

Thomas G. Chastain, Ph.D.  
Abbreviated Curriculum Vitae

## Education

Ph.D.	Crop Science	Oregon State University	1987
M.S.	Crop Science	Oregon State University	1985
B.A.	Biological Sciences	California State University, Chico	1981

## Employment History

*2024-present*

*Professor Emeritus, Seed Crop Physiology and Ecology, Department of Crop and Soil Science, Oregon State University*

*2020-2024*

*Department Head, Department of Crop and Soil Science, Oregon State University*

Summary. Lead in administration of the department's academic, research, extension, and service programs. Conduct the business of the department including leading faculty meetings and provide leadership in faculty recruitment and curricular matters. Other duties include annual faculty performance reviews, approve purchases, approve travel requests and reimbursements, grant proposal approvals, employee timesheet approvals, resolving personnel matters, assignment of faculty to instructional duties, engaging in sound financial stewardship of departmental funds, and other activities as needed. Serve as liaison for the department to other departments and programs, and to the college and university. Use business intelligence to inform decisions and develop benchmark metrics for performance assessments, and employ data-driven approaches to policy recommendations. Craft and articulate a value story that effectively communicates the special nature of the department to many and varied audiences. Serve as leader in institutional advancement and development for the department. Develop private gifts that provide new department facilities, endowed professorships, and support of department programs and initiatives.

*2019-2020*

*Interim Department Head, Department of Crop and Soil Science, Oregon State University*

*2016-2019*

*Associate Department Head, Department of Crop and Soil Science, Oregon State University*

Summary. Assist or lead in administration of the department's academic, research, extension, and service programs. Conduct the business of the department including

leading faculty meetings and provide leadership in faculty recruitment and curricular matters. Other duties include annual faculty performance reviews and evaluations, approve departmental purchases, processing courtesy faculty appointments, approve faculty travel requests and reimbursements, grant proposal approvals, employee timesheet approvals, resolving personnel matters including faculty retention and negotiations, assignment of faculty to instructional duties, engaging in sound financial stewardship of departmental funds, and other activities as needed. Serve as liaison for the department to other departments and programs, and to the college and university.

*2005-10*

*Head Advisor, Department of Crop and Soil Science, Oregon State University*

Summary. My department needed a head advisor after the previous one had retired and I volunteered to fill this role. Responsible for all departmental student advising duties including recruitment and retention, course registration and scheduling, curriculum development and oversight, career counseling and placement, and scholarships for all departmental students. Served as the department internship coordinator as part of my duties. In addition to my normal teaching load of three courses, I also taught Orientation and Career Planning (CSS 100), and Senior Seminar (CSS 407) annually. I supervised one assistant in the program.

*1989-2024*

*Assistant Professor/Associate Professor/Professor of Seed Crop Physiology and Ecology, Department of Crop and Soil Science, Oregon State University*

Summary. Tenure track, state-wide research and teaching appointment in seed crop physiology and ecology. Conducted research on management, ecology, and physiology of grass seed, and other seed crops. Three years of the appointment were served at the Columbia Basin Agricultural Research Center in Pendleton. Results were published in journals including *Field Crops Research*, *Agronomy Journal*, etc. Taught CROP 200 Crop Morphology and Ecology and CROP 460/560 Seed Production courses annually, and CROP 670 Physiology of Crop Yield on an alternate year basis. Taught CROP/HORT 414 Precision Agriculture 2020-2021. Served as part of the team teaching CROP 330 World Food Crops. Developed and delivered Ecampus versions of the CROP 200 and CROP 460/560 courses. Supervised faculty research assistants, biological science technicians, graduate research/teaching assistants, and undergraduate students.

