

PERSONAL VITA

FRANK A. EINHELLIG

- 1. CURRENT POSITION:** Interim Provost, Chancellor of Mountain Grove Campus,
& Professor of Biology
Missouri State University
Springfield, MO 65897
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Email: FrankEinhellig@missouristate.edu
- 2. PERSONAL / FAMILY:** Wife, Trude, is a retired Elementary & Special Reading Teacher
- 3. MILITARY SERVICE:** 1956-64, Kansas and Iowa National Guard
Staff Sergeant E-6, In-Charge of Instruction at time of discharge
- 4. EDUCATION:**

Ph.D., 1969, Botany, University of Oklahoma, Norman, OK
M.N.S. 1964, Biology, University of Oklahoma, Norman, OK
B.S., 1961, Science Education, University of Kansas, Lawrence, KS
B.S., 1960, Agriculture, Kansas State University, Manhattan, KS
A.A., 1957, Agriculture, Graceland College, Lamoni, IA

POST-DOCTORATE PROFESSIONAL DEVELOPMENT

Physiologist at USDA Foreign Disease-Weed Science Station, Frederick, MD: Su 1983; 1988
Faculty Institute at Argonne Nat. Lab., Argonne, ILL., 1978: "Gas/Liquid Chromatography:
Environmental Monitoring"
Univ. of Missouri at Kansas City, NSF Chautauqua Courses:
1978-79: "Energy Systems"
1974-75: "Social Change and Human Genetics"
1973-74: "Math. Modeling and Computing in the Biol., Physical & Soc. Sciences"
Univ. of Oklahoma, Radioisotope Institute (8 wk), 1969

5. PROFESSIONAL EMPLOYMENT:

Missouri State University, Springfield, MO — 1992 to present:

2011– Interim Provost, Chancellor of Mountain Grove campus, Professor of Biology
2006-2011: Associate Provost, Dean of the Graduate College, Professor of Biology
2005-2006: Acting Provost, Dean of the Graduate College; Professor of Biology
1994-2005: Associate Vice President for Academic Affairs, Dean of the Graduate College,
Professor of Biology
1992-1994: Associate Vice President for Graduate Studies and Research

University of South Dakota, Vermillion, SD — 1969-1992:

1989-92: Chairman and Professor of Biology; (also Summer 1986)
1978-92: Professor of Biology
1973-84: Associate Professor of Biology
1973-84: Assistant Professor of Biology
1979-84: Elected Chairman of Division of Natural Sciences & Mathematics
1971-82: Director of 8 NSF Teacher or Student Training Grants

USDA Foreign Disease-Weed Science Research Station, Frederick , MD

1983 & 1988 Summers: Cooperating Scientist and Plant Physiologist
 Black Hills Natural Science Field Station (1973, Summer): Professor
 Augustana College, Sioux Falls, SD (1972, Adjunct Professor)- taught Population Genetics and Evolution
 Shawnee Mission High School District, Shawnee Mission, KS - Science Teacher (1961-67)
 Farmland Industries Coop., Kansas City, MO - Management Trainee (1960)

6. ADMINISTRATIVE RESPONSIBILITIES

Current: Interim Provost and Chancellor of Mountain Grove Campus

- Provide oversight and direction for all academic affairs for a campus of approximately 21,000 student body. The 87 undergraduate majors and 49 graduate programs are housed in six academic colleges, the William H. Darr School of Agriculture, the Graduate College, and Library Science.
- University academic operations include the main campus in Springfield, the State Fruit Experiment Station and Research campus at Mountain Grove, a campus in Dalian China, one graduate program offered in Fairfax, Virginia, and supporting facilities such as the Bull Shoals Field Station, Darr Agricultural Center, and 3200 acre Journagan Ranch.

Prior MSU Administration: Associate Provost & Dean of the Graduate College

- Program development, oversight, and coordination of graduate programs, including admission, recruitment, degree requirements, standards, and graduate assistantships. Responsibilities included managing the Graduate College personnel and budgets of the cost center. From 1992 to 2011, I provided leadership to increase graduate programs from 20 to 48, doubling of enrollment to over 3,300 students, and tripling degrees completed to over 1200 completed annually.
- Associate Provost for coordinating and administering research and compliance issues, including all internal grants and fostering external funding. Managed the Office of Sponsored Research and Programs from 1992-2005. External funding increased from less than 2 million to over 16 million.

University of South Dakota: Chair and Professor of Biology

- Responsible for departmental affairs including finances, curriculum development, hiring, direction of faculty, and student affairs. The program included over 400 undergraduate biology majors, a service course for approximately 1,000 non-major students, and master's and Ph.D. programs that enrolled 24. The Ph.D. program was developed while I was Department Chair.
- Grant Director for a number of NSF and other research grants, and NSF-funded teacher-education programs that provided on- and off-campus instruction for science teachers (Sioux City, IA 77-79, 81-82; Pine Ridge, SD 79-80; Spirit Lake, IA 73-75)

7. Courses Taught

Missouri State University:

- Plant Physiology (BIO 544)
- Ecological Physiology (BIOL 567)
- Individual Instruction: Research and Thesis (BIOL 698 & 699)

University of South Dakota:

- Genetics (BIOL 371/571)
- Plant Physiology (BOT 427/627)
- Human Heredity and Social Change (BIOL 470/670)
- Environmental Physiology (BIOL 798)
- Human Biology (BIOL 105)
- Biology for Secondary School Teachers I & II (BIOL 405; 407)
- Contemporary Topics (BIOL 402)

- Conservation of Renewable and Nonrenewable Resources
- Telecourse: "Race to Save Planet Earth"
- Special Topics: "Energy and the North Central Plains"
- Topics in Genetics (BIOL 790)
- Individualized: Thesis BIOL 790); Spec. Problems (BIOL 491,791)

8. PUBLICATIONS AND RESEARCH INTERESTS

Research Interest.

