exercise

Numerous laboratories complete at a multiple individual level

It is the responsibility of the AOSA individual member to communicate participation/points to CE Committee.

Leanna Leach - cepoints@scda.sc.gov

If you're using a participant number originally assigned to another person, please reach out to a committee chair ahead of submitting results.



Hands-On Proficiency—Flax Germination

Submitted by Heidi Arneson, Proficiency Committee Chair

Participation

345 Samples sent to participants
260 Results submitted

- Canadian Accredited: 7
- Not Accredited: 70

• SCST: 111

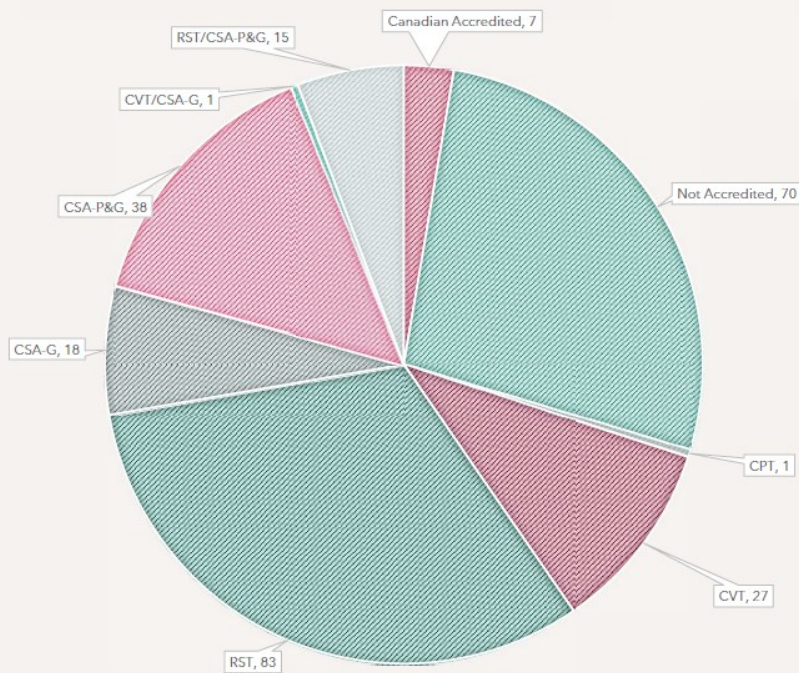
- CPT: 1
- CVT: 27
- RST: 83

• AOSA: 56

- CSA-G: 18
- CSA-P&G: 38

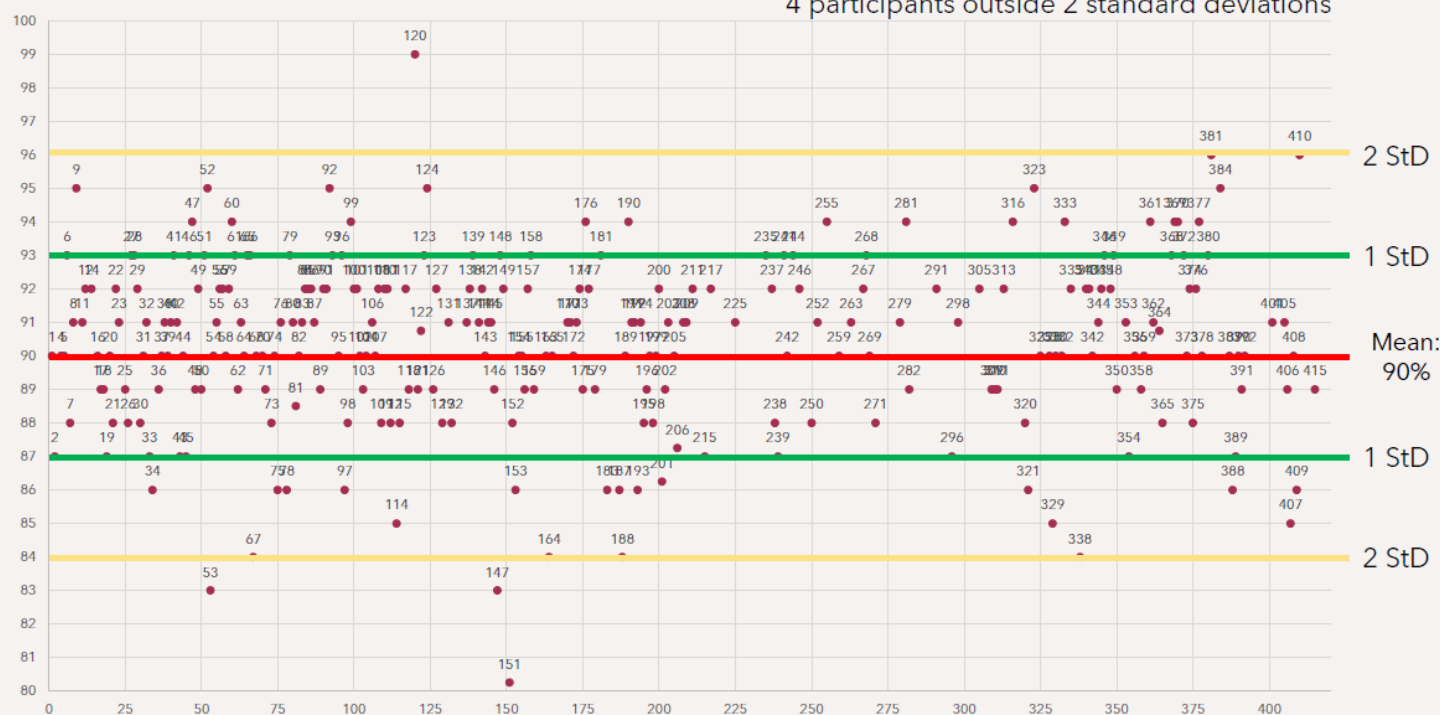
• Dual Membership: 16

- CVT/CSA-G: 1
- RST/CSA-P&G: 15



Germination Results:

216 participants within 1 standard deviation
40 participants within 2 standard deviations
4 participants outside 2 standard deviations





Germination Mean Results:

Testing Methods Used:

Substrata:

Blotter: 75
Towel: 184
Pleated Paper: 1

Temperature:

20°C: 3
25°C: 4
20-30°C: 253

Days Tested:

6 days: 4
7 days: 254
8 days: 1
9 days: 1

*substrata and temperature variations noted that "appropriate" method was not available.

- Normal: 90%
- Abnormal: 4%
- Dead: 6%

• Comments:

insufficient root growth, decayed/damaged cotyledons, missing hypocotyl development, hypocotyl lesions, fungal growth

According to the bylaws of both organizations, "Only pure seed and normal seedlings are taken into consideration for determining out of tolerance", but the mean of all have been provided.

Germination Method Comparison Observations:

- Germination conducted on towels and boxes. Germs were much better on towels than boxes
- I planted this sample both between blotters and in rolled towels as a comparison (we don't test much flax) results were only 1% different but I have reported the higher germ.
 - Planting in rolled towels had a slower germination, (I was able to count the BB sample at 3 days, 4 days for RT) but much easier to count, although the reps showed a wider variation in final count, the result was only 1% lower. RT also has elongated hypocotyls. Some abnormalities were missing roots, or had stunted hypocotyls BB. Would like to try without the top blotter to see if it eliminates that problem. (Rule change? It works for Basil :D)



Germination components shall be expressed as whole numbers, and the sum of all components shall be 100%. (Vol. 1, Section 6.7)

6.7 Calculation of percentage germination

a. When a single test is made in accordance with these rules and retesting is not required, calculate the result of the normal seedlings as the average of four 100 seed replicates (sub-replicates of 50 seeds or less must be combined into replicates of 100 seeds by combining the replicates that are closest together in the germinator). The percentage of each germination component of the germination test is determined as follows:

- (1) First, round the percentage normal seedlings to the nearest whole number. A fraction of 0.5 or higher is taken to the next whole number (e.g. xx.5 and higher is rounded to xx +1; xx.49 and lower is rounded to xx).
- (2) After rounding the percentage normal seedlings to the nearest whole number, sum the integer¹ part of all the remaining germination components (abnormal seedlings, hard, dormant and dead seeds) plus rounded germination percentage. If the sum of all components is 100%, the procedure ends, and these will be the final reported results. If not, proceed to the next step.
- (3) For determining percentages of abnormal seedlings, hard seeds, dormant and dead seeds:
 - (a) Find the germination component among abnormal seedlings, hard seeds, dormant and dead seeds with the greatest fraction part of xx.50 or higher and round this percentage up to the next whole number, keep this value as a final result.
 - (b) Add the integer values of the remaining components plus the rounded values as in part (2). If the sum of all the germination components is 100%, the procedure ends.

(b) Add the integer values of the remaining components plus the rounded values as in part (2). If the sum of all the germination components is 100%, the procedure ends.

(c) If the sum of the germination components is less than 100%, of the remaining components round up the one with the greatest fraction of 0.5 or higher, and repeat the process until the total of all the germination components is equal to 100%.

(d) In case of equal fractions, the priority for rounding up is abnormal seedlings, hard seeds, dormant seed and dead seeds.

¹An integer is a number that has no fractional part and no digits after the decimal. For rounding purposes, an integer part of a number refers to the non-fraction part of that number, regardless of the magnitude of the fraction (e.g., 82 is the integer part of 82.00, 82.25, 82.75 and 82.99).

(e) If all germination component values are rounded down and the resulting sum is less than 100%, the percentage normal seedlings is adjusted upwards so that the final sum is 100%.

Questions (Not Scored):

- What is the recommended sample size of flax to be submitted to the lab for testing?
 - a. 60 grams
 - b. 150 grams
 - c. 500 grams
 - d. 1,000 grams
- 4 participants answered 60 grams.
- 253 participants answered 150 grams.
- 3 participants answered 500 grams.
- 0 participants answered 1,000 grams.

AOSA Rules Volume 1, Section 1.4 a.

1.4 Size of sample

a. The following are recommended minimum weights for samples of seed to be submitted for analysis, test, or examination. The required minimum submitted sample weights must be of sufficient size for the desired testing to be conducted. The required minimum sample weights are stated in AOSA Rules Vol. 1 section 1.4.a.(5-8) and section 2.4.

(1) Sixty (60) grams (approximately 2 ounces) of grass seed not otherwise mentioned, alsike or white clover, or seeds not larger than these.

(2) One hundred fifty (150) grams (approximately 5 ounces) of alfalfa, crimson or red clover, flax, lespedezas, millet, rape, ryegrasses, or seeds of similar size.



Questions (Not Scored):

- According to Table 6A, flax should be tested a temperature of 20-30°C. When alternating temperatures are used in seed testing, the test is to be held at the first temperature for approximately (a)____ hours, and the second temperature for approximately (b)____ hours per day.