*1987-89*

*Assistant Professor of Seed Physiology (temporary position)/Acting Director Seed Testing Laboratory, Department of Agronomy and Soils, Washington State University*

Summary. Temporary non-tenure track research and teaching appointment in seed physiology. Conducted research on biochemical tests for important pathogens of wheat and Kentucky bluegrass seed. Results were published in *Crop Science* and *Phytopathology*. Responsible for teaching 36% of the crop science student credit hours in the department. Courses included Field Crop Science, Seed Production and Technology, and Vegetable Seed Production. As Acting Director, I was responsible for the administration of the official and commercial seed testing conducted at the seed laboratory while supervising 2 seed analysts and 4 lab technicians.

1983-87

*Graduate Research Assistant, Department of Crop Science, Oregon State University*

Summary. Graduate student appointment on grass seed production and physiology. Conducted research on physiology and ecology of grass seed crops, and seed moisture testing for determining harvest readiness. Results were published in *Crop Science* and *Agronomy Journal*. Assisted in teaching the seed production course.

1982-83

*Greenhouse and Lab Technician, Department of Botany and Plant Pathology, Oregon State University*

Summary. Assisted in research on seed-borne viruses of legume germplasm. Used serological techniques in the lab and conducted greenhouse research on plant viruses.

## **Administration**

My approach to leadership begins with continuous, active engagement with stakeholders, including students, clientele, faculty, alumni and the public. The department is a shared enterprise where stakeholders are engaged in the businesses of learning and investigative discovery, and have established entrepreneurial partnerships in scientific and technological activities. Active faculty governance is essential for the healthy growth and functioning of a department. The department head will recognize valuable opportunities and implement concrete actions for the betterment of the department and its stakeholders. Making sound decisions in concert with stakeholders and initiating creative actions that continually move the department forward is consistent with my long-held philosophy of leadership.

### *Initiatives and Key Accomplishments*

- Changed the department approach to policy development and implementation and have increased the role of the faculty committee structure in these processes.

- New faculty committees were created to address emerging issues and to facilitate change in the way that business in the department was done. These changes more fully integrated off-campus faculty into active committee roles.
- New policies developed include: Faculty Performance Review, Guidelines for Graduate Student Teaching Experience, Instructor Workload and Instructor Professional Development.
- Worked to lower barriers to productivity, making it easier to achieve the goals of the department.
- Employ business intelligence to inform decisions and develop benchmark metrics for performance assessments.
- Used data-driven approaches to policy recommendations for the department.
- Crafted and articulated a value story that effectively communicates the special nature of the department to many and varied audiences.
- Led a successful strategic planning process.
- Led a community climate inventory in the department in partnership with the university Ombuds Office. The outcomes of this inventory were used to inform the administration on these matters and to facilitate implementation of corrective actions and development of new policies.
- Active participant and leader in the development of the undergraduate Ecampus degree programs in the crop and soil science disciplines.
- The department's undergraduate enrollment increased by 177%, reaching the highest all-time level. More than 80% of the growth have come from Ecampus students.
- The proportion of female undergraduate students enrolled in CSS has increased from 35% to 53%.
- Faculty grant awards for research has roughly doubled from about \$3 million per year to nearly \$6 million.
- Re-established Hyslop Farm Field Day as means to engage with our communities. The event has experienced a six-fold increase in attendees over pre-pandemic levels in my time as department head.

## **Research**

My research is directed at solving practical problems of seed producers and developing new applications of previous research. A secondary goal is to increase understanding of the underlying biological processes limiting greater economic and environmental efficiency of crop production. Oregon's seed production industry annually ranks among the state's top 5 agricultural enterprises so the work has a significant impact on the state's economy.

Crop plants are biological solar energy collectors, the size and efficiency of this collector is manipulated through management of the crop. My interest is to better understand how crop partitioning to seed yield is affected by manipulation of the crop canopy, age of the

stand, nutrients and other factors. One underlying theme for the research is the systematic investigation of seed yield components and their relative contribution to seed yield.