My research has focused on the study of biochemical interactions occurring among plants (allelopathy) with special emphasis on the physiological mechanisms of action of allelochemicals, interactions among these chemical and other environmental stress, and weed-crop interactions. I also have maintained an active interest in research and development of science teaching methods.

Edited Book:

Inderjit, K. M. M. Dakshini, and F. A. Einhellig. 1995. *Allelopathy: Organisms, Processes, and Applications*. ACS Symposium Series 583; American Chemical Society, Washington, DC.

Book Chapters (refereed):

Einhellig, F.A. 2003. Mode of action of phenolic compounds. pp. 217-238. *In: Allelopathy: Chemistry and Mode of Action of Allelochemicals*. Macias, F.A., J. C. G. Galindo, J. M. G. Molinillo, and H.G. Cutler (eds.). CRC Press LLC, Boca Raton, FL.

Einhellig, F.A. 2002. The physiology of allelochemical action: clues and view. pp. 1-23. *In Allelopathy: From Molecules to Ecosystems*, Reigosa Roger, M.J. and N. Pedrol (eds), Science Publishers, Inc., Enfield, New Hampshire. (By request, adapted from the Symposium publication below)

Einhellig, F.A. 2001. The physiology of allelochemical action: clues and views. pp. 3-25. *In: First European OECD Allelopathy Symposium: Physiological Aspects of Allelopathy*, Bonjoct, N.P. and M.J. Reigosa Roger (eds.), University of Vigo, Vigo, Spain.

Waller, G.R. and F.A. Einhellig. 1999. Overview of allelopathy in agriculture, forestry, and ecology. pp. 221-245. *In: Biodiversity and Allelopathy: From Organisms to Ecosystems in the Pacific*, Chou, C.H., G.R. Waller, and C. Reinhardt (eds.), Academia Sinica, Taipei, ROC.

Einhellig, F.A. 1999. An integrated view of allelochemicals amid multiple stresses. pp. 479-494, *In: Principles and Practices in Plant Ecology: Allelochemical Interactions*, Inderjit, K.M.M. Dakshini, and C.L. Foy (eds.), CRC Press LLC, Baco Raton, FL.

Einhellig, F.A. 1995. Plant x plant allelopathy: Biosynthesis and mechanism of action. pp. 59-74. *In Proceedings: V Congresso Brasileiro de Fisiologia Vegetal* (Lavras, Minas Gerais, Brazil: (July 1995); Publisher: Sociedade Brasileira De Fisiologia Vegetal, Universidade Federal De Lavras, Brazil.

Einhellig, F. A. 1995. Allelopathy: Current status and future goals. pp. 1-24. *In: Allelopathy, Organisms, Processes, and Applications*, Inderjit, K.M.M. Dakshini, and F.A. Einhellig (eds.), ACS Symposium Series NO. 582, Am. Chem. Soc., Washington, D.C.

Einhellig, F. A. 1995. Mechanism of Action of Allelochemicals in Allelopathy. pp. 96-116. *In: Allelopathy: Organisms, Processes, and Applications*, Inderjit, K.M.M. Dakshini, and F.A. Einhellig (eds.), ACS symposium Series NO.582, Am. Chem. Soc., Washington, D.C.

- Einhellig, F. A. 1993. Secrets of plants and people. pp. 275-287. *In: The Second Score: The Harrington Lecture Series, 1973-1992.* University of South Dakota Press, Vermillion, SD.
- Einhellig, F.A. 1989. Current status and future challenges in allelopathy. pp. 93-106. *In: Report on IFS (International Foundation for Science) Workshop on Chemical Interactions Between Organisms (Santiago, Chile).* IFS, Grev Turegatan 19, S-114 38 Stockholm, Sweden.
- Einhellig, F.A. 1989. Interactive effects of allelochemicals and environmental stress. pp. 101-116. *In Phytochemical Ecology: Allelochemicals, Mycotoxins and Insect Pheromones and Allomones*, Chou, C.H. and Waller, G.R. (eds.), Academia Sinica Monograph Series No. 9. Institute of Botany, Taipei.
- Einhellig, F.A. 1987. Interactions among allelochemicals and other stress factors of the plant environment. pp. 343-357. *In Symposium on Allelochemicals: Role in Agriculture and Forestry*, Waller, G.R. (ed.), ACS Symposium Series NO. 330, Am. Chem. Soc., Washington, D.C.
- Einhellig, F.A. 1986. Mechanisms and modes of action of allelochemicals. pp. 171-188. *In The Science of Allelopathy*, Putnam, A.R. and C.S. Tang (eds.), John Wiley and Sons, Inc.
- Leather, G.R. and F.A. Einhellig. 1986. Bioassays in the study of allelopathy. pp. 133-145. *In The Science of Allelopathy*, Putnam, A.R. and C.S. Tang (eds.), John Wiley and Sons, Inc.
- Einhellig, F.A. 1985. Effects of allelopathic chemicals on crop productivity. pp. 109-130. *In Bioregulators for Pest Control*, Hedin, P. (ed.), ACS Symposium Series NO. 276, Am. Chem. Soc., Washington, D.C.
- Einhellig, F.A., M., Stille Muth, and M.K. Schon. 1985. Effects of allelochemicals on plant-water relationships. pp. 179-195. *In The Chemistry of Allelopathy*, Thompson, A.C. (ed.), ACS Symposium Series NO. 268, Am. Chem. Soc., Washington, D.C.
- Leather, G.R. and F.A. Einhellig. 1985. Mechanisms of allelopathic action in bioassay. pp. 197-205. *In The Chemistry of Allelopathy*, Thompson, A.C. (ed.), ACS Symposium Series NO. 268, Am. Chem. Soc., Washington, D.C.
- Einhellig, F.A. 1984. Allelopathy--A natural protection, allelochemicals. pp. 161-200. *In Handbook of Natural Pesticides: Methods*, Vol. 1, Mandava, N.B. (ed.), CRC Press, Inc., Boca Raton, FL.