- (a). 16
- (b). 8
- 238 participants answered correctly.
- 22 participants switched (a) & (b).

AOSA Rules Volume 1, Section 6.9 c.

c. **Temperature.** — Single numerals in Table 6A indicate constant temperatures. Two numerals separated by a dash indicate an alternation of temperature, **the test to be held at the first temperature for approximately 16 hours and at the second temperature for approximately eight hours per day.** A sharp alternation of temperature, such as obtained by hand-transfer, may be beneficial in breaking dormancy. If the tests are not subjected to alternating temperatures over weekends and holidays, they are to be held at the lower temperature during this time. Variation from the temperature specified in the Rules should not be more than ± 1 °C due to the apparatus. In the case of species of *Trifolium*, *Medicago* and *Vicia faba*, the temperature should not exceed 20 °C.

Questions (Not Scored):

- True or False: The number of first count days is to be counted in addition to the number of final count days given in Table 6A.

- **False**
- 35 participants answered True.
- 225 participants answered False.

First count days are INCLUDED in the final count days listed in Table 6A, not counted in ADDITION to that number.

Ex. Flax = 3-day 1st count & 7-day final count

1st count = Day 3; Final = Day 7 (from planting)

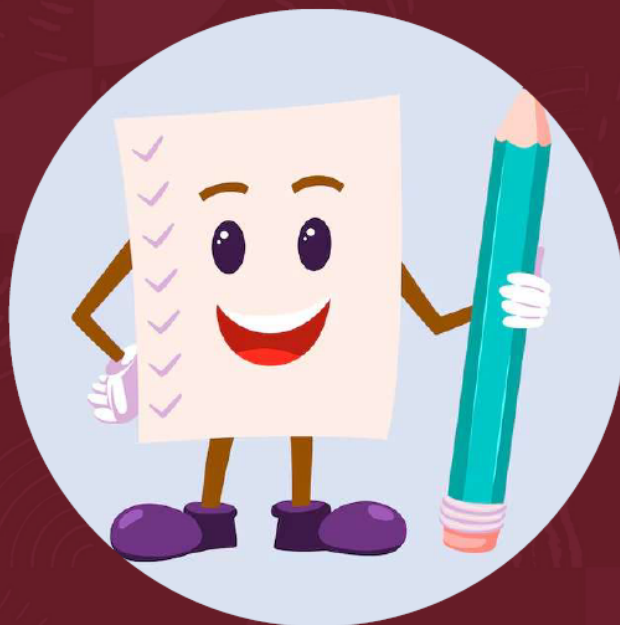
NOT

1st count = Day 3; Final 7 days after 1st count (10 days from planting)



Next Proficiency Test:

- WHEN?
 - Late Fall to Early Winter 2025
- TEST TYPE?
 - Written Test
- TOPIC?
 - Federal Seed Act, Canadian Methods and Procedures, and AOSA Rules for Testing Seeds



Next Proficiency Exam on the AOSA Rules, Canada Methods and Procedures, and Federal Seed Act is due February 27, 2026.

Submit your answers via SurveyMonkey here:

<https://www.surveymonkey.com/r/25-26-PT2>



Committee Updates

As submitted by committee chairs

Communications & Publications

AOSA Chair—Kathryn McGinnis, SCST Chair—Quinn Gillespie

At the Annual Meeting the Communications and Publications committee met to discuss working group memberships and the ongoing process of indexing old issues of the AOSA and SCST newsletters. Many thanks to Carolyn Langley at the Idaho State Seed Lab for her willingness to jump in on this project.

Consolidated Exam Committee

AOSA Chair—Leanne Duncan, SCST Chair—Sarah Graybill

The Exam Committee held its first virtual examinations this fall for the Purity Written, Germination Written, and Germination Practical exams. The Purity Practical exam continues to be administered in person. This session was highly successful, with 15 candidates completing the Germination exam — all of whom passed. A total of 12 candidates participated in the Purity exam, and 9 were successful.

All exam components continue to follow the open *Rules* format, allowing candidates to use either an unmarked paper or electronic version. As questions have been redesigned accordingly, candidates should be well-versed in locating information within the *Rules* efficiently to maximize their exam time.

The Committee extends sincere thanks to all question writers, material providers, and exam graders for their contributions. A special thank-you goes to **Tyann Alexander**, who dedicated countless hours to mastering the exam platform, optimizing question formats, entering all content, and ensuring the smooth operation of every exam. Your hard work and commitment are greatly appreciated.

In the coming months, the Committee will be updating the following documents and materials:

- Seed Identification List
- Exam Application

AOSA & SCST Consolidated Exam Information and Content

A notification will be distributed by email upon completion of these updates.

The Committee is also seeking new members. Participation now requires less time for grading written exams, as most are automatically scored. The primary responsibilities include reviewing SCST applications and grading the practical exams. If you are interested in contributing to this important work, we would be pleased to hear from you.



Cultivar Purity Committee

Chair—Diandra Viner

This committee is now a part of the Genetic Technology Committee for practical purposes, and some meeting times are shared. Email discussion regarding the ryegrass allelic discrimination test is underway as the committee meeting ran short of time in person in June for that opportunity. There are pros and cons to the test and how to proceed. There may be a future rules proposal put forth to remove it from the AOSA Rules but keep in CPH. Also, it is in use by the industry and can be used when fluorescence results are unexpected or problematic. *Lolium* fluorescence is included in the Federal Seed Act and so seed testing results and hence seed values are determined by that test and its follow-up methods. Improved solutions surrounding ‘ryegrass testing’ have been desired for a long time.