The field is the primary laboratory for my research and much of the work has been conducted in on-farm settings at various locations around Oregon. This approach requires developing good relationships with seed producers and coordinating research activities with the commercial agriculture taking place in the farmer's fields. On-farm research lends first-hand credibility to the work and provides a front-row view of the research activities for the farmer-participant.

## **Publications**

### *Refereed Journals*

- Anderson, N.P., Morad, M.M, and T.G. Chastain. 2024. Spring nitrogen and plant growth regulator effects on seed yield in orchardgrass. *Crop Sci.* 64: (<https://doi.org/10.1002/csc2.21349>).
- Tubbs, T.B., and T.G. Chastain. 2024. Exploring traditional and novel spike traits associated with seed retention in perennial ryegrass by integrating 2D and 3D image analysis. *Crop Sci.* 64:3259–3271. (<https://doi.org/10.1002/csc2.21371>).
- Tubbs, T.B., and T.G. Chastain. 2023. Development of 3-D point cloud imaging and 2-D image processing methods for high-throughput phenotyping of perennial ryegrass spikes. *The Plant Phenome Journal* 6, (e20077.<https://doi.org/10.1002/ppj2.20077>).
- Tubbs, T.B., and T.G. Chastain. 2023. Genetic variation for seed retention in accessions and genotypic lines of perennial ryegrass (*Lolium perenne* L). *Crop Sci.* 63:306-319 (on-line <https://doi.org/10.1002/csc2.20837>).
- Klein, M.L., T.G. Chastain, C.J. Garbacik, Y.P. Qian, and R. Mc Donnell. 2020. Acute toxicity of essential oils to the pest slug *Deroceras reticulatum* in laboratory and greenhouse bioassays. *Journal of Pest Science* 93:415–425.
- Morad, M.M., N.P. Anderson, and T.G. Chastain. 2019. Trinexapac-ethyl affects seed production in crimson clover (*Trifolium incarnatum* L.). *Agron. J.* 111:1333-1340.
- Angsumalee, D., S.G. Elias, N.P. Anderson, T.G. Chastain, and C.J. Garbacik. 2019. Plant growth regulator and irrigation effects on physiological and harvest maturity of red clover in relation to seed quality. *Agron. J.* 111:572-580.
- Chastain, T.G., C.J. Garbacik, and W.C. Young III. 2017. Tillage and establishment system effects on annual ryegrass seed crops. *Field Crops Res.* 209:144-150.
- DuVal, A.S., T.G. Chastain, C.J. Garbacik, and D.J. Wysocki. 2017. Nitrogen affects seed production characteristics in yellow mustard (*Sinapis alba* L.). *Agron. J.* 109:995-1004.
- Hampton, J.G., A.J. Conner, B. Boelt, T.G. Chastain, and M.P. Rolston. 2016. Climate change: Seed production and options for adaptation. *Agriculture* 6(3), 33 Published online July 26, 2016; doi: 10.3390/agriculture6030033