Reference Articles

- Einhellig, F.A. 2001. Allelopathy, p. 35, *In Plant Sciences*, Vol. 1, Macmillan Reference, Robinson, R. (ed.), New York: Macmillan.
- Einhellig, F.A. and J.A. Rasmussen. 2001. Plant-Plant Interactions, pp. 43-45, *In Plant Sciences*, Vol. 3, Macmillan Reference, Robinson, R. (ed.), New York: Macmillan.
- Einhellig, F.A. 1989. Allelopathy. pp. 4-7. *In 1990 McGraw-Hill Yearbook of Science and Technology*. Parker, S.P. (Editor-in-Chief), McGraw-Hill Book Company, NY.

Journal Papers (refereed)

- Barkosky, R.R. and F.A. Einhellig. 2003. Allelopathic interference of plant-water relationships by para-hydroxybenzoic acid. *Bot. Bull. Acad. Sinica* 44: 53-58.

- Nance, Jon R. and F.A. Einhellig. 2002. The natural environment under siege: A focus for the twenty-first century. *J. Public Affairs* VI: 61-77.
- Barkosky, R.R., F.A. Einhellig, and J.L. Butler. 2000. Caffeic acid-induced changes in plant-water relationships and photosynthesis in leafy spurge (*Euphorbia esula*). *J. Chem. Ecol.* 26: 2095-2109.
- Barkosky, R.R., J.L. Butler and F.A. Einhellig. 1999. Mechanisms of hydroquinone-induced growth reduction in leafy spurge (*Euphorbia esula* L.). *J. Chem. Ecol.* 25: 1611-1621.
- Einhellig, F.A. 1996. Interactions involving allelopathy in cropping systems. *Agron. J.* 88:886-893.
- Souza, I.F. and F.A. Einhellig. 1994. Potencial alelopatico de 2-benzoxazolinona (BOA) e sua interacao com atrazine no crescimento de plantas. *Plant Daninha* 12: 84-86. (in Portuguese)
- Hejl, A.M., F.A. Einhellig, and J.A. Rasmussen. 1993. Effects of juglone on growth, photosynthesis, and respiration. *J. Chem. Ecol.* 19: 559-568.
- Einhellig, F.A., J.A. Rasmussen, A.M. Hejl, and I.F. Souza. 1993. Effects of root exudate sorgoleone on photosynthesis. *J. Chem. Ecol.* 19: 369-375.
- Barkosky, R. and F.A. Einhellig. 1993. Effects of salicylic acid on plant-water relationships. *J. Chem. Ecol.* 19: 237-247.
- Einhellig, F.A. and I.F. Souza. 1992. Phytotoxicity of sorgoleone found in grain sorghum root exudates. *J. Chem. Ecol.* 18: 1-11.
- Rasmussen, J.A., A.M. Hejl, F.A. Einhellig, and J.A. Thomas. 1992. Sorgoleone from root exudate inhibits mitochondrial functions. *J. Chem. Ecol.* 18: 197-207.
- Bortnem, R., A. Boe, and F. Einhellig. 1992. Alfalfa emergence following interseeding into existing alfalfa stands. pp. 6-10. *In* Proceeding of the Fourth Annual Forage and Grassland Conference (April: Grand Rapids, Michigan). American Forage and Grassland Council, Georgetown, TX.
- Einhellig, F.A. 1991. Impacts of natural phytotoxic compounds in agriculture. pp. 23-29. *In* Proceeding of the 1991 Dairy/Forage Conference, Cooperative Extensive Service, South Dakota State Univ., Brookings, SD.
- Bortnem, R., A. Boe, and F.A. Einhellig. 1990. Stand establishment and production of alfalfa cultivars in legume residues. pp. 314-318. *In* Proceedings of the 1990 American Forage and Grassland Conference (June: Blacksburg, VA.). American Forage and Grassland Council, Georgetown, TX.
- Einhellig, F.A. and A. Boe. 1990. Soybean production when co-planted with rye. *Proc. S. Dak. Acad. Sci.* 69: 34-44.
- Einhellig, F.A. and J.A. Rasmussen. 1989. Prior cropping with grain sorghum inhibits weeds. *J. Chem. Ecol.* 15: 951-960.
- Einhellig, F.A. and G.R. Leather. 1988. Potentials for exploiting allelopathy to enhance crop production. *J. Chem. Ecol.* 14: 1827-1842.
- Leather, G.R. and F.A. Einhellig. 1988. Bioassay of naturally occurring compounds for phytotoxicity.