The cultivar purity committee is in need of one or two people to assist in writing the SOP for future cultivar purity methods. Having a process in place for what needs to be included to submit a proposal for inclusion into the Handbook in the future is a next main goal. If you are willing to volunteer to help, write or edit this SOP, please reach out to the chairperson and we can work together! (Diandra.viner@state.mn.us)

Genetic Technology Committee

Chairs—Molly Richeson, Kalyn Brix

Since the Annual Meeting, the Genetic Technology committee has been mostly focused on coordinating the weeklong 2026 Genetics Superworkshop to be held at Iowa State University in February. Thus far, we have recruited 14 speakers and are actively seeking sponsors for the event for the first time since its inception. We intend to offer the RGT/CGT exam on the final day of the Superworkshop and are looking forward to launching our registration and agendas by the end of 2025.

RGT Board of Examiners

RGT BOE Chair—Molly Richeson

The RGT Board of Examiners has been busy trying to pull together the final version of the Herbicide Bioassay virtual practical exam, necessary due to the unavailability of seed for the practical exam

Referee Committee

SCST Chair—Quinn Gillespie, AOSA chair pending.

Chi has shifted her position to be the new AOSA Rules chair with the retirement of Todd Erickson. She has been able to advise on some referee projects as Rules chair while we are pending either the completion of the merger or the assignment of a new AOSA chair for the committee. Upcoming referees for AOSA-SCST include:

Poa secunda germination temperature referee conducted by the Conservation, Reclamation, and Tree Seed committee. This project is being coordinated by Randy Crowl, with this round focused on testing conducted by analysts familiar with the species. This referee will compare several temperature and pre-chill options with the



original rules for *Poa secunda*.

Sweet corn, ornamental corn, popcorn ‘hollow tips’ germ study, conducted by the Midwest Region. Lots are being selected and prepared for this study.

Rapeseed/Canola germination on top of blotters, vs. between blotters. Samples are still being collected of *Brassica rapa* and *Brassica napus*. Coordinated by Diandra Viner. This study is in support of a potential rule proposal to add TB as a substrate for Rapeseed/Canola.

Sorghum-sudangrass study on germination on top of creped cellulose paper. This study is designed to evaluate whether TC should be added as a substrate for Sorghum-sudangrass.

Proficiency Committee

AOSA Chair—Leanna Leach, SCST Chair—Heidi Arneson

Since the Annual Meeting, the Proficiency Test Committee has been busy working on the second PT for the 2025-2026 year and gathering information about internal laboratory proficiency procedures.

The second and final planned PT for this year is a written exercise intended to demonstrate the analyst’s ability to navigate the Federal Seed Act, Volume 1 of the AOSA Rules, and the Canadian Methods and Procedures. Tests were sent out during the second week of October. Responses should be submitted by February 27, 2026, via Survey Monkey: <https://www.surveymonkey.com/r/25-26-PT2>

During the PT Committee meeting in Missoula, we had a great discussion about internal laboratory proficiency practices. The PT Committee would like to create a training and/or guide for labs that would like to develop an internal program and explore the possibility of facilitating an inter-lab PT exchange program of sorts. To begin work on this project, a survey was sent out inquiring about current practices. We’ve gotten some great feedback so far, but we can always use more information. So, if you haven’t already, please have one member of your lab fill out this survey as soon as possible: https://www.surveymonkey.com/r/Internal_PT

AOSA Rules Committee

AOSA Chair—Lan Chi Trinh

The Rules committee received ten proposals for changes to the AOSA Rules. These are in the process of being evaluated by members of the Rules committee. Rules committee members should have received copies of the proposals and evaluation sheets from Chi.



Improving Cotton Germination Testing and Predictability of Field Emergence

Michael M. Phillips, NCSU

Michael M. Phillips, Guy D. Collins North Carolina State University, Raleigh, NC,
Darrin Dodds, Mississippi State University, Starkville, MS,
Jenny Dudak, Oklahoma State University, Stillwater, OK,
Keith L. Edmisten, North Carolina State University, Raleigh, NC,
Bill Foote, North Carolina Department of Agriculture, Raleigh, NC,
William Frame, Virginia Tech University, Suffolk, VA,
Tim Gutormson, SoDak Laboratories, Brookings, SD,
Camp Hand, University of Georgia, Tifton, GA,
Jeremy Hendricks, North Carolina State University, Raleigh, NC,
Susan Jaconis, Cotton Incorporated, Raleigh, NC,
Mike Jones, Clemson University, Florence, SC,
Ken Lege, Texas A&M University, Lubbock, TX,
Benjamin McKnight, Texas A&M University, College Station, TX,
Gaylon Morgan, Cotton Incorporated, Raleigh, NC,
Randy Norton, University of Arizona, Safford, AZ,
Brian Pieralisi, Mississippi State University, Starkville, MS,
Tyson Raper, University of Tennessee, Jackson, TN,
Charlie Robertson, North Carolina State University, Raleigh, NC,
Tyler Sandlin, Auburn University, Madison, AL,
Evan Sayani, North Carolina State University, Raleigh, NC,
Sudeep Sidhu, University of Florida, Quincy, FL,
Logan Simon, Kansas State University, Garden City, KS,
James Smith, Mississippi Department of Agriculture and Commerce, Starkville, MS,
Lori Unruh Snyder, North Carolina State University, Raleigh, NC,
Bradley Wilson, University of Missouri, Portageville, MO