- Anderson, N.P., T.G. Chastain, and C.J. Garbacik. 2016. Irrigation and trinexapac-ethyl effects on seed yield in first- and second-year red clover stands. *Agron. J.* 108: 1116–1123.
- Ferguson, B.T., T.G. Chastain, C.J. Garbacik, B.T. Chastain, and D.J. Wysocki. 2016. Spring nitrogen and cultivar affect seed production in winter canola (*Brassica napus* L.). *Agron. J.* 108:1124–1131.
- Chastain, T.G., C.M. King, W.C. Young III, C.J. Garbacik, and D.J. Wysocki. 2015. Irrigation frequency and seasonal timing effects on perennial ryegrass (*Lolium perenne*) seed production. *Field Crops Res.* 180:126-134.
- Anderson, N.P., D.P. Monks, T.G. Chastain, M.P. Rolston, C.J. Garbacik, Chun-hui Ma, and C.W. Bell. 2015. Trinexapac-ethyl effects on red clover seed crops in diverse production environments. *Agron. J.* 107:951-956.
- Chastain, T.G., W.C. Young III, C.J. Garbacik, and T.B. Silberstein. 2015. Trinexapac-ethyl rate and application timing effects on seed yield and yield components in tall fescue. *Field Crops Res.* 173:8-13.
- Zapiola, M.L., T.G. Chastain, C.J. Garbacik, and W.C. Young III. 2014. Trinexapac-ethyl and burning effects on seed yield components in strong creeping red fescue. *Agron. J.* 106:1371-1378.
- Anderson, N.P., T.G. Chastain, and C.J. Garbacik. 2014. Effect of a strobilurin containing fungicide applied at two timings on seed yield in tall fescue. *Crop Management* 13 Published online April 14, 2014, doi:10.2134/CM-2013-0011-RS
- Chastain, T.G., C.J. Garbacik, and W.C. Young III. 2014. Spring-applied nitrogen and trinexapac-ethyl effects on seed yield in perennial ryegrass and tall fescue. *Agron. J.* 106:628-633.
- Chastain, T.G., W.C. Young III, T.B. Silberstein, and C.J. Garbacik. 2014. Performance of trinexapac-ethyl on seed yield of *Lolium perenne* in diverse lodging environments. *Field Crops Res.* 157:65-70.
- Guy, S.O., D.J. Wysocki, W.F. Schillinger, T.G. Chastain, R.S. Karow, K. Garland-Campbell, and I.C. Burke. 2014. Camelina: adaptation and performance of genotypes. *Field Crops Res.* 155:224-232.
- Wysocki, D.J., T.G. Chastain, W.F. Schillinger, S.O. Guy, and R.S. Karow. 2013. Camelina: seed yield response to applied nitrogen and sulfur. *Field Crops Res.* 145:60-66.
- Huettig, K.D., T.G. Chastain, C.J. Garbacik, W.C. Young III, and D.J. Wysocki. 2013. Spring irrigation management of tall fescue for seed production. *Field Crops Res.* 144:297-304.
- Hampton, J.G., B. Boelt, M.P. Rolston, and T.G. Chastain. 2013. Effects of elevated temperature and CO<sub>2</sub> on seed quality. *J. Agric. Sci. (Cambridge)* 151:154-162. doi: 10.1017/S0021859612000263, Published online by Cambridge University Press 30 March 2012.
- Schillinger, W.F., D.J. Wysocki, T.G. Chastain, S.O. Guy, and R.S. Karow. 2012. Camelina: planting date and method effects on stand establishment and seed yield. *Field Crops Res.* 130:138-144.