- J. Chem. Ecol. 14: 1821-1828.
- Ramirez Toro, G.I., G.R. Leather, and F.A. Einhellig. 1988. The effects of three phenolic compounds on *Lemna gibba* G3. J. Chem. Ecol. 14: 845-853.
- Kobza, J. and F.A. Einhellig. 1987. The effects of ferulic acid on the mineral nutrition of grain sorghum. Plant Soil 98: 99-109
- Einhellig, F.A., G.R. Leather, and L.L. Hobbs. 1985. Use of *Lemna minor* L. as a bioassay in allelopathy. J. Chem. Ecol. 11: 65-72.
- Einhellig, F.A. and P.C. Eckrich. 1984. Interactions of temperature and ferulic acid stress on grain sorghum and soybeans. J. Chem. Ecol. 10: 161-170.
- Einhellig, F.A., M.K. Schon, and J.A. Rasmussen. 1982. Synergistic inhibitory effects of four cinnamic acid compounds on grain sorghum. J. Plant Growth Reg. 1: 251-258.
- Einhellig, F.A. and M.K. Schon. 1982. Noncompetitive effects of *Kochia scoparia* on grain sorghum and soybeans. Can. J. Bot. 60: 2923-2930.
- Schon, M.K. and F.A. Einhellig. 1982. Allelopathic effects of cultivated sunflower on grain sorghum. Bot. Gaz. 143: 505-510.
- Einhellig, F.A. and L.S. Nelson. 1982. Effects of ferulic and *p*-coumaric acid addition to soil on grain sorghum. Proc. S. Dak. Acad. Sci. 61: 127-133.
- Einhellig, F.A. 1981. Allelopathic chemicals in crop regulation. Proc. Plant Growth Reg. Soc. Am. 8: 40-51.
- Colton, C.E. and F.A. Einhellig. 1980. Allelopathic mechanisms of velvetleaf (*Abutilon theophrasti* Medic., Malvaceae) on soybean. Am. J. Bot. 67: 1407-1413.
- Dillon, R.D., F.A. Einhellig, and R.F. Mulfinger. 1980. Growth and respiration rates of *Paramecium multimicronucleatum* cultured with *p*-coumaric and chlorogenic acids. Proc. S. Dak. Acad. Sci. 59: 166-174.
- Einhellig, F.A. and J.A. Rasmussen. 1979. Effects of three phenolic acids on chlorophyll content and growth of soybean and grain sorghum seedlings. J. Chem. Ecol. 5: 815-824.
- Rasmussen, J.A. and F.A. Einhellig. 1979. Allelochemic effects of leaf extracts of *Ambrosia trifida* (Compositae). Southwestern Naturalists 24: 637-644.
- Rasmussen, J.A. and F.A. Einhellig. 1979. Inhibitory effects of combinations of three phenolic acids on grain sorghum germination. Pl. Sci. Lett. 14: 69-74.
- Einhellig, F.A. and J.A. Rasmussen. 1978. Synergistic inhibitory effects of vanillic and *p*-hydroxybenzoic acids on radish and grain sorghum. J. Chem. Ecol. 4: 425-436.
- Egge, P.R., M.H. Peaslee, and F.A. Einhellig. 1978. Tannic acid-induced dissociation of pituitary melanocyte-stimulating hormone and adrenocorticotrophic hormone levels. Gen.Pharmacology 9:33-35
- Rasmussen, J.A. and F.A. Einhellig. 1977. Synergistic inhibitory effects of *p*-coumaric and ferulic acids on germination and growth of grain sorghum. J. Chem. Ecol. 3: 197-205.

- Peaslee, M.H. and F.A. Einhellig. 1977. Protective effect of tannic acid in mice receiving dietary lead. *Experientia* 33: 1206.
- Rasmussen, J.A. and F.A. Einhellig. 1975. Noncompetitive effect of common milkweed, *Asclepias syriaca* L., on germination and growth of grain sorghum. *Am. Midl. Nat.* 94: 478-483.
- Einhellig, F.A. 1974. Effect of light on plant growth. *Am. Biol. Teacher* 36:539-540; 556.
- Peaslee, M.H. and F.A. Einhellig. 1974. Observing the events of mammalian development with mice. *Am. Biol. Teacher* 36: 412-413; 439.
- Peaslee, M.H. and F.A. Einhellig. 1974. Frog skin darkening mediated by selected plant phenolic compounds. *Proc. S. Dak. Acad. Sci.* 53:196-201.
- Peaslee, M.H. and F.A. Einhellig. 1973. Reduced fecundity in mice on tannic acid diet. *Comp. Gen. Pharmac.* 4: 393-397.
- Einhellig, F.A. and J.A. Rasmussen. 1973. Allelopathic effects of *Rumex crispus* on *Amaranthus retroflexus*, grain sorghum and field corn. *Am. Midl. Natur.* 90: 79-86.
- Peaslee, M.H. and F.A. Einhellig. 1973. Tannic acid-induced alterations in mouse growth and pituitary melanocyte-stimulating hormone activity. *Toxicol. Appl. Pharmacol.* 25: 507-514.
- Kreber, R.A. and F.A. Einhellig. 1972. Effects of tannic acid on *Drosophila* larval salivary gland cells. *J. Insect Physiol.* 18: 1089-1096.
- Einhellig, F.A. 1972. Investigations on stomata. *Sch. Sci. and Math LXII*: 631-633.
- Kreber, R.A. and F.A. Einhellig. 1972. Effects of pilocarpine on *Drosophila* larval salivary gland cells. *Comp. Gen. Pharmac.* 3: 187-190.
- Einhellig, F.A. 1971. Effects of tannic acid on growth and stomatal aperture in tobacco. *Proc. S. Dak. Acad. Sci.* 50: 205-209.
- Einhellig, F.A. and L. Y. Kuan. 1971. Effects of scopoletin and chlorogenic acid on stomatal aperture in tobacco and sunflower. *Bull. Torrey Bot. Club.* 98: 155-162.
- Kreber, R.A. and F.A. Einhellig. 1971. Effects of thioacetamide on *Drosophila* larval salivary gland cells. *Proc. S. Dak. Acad. Sci.* 50: 138-142.
- Sprague, W.R. and F.A. Einhellig. 1971. Technique for obtaining slime molds. *Am. Biol. Teacher* 33:359-360.
- Watson, M.D. and F.A. Einhellig. 1971. The life light. *Science and Children* 9: 19.
- Einhellig, F.A., E.L. Rice, P.G. Risser, and S.H. Wender. 1970. Effects of scopoletin on growth, CO₂ exchange rates, and concentration of scopoletin, scopolin, and chlorogenic acids in tobacco, sunflower and pigweed. *Bull. Torrey Bot. Club.* 97:22-33.