Abstract

The Cotton Standard Germination test (warm test) and the Cotton Vigor test (cool test) are important measures of planting seed quality and help guide planting decisions for growers. To be legal for sale in most states, cotton planting seed must meet minimum requirements in the Standard Germination test—under procedures outlined by the Association of Seed Analysts (AOSA). However, the Cotton Vigor test has no legal requirements, with only guidelines available in the AOSA Vigor Testing Handbook, but is commonly used as rough predictor of potential performance of seed when planting in sub optimally cool conditions. Previous research and anecdotal claims have suggested inconsistencies in results across testing laboratories for both the cotton warm and cool test, as well as substantial variation in the ability of these tests to predict field emergence with meaningful precision. Results from North Carolina based studies in 2022 and 2023 suggest the current 4 centimeter radicle-hypocotyl threshold used for determining germination in the Cotton Vigor test did not optimize the test's correlation to field emergence. In 2024, the standard germination test and vigor test were conducted on 23 diverse seed lots at four laboratories—while the laboratory at North Carolina State University also measured radicle-hypocotyl lengths for all seedlings in the Cotton Vigor test. Field experiments were conducted at 15 locations across the Cotton Belt in 2024 and included 30 planting dates, targeting both poor conditions (0 to 25 predicted heat units within the first 5 days of planting) and optimal conditions (>25 predicted heat units within the first 5 days of planting). Results from 2024 underscore the importance of quantifying abnormal seedlings in the Cotton Standard Germination test—where more rigid testing procedures could maximize correlation to field emergence. Results from 2024 also indicate an improved correlation to field emergence by utilizing a shorter radicle-hypocotyl length threshold in the Cotton Vigor test. There will be a continuation of this study in 2025 to assess these findings in a new set of environments. These proposed adjustments to seed testing procedures may induce simultaneous improvements in laboratory reproducibility and field predictability.



Germination and Field Performance of Mechanically Damaged Soybeans at the Embryonic Axis

Eunsoo Choe, PhD.

American Takii Inc.

301 Natividad Rd. Salinas, CA 93906

Some soybean (*Glycine max*) seedlings can recover from mechanical damage at the embryonic axis and develop into normal plants. However, limited information is available to accurately classify these seedlings and correlate laboratory germination results to field performance. This research aimed to: 1) elucidate soybean germination following controlled mechanical damage at the embryonic axis, 2) compare seedling performance of damaged seeds under different conditions and evaluation times, and 3) evaluate the field emergence, plant development, and harvest characteristics of damaged seeds. For objective 1, three soybean cultivars harvested in 2022 and 2023 were tested in 2024 and 2025. Seeds were subjected to three types of mechanical damage—radicle-tip, hypocotyl, and whole radicle (epicotyl)—alongside an undamaged control. Germination percentage was determined from four replications of 25 seeds per treatment, and seedling growth characteristics were measured on five normal seedlings per replication. Normal seedlings from damaged seeds showed significantly shorter hypocotyls and roots than undamaged ones. However, seedlings from radicle-damaged seeds had a root dry weight comparable to that of the control. Recovery patterns varied by cultivar and seed production year. For objective 2, epicotyl-damaged seeds from three cultivars were germinated on creped cellulose paper (TC) and paper with sand (TCS). Four replications of 50 seeds were evaluated at 7 and 12 days after planting. More normal seedlings were identified in the TCS than in the TC, though results varied among analysts. Extending the evaluation to 12 days increased the number of normal seedlings with comparable hypocotyl and root lengths and weights to undamaged seedlings at 7 days. For objective 3, field trials were conducted in 2024 using a randomized complete block design with three replications of 50 seeds per damage type and control at the University of Illinois. Damaged seeds exhibited reduced emergence (77%, 69%, and 47% for radicle-, hypocotyl-, and epicotyl-damaged seeds, respectively) compared to undamaged seeds (93%). Damaged seedlings emerged later, were shorter, and matured more slowly than undamaged seedlings. Harvest weight and seed size were significantly lower in damaged seeds than in undamaged seeds. However, one cultivar produced seeds of similar size regardless of the damage. While some damaged seeds were capable of producing normal plants in the laboratory and field, discrepancies remain within germination readings of damaged seeds and between germination readings and field emergence. Further studies to improve uniformity in germination assessments based on a better understanding of seedling development will enhance decision-making for seed quality and field productivity.



Purity Weights for Canola in AOSA Rules

At the 2025 Annual Meeting a rule proposal to add the common name “Canola – Argentine type” was voted to be added to the AOSA Rules by the membership at the meeting. This change is reflected in the current edition of the AOSA Rules which became available at the beginning of October. This is a growing crop in the United States and has already been an important agronomic crop in Canada for many years.

However, analysts looking for Canola in the Table 2A are presented with two different sets of purity and bulk weights. [See sidebar] Both types of *Brassica napus* var. *napus* may be referred to as canola (Argentine type). This issue has been brought to the notice of the AOSA-SCST Purity Committee and the committee will be working on the correct weights for this species when submitted as canola (Argentine type).

SCST Purity Chair, Morgan Webb, noted that “The hybrid canola, all *Brassica napus*, is very large seeded.” Because of this analysts are encouraged to either conduct a seed count to determine the purity weight or to use the larger weight of 10g for the purity analysis and 100g for the noxious exam to ensure that 25,000 seeds are examined for the noxious portion.