- Chastain, T.G. 2012. Crop Ecology: Productivity and Management in Agricultural Systems Second Edition. By David J. Connor, Robert S. Loomis, and Kenneth G. Cassman. Cambridge University Press. The Quarterly Review of Biology 87 (4): 379.
- Chastain, T.G., C.J. Garbacik, T.B. Silberstein, and W.C. Young III. 2011. Seed production characteristics of three fine fescue species in residue management systems. Agron. J. 103:1495-1502.
- Mueller-Warrant, G.W., W.C. Young III, T.G. Chastain, and S.C. Rosato. 2007. Residue management and herbicides for downy brome (*Bromus tectorum*) control in Kentucky bluegrass grown for seed. Weed Tech. 21:411-421.
- Zapiola, M.L., T.G. Chastain, C.J. Garbacik, T.B. Silberstein, and W.C. Young III. 2006. Trinexapac-ethyl and open-field burning maximize seed yield in creeping red fescue. Agron. J. 98:1427-1434.
- Meints, P.D., Chastain, T.G., W.C. Young III, G.M. Banowetz, and C. J. Garbacik. 2001. Stubble management effects on three creeping red fescue cultivars grown for seed production. Agron. J. 93:1276-1281.
- Chastain, T.G., W.C. Young III, C.J. Garbacik, P.D. Meints, and T.B. Silberstein. 2000. Alternative residue management and stand age effects on seed quality in cool-season perennial grasses. Seed Technology 22: 34-42.
- Young, W.C. III, T.B. Silberstein, T.G. Chastain, and J.S. Rowarth. 1998. The relationship between applied nitrogen, nitrogen concentration in herbage, and seed yield in perennial ryegrass (*Lolium perenne* L.). II. Cultivars in Oregon. J. Appl. Seed Prod. 16:115-124.
- Chastain, T.G., and W.C. Young III. 1998. Vegetative plant development and seed production in cool-season perennial grasses. Seed Science Res. 8:295-301.
- Chastain, T.G., G.L. Kiemnec, C.J. Garbacik, B.M. Quebbeman, G.H. Cook, and F.J. Crowe. 1997. Residue management strategies for Kentucky bluegrass seed production. Crop Sci. 37:1836-1840.
- Silberstein, T.B., T.G. Chastain, and W.C. Young III. 1996. Growth and yield of red clover seed crops treated with paclobutrazol and uniconazol. J. Appl. Seed Prod. 14:17-23.
- Ball, D.A., D.J. Wysocki, and T.G. Chastain. 1996. Nitrogen application timing effects on downy brome (*Bromus tectorum*) and winter wheat (*Triticum aestivum*) growth and yield. Weed Tech. 10:305-310.
- Chastain, T.G., K.J. Ward, and D.J. Wysocki. 1995. Seedbed residue and seed size relationships in winter barley. Agron. J. 87:517-520
- Chastain, T.G., K.J. Ward, and D.J. Wysocki. 1995. Stand establishment responses of soft white winter wheat to seedbed residue and seed size. Crop Sci. 35:213-218
- Chastain, T.G., B.L. Klepper, and D.E. Wilkins. 1994. Relationship of wheat seed sprouting severity, planting depth, and seed treatment to emergence and yield. Crop Sci. 34:508-513.
- Smiley, R.W., W. Uddin, P.K. Zwer, D.J. Wysocki, D.A. Ball, T.G. Chastain, and P.E. Rasmussen. 1993. Influence of crop management practices on physiologic leaf spot of winter wheat. Plant Dis. 77:803-810.

- Chastain, T.G. 1992. Relationship of ergot to Kentucky bluegrass seed production and quality. *J. Appl. Seed Prod.* 10:7-10.
- Chastain, T.G. 1991. High temperature sodium hypochlorite effects on viability of *Tilletia controversa* teliospores and wheat seed. *Crop Sci.* 31:1327-1330.
- Chastain, T.G., and B. King. 1990. A biochemical method for estimating viability of teliospores of *Tilletia controversa*. *Phytopathology* 80:474-476.
- Chastain, T.G., and D.F. Grabe. 1989. Spring establishment of turf-type tall fescue seed crops with cereal companion crops. *Agron. J.* 81:488-493.
- Chastain, T.G., and D.F. Grabe. 1989. Spring establishment of orchardgrass seed crops with cereal companion crops. *Crop Sci.* 29:466-471.
- Chastain, T.G., and D.F. Grabe. 1988. Establishment of red fescue seed crops with cereal companion crops. II. Seed production and economic implications. *Crop Sci.* 28:313-316.
- Chastain, T.G., and D.F. Grabe. 1988. Establishment of red fescue seed crops with cereal companion crops. I. Morphological responses. *Crop Sci.* 28:308-312.