Other Scholarly Reports and Publications

- Einhellig, F.A. 2010. Intellectual Property. Proceedings of the 66th Annual Meeting of the Midwestern Association of Graduate School. <http://www.mags-net.org/66annualproceedings.htm>.

- Einhellig, F.A. 1991. Secrets of plants and people. University of South Dakota Harrington Lecture Series. 19 p.
- Einhellig, F.A. 1988. Mechanisms of action and environmental interactions of allelochemicals. U.S. Army Engineer Waterways Experiment Station, Allelopathy Technology Technical Report.
- Einhellig, F.A. 1983. Efficiency of water use by crops under allelopathy stress. Completion Report Project B-061 SDAK, 14-34-000100248, U.S. Dept. Interior, Water Resources. 71 p.
- Einhellig, F.A. 1969. Effects of scopoletin on growth, CO₂ exchange rates, and concentration of scopoletin, scopolin, and chlorogenic acids in tobacco, sunflower and pigweed. Ph.D. Dissertation, Univ. Okla. (Order No. 69-17, 821), Univ. Microfilms, Ann Arbor, Mich. (Diss. Abstr. 30:2048-B)
- Outline Course of Study in General Science. 1964. Shawnee Mission High School District, Shawnee Mission, Kansas. (with committee). Printed and Sold by District Office.
- Outline Course of Study in Earth Science. 1963. Shawnee Mission High School District, Shawnee Mission, Kansas. (with committee). Printed and Sold by District Office.

Proceedings Editor

- Einhellig, F. A. (Ed.) 2009. Proceedings of the 65th Annual Meeting of the Midwestern Association of Graduate Schools—*Transitions in Graduate Education: Leading Through Change*. 55 p.
<http://www.MAGS-net.org/documents/Proceedings2009.pdf>
- Einhellig, F.A. (Ed.) 2008. Proceedings of the 64th Annual Meeting of the Midwestern Association of Graduate Schools: *Great Expectations—Managing the Graduate School's Roles and Responsibilities*. 78 p. <http://www.MAGS-net.org/documents/Proceedings2008.pdf>
- Einhellig, F.A. (Ed.) 2000. Proceedings of the 56th Annual Meeting of the Midwestern Association of Graduate Schools—*Graduate Education 2000: Beyond the Ivory Tower*. 142 p.
- Einhellig, F.A. (Ed.) 1999. Proceedings of the 55th Annual Meeting of the Midwestern Association of Graduate Schools—*The Broadening Scope of Graduate Education*. 204 p.
- Einhellig, F.A. (Ed.) 1998. Proceedings of the 54th Annual Meeting of the Midwestern Association of Graduate Schools 154 p.
- Einhellig, F.A. (Ed.) 1997. Proceedings of the 53rd Annual Meeting of the Midwestern Association of Graduate Schools—*Education, Technology, and Change: Impact of Technology on Graduate Education*. 146 p.

Laboratory and Instruction Manuals (Locally Produced)

- Einhellig, F. A. 2010 Edition, Plant Physiology, Biology 544 and 644 Labs, 76 p.
- Einhellig, F.A. 2007, Edition, Plant Physiology, Biology 544 and 644 Labs, 80 p.
- Einhellig, F.A. 2005 and 2004 Editions. Plant Physiology, BIO 544 Labs, 79 p.
- Einhellig, F.A. 2003 Edition. Plant Physiology, Biology 544 Labs, 81 p.
- Einhellig, F.A. 2002 Edition. Plant Physiology, Biology 544 Labs., 84 p.
- Einhellig, F.A. 1990. GENE WORK, 4th Edition, 61 p.
- Einhellig, F.A. 1989. GENE WORK, 3rd Edition, 59 p.
- Einhellig, F.A. 1989 Edition. Plant Physiology Lab., 71 p.

- Einhellig, F.A. 1988. GENE WORK, 2nd Edition, 52 p.
 Einhellig, F.A. 1988. Plant Physiology Lab., 68 p.
 Einhellig, F.A. 1987. GENE WORK, 1st Edition, 42 p.

Published Book Reviews

1984. Journal of College Science Teaching. XIII(4): 473-474.
 1974. Bios. XLV(4): 181-182.
 1973. Journal of College Science Teaching. II(4): 56-57.