To help the purity committee propose an update to the weights for this species, analysts are asked to please send seed count results to the purity committee so that the correct purity weight, bulk weight, number of seeds per gram, and number of seeds per pound can be included in table 2A. A link to the Purity Weight Calculator developed by the Statistics Committee is included below.

<i>Brassica napus</i> L. var. <i>napus</i> annual rape and canola (Argentine type)	7	70
<i>Brassica napus</i> L. var. <i>napus</i> winter rape and canola (Argentine type)	10	100

Differing purity weights for Canola from Table 2A.

Purity Weight Calculation Resources

Purity Weight Calculator (.xlsx file) <https://analyzeseeds.com/wp-content/uploads/2023/07/PW-Calculator-v3-1.xlsx>

Purity Weight Calculator User Guide (.pdf file) <https://analyzeseeds.com/wp-content/uploads/2023/07/Determining-Purity-Bulk-Noxious-Exam-Weights-v4.pdf>

These tools are also available on the Purity Committee page on Analyzeseeds.com



Cautions about Early *Pisum sativum* counts

Sharon Davidson, RST & Quinn Gillespie, RST

These images are from four lots of peas that were germinated in April. These photos were taken at eight days, and while the smaller seedlings may at first look like they would produce a plant eventually they peter out and don't grow to produce normal epicotyls and roots. This is a problem in some sprouting pea varieties. Even when germinated in organic growing media there was no improvement.

In some cases, abnormalities like this can be caused by mechanical damage to the pea during processing. Per the AOSA Rules, under the notes for Fabaceae, Legume Family IV, "Damage at the point of attachment of the cotyledons may be difficult to evaluate if seedlings are removed too early in the test period." Analysts are advised to wait for clear epicotyl and root emergence before removing seedlings at the first count due to the potential to inaccurately evaluate these stunted seedlings as normal.

Ensuring adequate moisture during the test period or germinating in soil has not typically been shown to improve the germination of these abnormal seedlings but may assist analysts in the evaluation of normal seedlings.



Stunted abnormal seedlings may be difficult to interpret if first counts are made too early during the testing period. Any small seedlings showing at the first count should not be assumed to be normal and should be left to continue for the remainder of the test period. *Photo credit: Sharon Davidson*



Additional Images



Above: Normal pea seedling, small normal seedling, and abnormal seedling with epicotyl defects at 8 days.

Right: Normal seedling and two abnormal seedlings with epicotyl defects at eight days.

Epicotyl elongation is a common test condition when growing in rolled towels.





Study Guide: Seed Testing Vocabulary

U D B Q A S U S W T J W I D A G A R R H
G Y O B B A X H L O O D S O M K S G I V
P G W A M H R R I A J B G C W S D A X X
C N K R L A F W B S N T V A Q W Y O J S
R S T U K C V P N C I J L H Y Y J M E A
P S K O B I Q U R E C J B Y X B I J E A
J A V Z L H N I Q X T L J D C Z A V T L
H R F T I E M U G A E S E R I A W R Y O
W G I W Z B R O W E L C U A O J I Q H C
O E B M G N O A O G T E S B V Y R G P A
J U P G D Y C T N U U N M Q N E R E O S
H C C P I H H B I C N F L C O V R V D N
N S F Z C B E X A Q E F P P I D N S N E
H E Q X L O S P R R U S D M S Q H D E P
H R J O A Z T A L G O D A M I D D V H S
R J E N H P E A I N H R Z J C V U N D V
C X X E C S R G I I V B X C X P J W I Q
D X J K U Y N B C P I T O E E S A M V O
M S N C P Q F I J O D E A H X I X N E V
F E S T U C A Q N L E K B J G W R A L X