#### *Peer-reviewed Extension Technical Bulletins*

- Moore, A.D., D.J. Wysocki, T.G. Chastain, T. Wilson, and A.S. DuVal. 2019. Camelina: nutrient management guide. Pacific Northwest Extension Publication, PNW 718 (5 pages).
- Anderson, N.P., T.G. Chastain, J.M. Hart, W.C. Young III, and N.W. Christensen. 2014. Tall fescue grown for seed: a nutrient management guide for western Oregon. Nutrient Management Guide. Oregon State University, EM 9099. (42 pages)
- Schillinger, W.F., D.J. Wysocki, T.G. Chastain, S.O. Guy, and R.S. Karow. 2014. Camelina: effects of planting date and method on stand establishment and seed yield. Pacific Northwest Extension Publication, PNW 661. (10 pages)
- Hart, J.M., N.P. Anderson, T.G. Chastain, M.D. Flowers, C.M. Ocamb, M.E. Mellbye, and W.C. Young III. 2013. Perennial ryegrass grown for seed. Nutrient Management Guide. Oregon State University, EM 9086. (46 pages)
- Hart, J.M., N.P. Anderson, A.G. Hulting, T.G. Chastain, M.E. Mellbye, W.C. Young III, and T.B. Silberstein. 2012. Postharvest residue management for grass seed production in Western Oregon. Oregon State University, EM 9051. (18 pages)
- Silberstein, T.B., M.E. Mellbye, T.G. Chastain, and W.C. Young III. 2010. Using seed moisture as a harvest management tool. Oregon State University, EM 9012. (8 pages)

#### *Patents*

- Jing Zhou, Nicole P. Anderson, David Maliszewski Thomas Chastain, Marshall Garrett, Logan Paul Snell. 2024. A Portable Moisture Sensing Device for Rapid Determination of Seed Moisture Content and Seed Harvest Timing. United States Patent Application Number 63/671,710.



### *Other Publications*

Books and Book Chapters (2 total)

Reviewed University Research and Extension Publications (116 total)

Proceedings and Symposia (28 total)

Abstracts (43 total)

Non-technical publications (6 total)

### **Professional Meetings, Symposia, and Conferences**

I have served as presenter, organizer, session chair, plenary speaker, and keynote speaker at domestic and international venues. Invited speaker at domestic (114 events) and international (14 events) venues, speaker at field days and farm tours (49 events)

### **Grants**

Awarded \$3,567,357 in grant funds from the following sources: federal agency (37.7%), state and local governments (36.3%), commodity commissions (14.3%), foundations (9.3%), and corporate (2.5%).

#### *Selected grant funding sources:*

US Dept. of Transportation

National Science Foundation

Agricultural Research Foundation

Oregon Seed Council

Oregon Dept. of Agriculture

Syngenta

Murdock Charitable Trust

City of Portland Biofuels Investment Fund

### **Teaching**

I strive to provide a transformative educational experience for students and other learners in on-campus and Ecampus venues. One of my goals in teaching is for my students to learn to be discriminating consumers of information, a skill that they will need in their careers. For example, information is widely available from a vast array of sources but the challenge for students is to ascertain what is solid and reliable and to differentiate that from opinion and speculation. Maintaining an unbridled enthusiasm for teaching and the subject matter is important. For me, lecturing is an extended conversation with students over the course of a term. I work hard to create an environment conducive for learning both inside and outside of the classroom setting. I believe that student engagement is not a static process but it should be active and fluid, and able to adapt to the student and situation. I view

teaching as a strategic investment that assists me in connecting students to my research activities, and ultimately to the needs of my clientele.

Past teaching assignments:

CROP 460/560 Seed Production, 1993-2019  
CROP 670 Physiology of Crop Yield, 1998-2019  
CROP 200 Crop Morphology and Ecology, 2002-2019  
CROP/HORT 414/514 Precision Agriculture, 2020-2021  
CSS 100 Orientation and Career Planning, 2006-2009  
CSS 407 Senior Seminar, 2006-2009

### **Advising**

Served as thesis advisor or committee member for 49 graduate students and served as an advisor or committee member for 5 undergraduate student theses. As Head Advisor, I advised 102 undergraduate students majoring in the department and an additional 54 students working toward a minor. Directed experiential learning opportunities for 59 students in domestic and international internships in research or commercial endeavors and have directed another 9 in study abroad programs.