Abstracts Published

- Remley, M. and F.A. Einhellig. 2005. Effects of boron and para-hydroxybenzoic acid (pHBA) on velvetleaf. Trans. Missouri Acad. Sci. 39.
- McClain, W. and F.A. Einhellig. 2002. The combination of light and allelopathic effects on soybean seedlings. Trans. Missouri Acad. Sci. 36.
- Waller, G.R. and F.A. Einhellig. 1998. Overview of allelopathy in agriculture, forestry, and ecology. p. 175
In: Abstracts, IX Pacific Inter-Congress: Sustainable Development in the Pacific (Nov. 1998, Taipei, ROC), Academia Sinica, Taipei, ROC.
- Einhellig, F.A. 1996. The physiology of allelopathic inhibition. pp.6-7. *In: Program Abstracts, Reunion Internacional de Ecologia Quimica (Oaxtepec, Morelos, Mexico, Nov. 4-7, 1996).*
- Einhellig, F.A. 1996. Physiology and mechanisms of action in allelopathy. Meeting Program, First World Congress on Allelopathy. (Sept. 1996, Cadiz, Spain)
- Kaps, M.L. and F.A. Einhellig. 1996. Ground cover for weed suppression in an apple orchard. Trans. Missouri Acad. Sci. 30: 94.
- Einhellig, F.A. 1994. Interactions involving allelopathy in cropping systems. (Amer. Soc. Agronomy/ Crop Sci. Soc. Amer./ Soil Sci. Soc. Amer. Combined Annual Meetings, Nov. 1994, Seattle, Washington).
- Einhellig, F.A. 1993. Mechanism of action of allelochemicals in allelopathy. (AIBS Meetings, Aug. 1993, Ames, IA; Abstract No. 300). Supplement to Am. J. Bot. 80(6): 102.
- Barkosky, R. R. and F.A. Einhellig. 1993. Effects of a combination of three phenolics on plant water status of soybean [*Glycine max* (L.) Merr.]. Eighth Annual Penn State Symposium in Plant Physiology, Plant Signals in Interactions with Other Organisms. Meeting Abstracts. (May 1993)
- Hejl, A.M., S. Quah, F.A. Einhellig, and J.A. Rasmussen. 1993. Effect of sorgoleone and juglone on functions of isolated chloroplasts and mitochondria. Eighth Annual Penn State Symposium in Plant Physiology, Plant Signals in Interactions with Other Organisms. Meeting Abstracts. (May 1993)
- Hejl, A.M., T. Bormann, K.L. Koster, and F.A. Einhellig. 1993. Effects of six sesquiterpene lactones on oxygen uptake in isolated mitochondria and oxygen evolution in isolated chloroplasts. Plant Physiol. 102(S): 114.
- Barkosky, R. R. and F.A. Einhellig. 1993. Effect of a simple phenol on plant water relationships of soybean [*Glycine max* (L.) Merr.]. Plant Physiol. 102(S): 155.

- Einhellig, F.A., S.D. Cole, and G.R. Leather. 1993. Allelochemical activity from *Crotalaria juncea* inhibits leafy spurge and several other weeds. Southwestern Assoc. Naturalists(Springfield, MO: April 1993).
- Rasmussen, J.A., F.A. Einhellig, and A.M. Hejl. 1993. Juglone allelopathy--The Walnut Grove Revisited. Southwestern Assoc. Naturalists (Springfield, MO: April 1993).
- Rasmussen, J.A., F.A. Einhellig, and A.M. Hejl. 1993. Effects of selected allelochemicals on isolated mitochondria and chloroplasts. Southwestern Assoc. Naturalists (Springfield, MO: April 1993).
- Einhellig, F.A. 1992. Inhibitory mechanisms and mode of action of allelopathic chemicals from *Sorghum*. Program, p. 17, 9th Annual Meeting of the Int. Soc. Chemical Ecology. (Kyoto, Japan; July 1992)
- Einhellig, F.A. 1992. Insights into the physiology of allelopathy: Energy and Water Relationships. Program: p. 8-9, ERATO Symposium on Plant Ecochemicals. (Hokkaido Univ., Sapparo, Japan; July 1992)
- Quah, S., F.A. Einhellig, and T. Boreman. 1992. Effects of salicylic acid, gentisic acid and *p*-hydroxybenzaldehyde on soybean mitochondria. Proc. S. Dak. Acad. Sci. 71: 139.
- Hejl, A.M., S. Quah, and F.A. Einhellig. 1992. Effects of juglone on the functions of isolated mitochondria and chloroplasts. Proc. S. Dak. Acad. Sci. 71: 136.
- Hickens, T., F.A. Einhellig, and A. Hejl. 1992. Inhibitory effects of selected flavonoids on CO₂-dependent oxygen evolution. Proc. S. Dak. Acad. Sci. 71: 137.
- Einhellig, F.A. and A. Boe. 1992. Weed control in soybean by fall planted winter rye. Proc. S. Dak. Acad. Sci. 71:138.
- Einhellig, F.A. 1991. Control of weeds by allelopathy: Potentials and problems. Abstracts of the XII International Plant Protection Congress. (Rio de Janeiro, Brazil; August 1991).
- Rasmussen, J.A., A.M. Hejl, and F.A. Einhellig. 1991. Effects of sorgoleone on plant mitochondrial respiration. Abstracts of the Phytochemical Soc. N. Am. 31st Annual Meeting. (Fort Collins, CO; June 1991).
- Einhellig, F.A., M.J. Haar, and N.H. Fischer. 1991. Allelopathic potential of sesquiterpene lactones. Abstracts of the Phytochemical Soc. of N. Am. 31st Annual Meeting. (Fort Collins, CO; June, 1991).
- Einhellig, F.A., S.D. Cole, and G.R. Leather. 1991. Biological control of leafy spurge. Proc. S. Dak. Acad. Sci. 70: 214-215.
- Cole, S.D., F.A. Einhellig, and G.R. Leather. 1991. Inhibitory effects of *Crotalaria juncea* seed extract on weeds. Proc. S. Dak. Acad. Sci. 70: 215.
- Hejl, A.M., F.A. Einhellig, J.A. Rasmussen, and J.A. Thomas. 1991. Effects of sorgoleone on respiration in isolated corn and soybean mitochondria. Proc. S. Dak. Acad. Sci. 70: 216-217.
- Pierret, N., J.A. Thomas, and F.A. Einhellig. 1991. Inhibition of respiration in rat liver mitochondria by the plant compound sorgoleone. Proc. S. Dak. Acad. Sci. 70: 215.
- Cole, S.D., F.A. Einhellig, and G.R. Leather. 1991. Allelopathic effects of *Crotalaria juncea* and sorghum Root exudate on leafy spurge. pp. 4-5. Abstract of the Leafy Spurge Control-Coordination/Planning Meeting, Minneapolis, MN (April 22-25, 1991)