Word Bank

SOEINIXC

CFSTAEU

PEAOCNALS

GAAR

HNDEOEPTY

ROTESALECN

NTLEUT

REOCESTR

RESALEVC

CAHDLIC

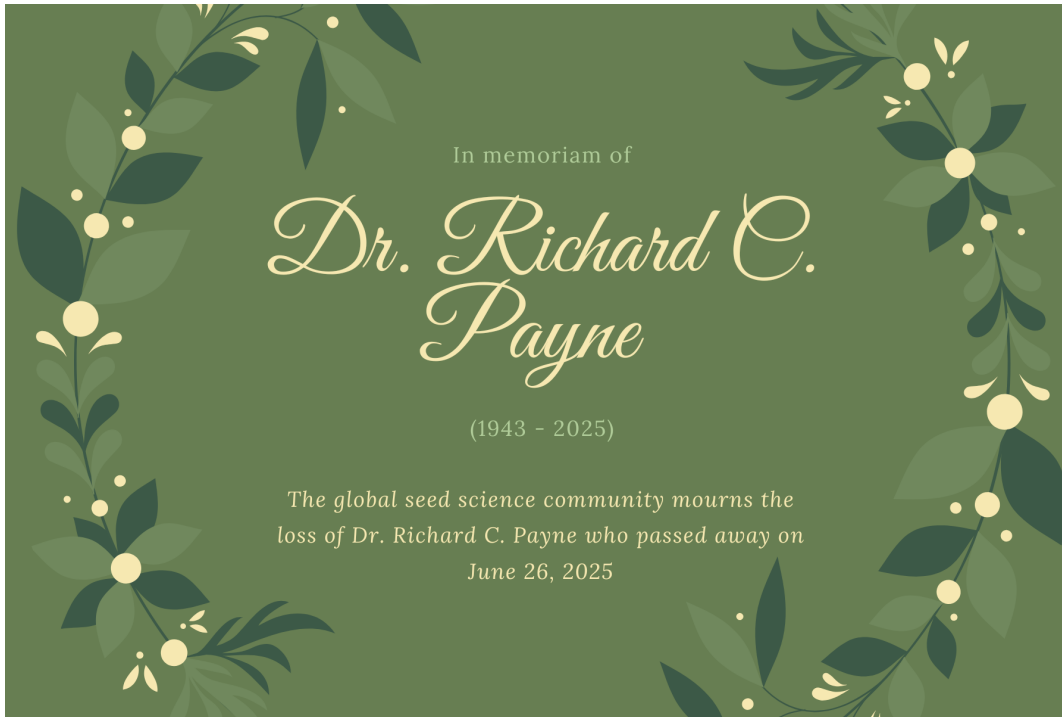
RGSCSERSUEA

1. Chapter 14 of the AOSA Rules
2. Common name for Galium aparine, per Canada Weed Seed Order
3. Embryo _____ method, used for viability testing of ungerminated seeds.
4. These parasitic wasps primarily affect alfalfa seeds, causing them to be puffy, soft, or dry and crumbly.
5. For germination purposes, this genus is considered to belong to one of three groups, per Canada M&P
6. The pure seed unit of Verbena (Glandularia spp.)
7. The only cultivar of Paspalum notatum with a uniform blowing point.
8. This seed may need soaking for 48 hours in water to break dormancy.
9. This substrate can be used for tomato germination or to make a vegan gelatin alternative.
10. This fungal presence can be beneficial in lawn grasses, or harmful in forage grasses.
11. Location for next year's Annual Meeting!



Lost Resources

Dr. Richard C. “Dick” Payne



The global seed science community mourns the loss of Dr. Richard C. Payne who passed away on June 26, 2025. A visionary leader whose pioneering work shaped seed testing protocols both domestically and internationally, Dr. Payne’s legacy is one of enduring excellence and profound influence.

Dr. Payne’s distinguished career began in 1975 when he joined the USDA’s Seed Regulatory and Testing Branch (SRTB) as a plant physiologist. He immediately made his mark by developing and

standardizing groundbreaking laboratory testing procedures to distinguish between varieties of agricultural and vegetable species—a critical foundation of seed science.

His expertise propelled him to Laboratory Supervisor in 1982, a role that ushered him onto the international stage. Representing the USDA at the International Seed Testing Association (ISTA), Dr. Payne’s leadership was quickly recognized. As Chairman of the ISTA Variety Committee, he spearheaded the first major revision of the seminal Testing for Genuineness of Cultivar handbook in 1993, a pivotal contribution that harmonized global standards.

In 1999, Dr. Payne was appointed Chief of SRTB, where he provided overarching administration for the USDA’s regulatory, laboratory, and outreach programs. In this capacity, he became a central figure for the domestic seed industry, earning numerous honors from the Association of Official Seed Analysts/Society of Commercial Seed Technologists (AOSA/SCST), the American Seed Trade Association (ASTA), the Association of American Seed Control Officials (AASCO), the Association of Official Seed Certifying Agencies (AOSCA), and others for his decades of dedicated service to the seed industry.

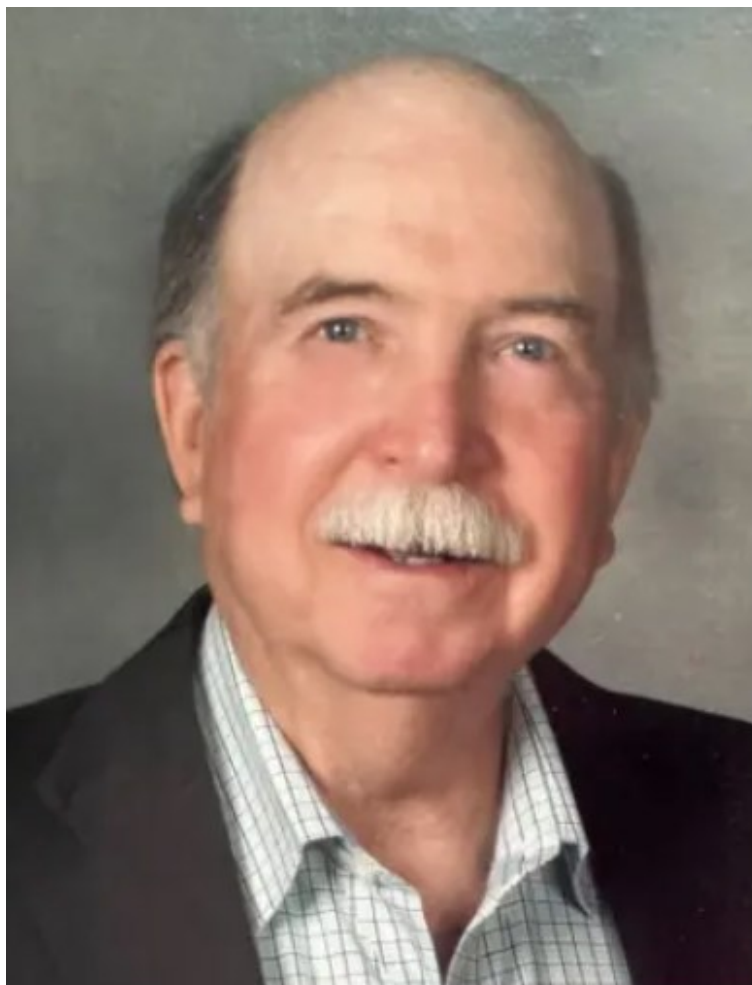
Dr. Payne’s intellect, dedication, and leadership fundamentally guided the course of seed science. While he will be deeply missed, his foundational contributions continue to ensure the quality, integrity, and security of the world’s seed supply.