### **Student Thesis Advising**

Major Professor for 11 MS and 5 PhD students  
Committee Member for 21 MS and 18 PhD students  
Advisor for 3 undergraduate thesis students  
Committee Member for 2 undergraduate thesis students

### **Outreach**

Disseminated results of investigative discovery and interpretation to scientists, extension personnel, agricultural industry and grower practitioners, local, state and federal government agencies, professional societies, international clientele, and the general public. Developed blog/web platforms for rapid and widespread sharing of program activities. Presented findings of research in over 200 non-classroom presentations in both domestic and foreign locations. Interviewed for over 100 newspaper, magazine, radio, and television stories on various seed production topics.

### **Leadership and Service (selected examples)**

*American Society of Agronomy*

Associate Editor and Member Editorial Board, *Agronomy Journal*, 1993–1998

*Association of Official Seed Certification Agencies/Crop Science Society of America*  
National Grass Variety Review Board, 1994-1996

*Crop Science Society of America*

Member of Board of Directors, 1995-1998, 2016-2022  
Seed Science Award Committee, 2018-2019  
Budget and Finance Committee, 2017-2022; Chair, 2020-2022  
Chair, Division C-4 (Seed Physiology, Technology, and Production), 1997  
Chair, Symposium on Turfgrass Seed Production, 1997

*Future Farmers of America*

State Career Development Event Coordinator, 2006-2009

*International Herbage Seed Group*

President, 2017 - 2019  
President Elect (Vice President), 2013 - 2017  
Member Board of Directors, 1999-2024  
Program Moderator; Perugia Italy, 1999; Lanzhou China, 2015  
Co-Chair, Organizing Committee, 2019 IHSG Conference, 2018-2019

*Oregon State University*

Faculty Senate, Academic Requirements Committee, 2016-2017  
Faculty Senate, Academic Standing Committee, 2013-2016  
Office of the Registrar, Program Review Committee, 2015  
Commencement  
    College of Ag Sciences and Column Marshall, 2006-2018  
    Faculty Representative, 2001-2005  
Faculty Advisor, OSU Track and Cross Country Club, 2000 - 2001  
Gamma Sigma Delta Scholarship Committee, 1999-2001

*Oregon State University - College of Agricultural Sciences*

Seed Certification, Foundation Seed and Plant Materials Board, 1993-2024  
Cereal Variety Release Committee, Ex-officio Member, 2019-2024  
Associate Dean of Academics Search Committee, 2020  
Plant Science Undergraduate Program Planning Committee, 2009-2011  
Scholarship and Awards Committee, 2003-2007; Chair 2005-2006  
Mentor, Ag Ambassadors, 2007-2008  
Student Recruitment and Retention Committee, 2004-2005

*Oregon State University - Department of Crop and Soil Science*

Program Director, Crop and Soil Science Undergraduate Program Review, 2016  
Scholarship Committee, 1995-2014; Chair 1999 - 2014

Curriculum Committee, 1999-2011, 2014 - 2016; Chair 2005-2009, 2014-2016  
Awards Committee, 1995-1998  
Graduate Faculty Committee, 1992-99  
Crop Science Graduate Admission Review Committee, 1994-2004  
Certification Variety Review Committee, 1993 - 2005  
Peer Teaching Evaluation Committee, 2001, Chair 2015-2016  
Promotion and Tenure Committee, 2016  
Faculty Search Committees (15), 1996-2019  
Hyslop Professorship Committee Chair, 2018

#### *Oregon Seed Council*

Seed Services Advisory Committee, 2023-2024

#### *State of Oregon*

Member Seed Certification and Foundation Seed Board, 1993 – 2019  
Field Burning Administrative Rules Committee – 1997