- Cole, S.D., F.A. Einhellig, and G.R. Leather. 1991. Allelopathic effects of sunnhemp (*Crotalaria juncea*) Seed extract. Fourth Annual USD Graduate Science Research Forum. Abstract 14. USD Publication. Vermillion, SD.
- Hejl, A.M., F.A. Einhellig, J.A. Rasmussen, and J.A. Thomas. 1991. Inhibition of plant mitochondrial respiration by sorgoleone. Fourth Annual USD Graduate Science Research Forum. Abstract 2. USD Publication. Vermillion, SD.
- Einhellig, F.A., I.F. Souza, and M.J. Haar. 1990. Inhibition of growth and photosynthesis by sorgoleone. p. 31. Abstracts of 1990 joint meetings of the International Society of Chemical Ecology and The Phytochemical Society of North America (Quebec City, Canada; August, 1990).
- Souza, I.F. and F.A. Einhellig. 1990. Allelopathic potential of benzoxazolinone (BOA) and interactions with atrazine on plant growth. Proc. S. Dak. Acad. Sci. 69: 170.
- Haar, M. J. and F.A. Einhellig. 1990. Allelopathic effects of several sesquiterpene lactones. Proc. S. Dak. Acad. Sci. 69: 177.
- Einhellig, F.A., I.F. Souza, and M.J. Haar. 1990. Effects of sorgoleone on plant growth and photosynthesis. Proc. S. Dak. Acad. Sci. 69: 171.
- Cole, S.D. and F.A. Einhellig. 1990. Effects of phenolic acids, flavonoids, and sesquiterpene lactones on adventitious root formation. Proc. S. Dak. Acad. Sci. 69: 191.
- Haar, M.J. and F.A. Einhellig. 1990. Allelopathic effects of ten sesquiterpene lactones. Third Annual USD Graduate Science Research Forum. Abstract No. 17. USD Publication, Vermillion, SD.
- Cole, S.D. and F.A. Einhellig. 1990. Effects of allelochemicals on adventitious root formation in cuttings of *Phaseolus aureus*. Third Annual USD Graduate Science Research Forum. Abs. No 4. USD Publication. Vermillion, SD.
- Einhellig, F.A. 1989. Insights into the mode of action of phenolic allelochemicals from carbon isotope discrimination. 1989 International Chemical Congress of Pacific Basin Societies (PACHEM89). Honolulu, Hawaii; December, 1989). Abstract AGRO 01.198.
- Einhellig, F. A. 1989. Current status and future challenges in allelopathy. International Foundation for Science (IFS) Workshop on Chemical Interactions Between Organisms.(Santiago, Chile; November, 1989), p. 19.
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- Einhellig, F.A. 1988. Interactive effects of allelochemicals and environmental stress. Program and Abstracts of the Symposium on Phytochemical Ecology: Allelochemicals, Mycotoxins, and Insect Pheromones and Allomones, Academia Sinica, Taipei, Taiwan (December, 1988), p. 22.
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- Rasmussen, J.A. and F.A. Einhellig. 1988. Efficacy of *Sorghum bicolor* in controlling weeds. Proc. S. Dak. Acad. Sci. 67:121.
- Barkosky, R.R. and F. A. Einhellig. 1988. Effects of three allelochemicals on the water status of soybean seedlings. Proc. S. Dak. Acad. Sci. 67: 124.
- Barkosky, R.R. and F.A. Einhellig. 1988. Investigations on the mechanisms of action of salicylic acid. Second Annual USD Graduate Science Research Forum. Abs. No. 16. Vermillion, SD.
- Einhellig, F.A. 1987. Complementary action between allelochemicals and herbicides. XIV International Botanical Congress. Meeting Distribution: SIGMA 31, Frontiers in Allelopathy.
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- Leather, G.R. and F.A. Einhellig. 1987. The bioassay of naturally occurring compounds for phytotoxicity. Abstracts of the Fourth Annual Meeting, Int. Soc. Chem. Ecology (Hull, England; July, 1987) p. 15.
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- Wegher, B. and F.A. Einhellig. 1986. Interactive effects of low concentrations of alachlor and two phenolic acids on growth of *Sorghum bicolor*. Proc. S. Dak. Acad. Sci. 65: 136.
- Einhellig, F.A., P.F. Nyberg, and G.R. Leather. 1985. Effects of allelopathic chemicals on photosynthetic Rate in *Lemna minor*. Abstracts of the Second Annual Meeting, Int. Soc. Chem. Ecology Madison, WI, June, 1985) p. 13.
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- Einhellig, F.A. 1985. Interactions among allelopathic chemicals and other stress factors of the plant environment. Abstracts 190th Natl. Meeting, Am. Chem. Soc., (Chicago, ILL., Sept.) AGFD 204.
- Leather, G.R. and F.A. Einhellig. 1985. Uptake and distribution of ¹⁴C-salicylic acid in sorghum seedlings. Abstracts 190th Natl. Meeting, Am. Chem. Soc., (Chicago, ILL., Sept.) AGFD 096.
- Leather, G.R. and F.A. Einhellig. 1984. Evaluation of allelochemical action in *Lemna* bioassays. 1984 International Chem. Congress of Pacific Basin Societies, (Honolulu, Hawaii, Dec.) Abstract No. 02F05.
- Einhellig, F.A. 1984. Assessment of the concert action of allelochemicals and their interactions with other stress factors. 1984 International Chem. Congress of Pacific Basin Societies, (Honolulu, Hawaii, Dec.) Abstract No. 02F03.
- Einhellig, F.A. 1984. Effects of allelopathic chemicals on crop productivity. Abstracts of Am. Chem. Soc., Division of Pesticide Chemistry, Special Conference II: New Concepts in Pesticide Chemistry.
- Einhellig, F.A. and G.R. Leather. 1984. Allelochemical detection using *Lemna minor* L. Proc. S. Dak. Acad. Sci. 63: 108.