Dr. Payne was granted the AOSA Merit Award in 1996 for his contributions to the seed industry and was welcomed to SCST as an honorary member in 2011. He will be very missed by all who had the pleasure of working with him.



Lost Resources

Dr. Bennie Charles Keith, Mississippi Crop Improvement Association, AOSCA



Bennie Charles Keith, Jr., 72, of Starkville, passed away May 31, 2025, at University Medical Center in Jackson.

Born on July 4, 1952, in Hollandale, he was the oldest son of Bennie Charles and Rose Katherine (Harper) Keith. He learned the value of hard work early, growing up on a farm, and helping at his grandparents country store in Murphy. A prankster, Bennie led his siblings and friends on many adventures. Throughout the years, he had numerous pets with the most memorable being an alligator later adopted by a park ranger and used to teach children of wildlife habitat. Bennie's love for animals began early and continued through his life. "Bless the little animals" was always included when saying grace.

In 1970, he graduated from Humphreys Academy, where he was an All-Conference football player. He won the state science fair with his invention of the brake fluid indicator. The light was first manufactured by the Ford Motor Company, and became a standard feature on all cars. After high school, Bennie

attended Mississippi State University, where he earned his PhD in Agronomy. In 1974, he married his high school sweetheart, the love-of-his-life, Mary Diane Rivers, and together, they settled in Starkville.

In 1998, Bennie retired from Mississippi State University after 25 years of service. He began his career at Delta Research Extension Center in Stoneville, MS; later transferring to serve at Mississippi State University with the Foundation Seed Service as Department Head. He finally concluded his service with MSU, as the Director of Mississippi Seed Technology Program. He authored numerous publications, taught graduate-level courses, and set up seed labs in four foreign countries. After his first retirement, Bennie began a second career with Mississippi Crop Improvement Association (MCIA) serving 20 years, as the Executive Secretary. He gave valuable service to the Association of Official Seed Certifying Agencies (AOSCA) as President in 2007-08, while serving on the Board of Directors. Along the way, he made life-long friends, and was truly a mentor to both students and colleagues in the Agricultural Industry. He was recognized among Who's Who in Mississippi and a member of the Knights of Columbus.



His career allowed him to travel the world, but his favorite place was home. He loved spending time outdoors, and was an avid hunter and fisherman. Coach Keith coached little league baseball, All-Stars, and even took a team to the Little League World Series. Whether tutoring a neighborhood child in science or sharing his wisdom and kindness, Bennie always found time to help. He was handy; there was not anything he could not build or repair. He was Doda to not only his grandchildren, but also their friends. And he always looked forward to his Friday Coffee Group.

He was a member of St Joseph Catholic Church. Serving as an usher, he was sought-out by the children who knew he always had a stash of peppermints ready to share.

He was preceded in death by his parents; a sister, Dale Keith, brothers-in-law, Jody Rivers and Earl Long, and sister-in-law Eugenia Keith.

Survivors include his wife of 51 years, Diane; daughter Emily Johnson (Andy) of Vernon, AL; son, Bennie Keith (Emily Ann) of Starkville; four grandchildren, Braxton and Eliza Johnson, Madison and Bryson Keith; siblings, Gay Long, Harper Keith, and Donna Wade (Thom), all of Hollandale; brother-in-law, Waymon Rivers (Carla) of Gravette, AR; sister-in-law Donna Ramey, and eleven beloved nieces and nephews.



Lost Resources

David Svik, Nebraska Department of Agriculture



David F. Svik, 77, of Lincoln, NE, passed away on March 30, 2025. David was born on December 1, 1947 in Atlantic, Iowa to Frank and Alice (Cimfel) Svik. He grew up in Clarkson, NE and graduated from Clarkson High School. After graduation, David moved to Lincoln, NE to attend the University of Nebraska at Lincoln. He graduated from UNL with his Bachelors of Science degree in Biology and began his career at the Nebraska Department of Agriculture as Supervisor of the State Seed Laboratory. He retired in 2016.

While in college, David worked for the California Department of Forestry and Fire Protection in Bishop, California. He then met Connie through a mutual friend. They were married on May 12, 1972, and had two sons, Aaron and Eric.

David loved the outdoors, especially camping, hunting and fishing with his boys. They were active in the Boy Scouts of America. He was also proud to be an Eagle Scout. In his retirement, David contin-

ued getting his Dunkin Donuts coffee every morning and tacos from Taco Inn on Taco Tuesday (or any day). He also enjoyed working for the Nebraska Election Commission, as Event Staff for Cornhusker Sporting Events, and as a fishing instructor for Nebraska Game and Parks.

David is survived by his wife Connie, his two sons, Aaron (Niki), Eric (Meghan), and four granddaughters, Ashley (Justin) Sellers, Olivia, Peyton, Charlotte, and his best buddy, Jersey Girl, a Toy Fox Terrier

Memorials are suggested to the family for future designation.