#### *US Department of Agriculture*

W-168 Regional Technical Committee, Seed Biology and Technology Investigations  
OSU Representative, 1992-2003  
Secretary, 1994; Vice Chair, 1995; Chair, 1996  
Symposium Publication Chair 1996-1998  
W3168 Environmental and Genetic Determinants of Seed Quality and Performance  
OSU Representative, 2018  
Technical Advisory Committee, Grass Seed Research Program  
Member, 1993 - 2005, Chair, 2001- 2005

### **International**

Seed production is an international enterprise and trade in seed among nations is commonplace. There is also an open sharing of ideas and research among various countries involved in the production of seed, and I've been involved in that by hosting foreign visitors and in making visits to other seed production areas. One organization in particular has done much to facilitate this international exchange of information and technology among scientists and practitioners alike for the past four plus decades – the International Herbage Seed Group. Visitors and visits, have been to and from, nations such as Zambia, China, Australia, Canada, Lithuania, Estonia, Latvia, South Africa, New Zealand, Denmark, Norway, Italy, Argentina, Britain, and Mexico.

Collaborative studies have been conducted with colleagues from CIMMYT in Mexico, Lincoln University and Ag Research in New Zealand, Aarhus University in Denmark, University of Saskatchewan in Canada, and others. I participated in international research

teams that investigated effects of elevated CO<sub>2</sub> and temperature on seed quality and seed production (New Zealand, Denmark, USA; 2011-2014 and trinexapac-ethyl effects on red clover seed production (USA, New Zealand, Australia, China.

Invited to CIMMYT-Mexico in 1989 to develop techniques to determine the viability of *Tilletia indica* teliospores and for killing these spores on wheat seed. This led to the acceptance of my sodium hypochlorite method for killing *T. indica* spores by USDA-APHIS, thereby making it possible to continue shipment of wheat germplasm to the USA and to other international CIMMYT cooperators.

Directed the study abroad/learning exchange programs for 8 departmental students from 2006-present in the following countries – Mongolia, New Zealand, Ghana, and Canada. Assisted in acquiring travel funds for students, including the 2007 American Society of Agronomy Cross Cultural Exchange Award for Julia Pedersen's exchange in Mongolia.

Directed the senior thesis of Austin Fricker in Nicaragua from 2010-2013 on the culture and the agricultural practices of the Miskito people indigenous the eastern coastal region of that country. Austin lived in Nicaragua among the Miskito for one year and wrote about his experiences in his senior thesis and made posts to a blog that he created for the topic.

I compared and contrasted the Oregon and New Zealand seed production systems in 2013 as part of a working visit to New Zealand hosted by the Foundation for Arable Research, Lincoln University, and AgResearch.

I served as President of the International Herbage Seed Group and I was involved in planning the organization's meetings Lanzhou China in June 2015 and in Pergamino Argentina in 2017, and in Corvallis in 2019. I was invited as a plenary speaker at the IHSG meetings in China. I have built and I maintain the current IHSG web site.

I was the keynote speaker for a seed conference and extended visit to Tasmania, Australia in November 2014. The organizers (government/private consortium) have solicited my assistance in helping them to assess their potential for a seed production industry modeled after Oregon. The results of my work continues to be shared with Tasmanian seed producers through the Tasmanian Institute of Agriculture's list serve and web site.

### **Selected Awards and Honors**

- Oregon Seed Association, 2024
- Seedsman of the Year, Oregon Seed Council, 2023
- Elected Fellow of the American Society of Agronomy and Fellow of the Crop Science Society of America, 2023
- Linn Soil and Water Conservation District, Educator of the Year, 2018

- American Society of Agronomy, Extension Education Community Materials Award of Excellence, 2015
- College of Agricultural Sciences, Ag Executive Council Distinguished Professor, 2015
- George Hyslop Endowed Professorship for Oregon Grass Seed Research and Education, 2008-2013
- Outstanding Teacher Award, 2004, 2006, 2008, 2010, Department of Crop and Soil Science