- Einhellig, F.A. 1984. Effects of allelochemicals on plant-water relationships. Abstracts 187th Natl. Meeting, Am. Chem. Soc., (St. Louis, Mo., April) Division of Pesticide Chemistry, Abstract No. 67.
- Leather, G.R. and F.A. Einhellig. 1984. Mechanisms of allelopathic action in bioassay. Abstracts 187th Natl. Meeting, Am. Chem. Soc., (St. Louis, Mo., April) Div. of Pesticide Chemistry, Abstract No. 61.
- Einhellig, F.A. 1983. Mode of action of allelochemicals. Annual Meeting Crop Science Soc. Am., (Washington, DC, August), p. 90.
- Schon, M.K. and F.A. Einhellig. 1982. Allelopathic effects of common cocklebur on grain sorghum and soybeans. Proc. S. Dak. Acad. Sci. 61: 166.
- Schon, M.K. and F.A. Einhellig. 1981. Allelopathic effects of cultivated sunflower on grain sorghum. Proc. S. Dak. Acad. Sci. 60: 171-172.
- Kobza, J. and F. A. Einhellig. 1980. Effects of ferulic acid on mineral nutrition of sorghum. Plant Physiol. 65(6):151.
- Einhellig, F.A. and M. Stille Muth. 1980. Ferulic acid interference with water metabolism in grain sorghum. S. Dak. Acad. Sci. 59: 276.
- Einhellig, F.A. and M. L. Stille. 1979. Effects of ferulic and *p*-coumaric acids on plant water status. Bot. Soc. Am. Misc. Pub. 157: 40-41.
- Colton, C.E. and F.A. Einhellig. 1978. Allelopathic effects of *Abutilon theophrasti* Medic. on soybean and grain sorghum. Proc. S. Dak. Acad. Sci. 57: 176-177.
- McNeil, T. and F.A. Einhellig. 1978. Allelopathic effects of *Conyza canadensis* (L.) Cron. on growth and water relationships of grain sorghum. Proc. S. Dak. Acad. Sci. 57: 177-178.
- Einhellig, F.A. and J.A. Rasmussen. 1976. Allelopathic effects of *Kochia scoparia* (L.) Schrad. on grain sorghum. Proc. S. Dak. Acad. Sci. 55: 189.
- Peaslee, M.H. and F.A. Einhellig. 1976. Protective effect of tannic acid in mice receiving dietary lead. Proc. S. Dak. Sci. 55: 190.
- Peaslee, M.H., F. A. Einhellig, and P.R. Egge. 1976. Reduced activity in mice fed tannic acid. Am. Zool. 16(2): 234.
- Egge, P.R., M.H. Peaslee, and F.A. Einhellig. 1976. Pituitary MSH/ACTH levels in tannic acid-fed mice. Proc. S. Dak. Acad. Sci. 55: 191.
- Rasmussen, J.A. and F.A. Einhellig. 1973. Allelopathic effects of common milkweed on grain sorghum. Proc. S. Dak. Acad. Sci. 52: 271-272.
- Einhellig, F.A. and M.H. Peaslee. 1973. Influence of tannic acid on mouse reproduction. Proc. S. Dak. Acad. Sci. 52: 263.
- Einhellig, F.A. and J.A. Rasmussen. 1972. Interplant influences of *Rumex crispus*. Proc. S. Dak. Acad. Sci. 51: 265-266.
- Peaslee, M.H. and F.A. Einhellig. 1972. Effects of feeding tannic acid on morphological and hormonal parameters in male mice. Proc. S. Dak. Acad. Sci. 51: 262.

Einhellig, F.A. 1970. Effects of scopoletin on growth, photosynthesis and respiration in tobacco, sunflower and pigweed. *Proc. S. Dak. Acad. Sci.* 49 (by title).

Kuan, L. Y. and F.A. Einhellig. 1970. Effects of scopoletin and chlorogenic acid on stomatal aperture in tobacco. *Proc. S. Dak. Acad. Sci.* 49 (by title).

9. INVITED SYMPOSIUM PAPERS AT NATIONAL AND INTERNATIONAL MEETINGS

"Some Mechanisms of Action of Toxins Involved in allelopathy" (Aug. 1977). *Symposium on Allelopathy*, Physiology Section of the Botanical Society of America, AIBS Meetings, East Lansing, MI

"Allelopathic Chemicals in Crop Regulation" (Aug. 1981). Symposium on *Natural Products in Plant Growth*, 8th Annual Meeting of the Pl. Growth Regulators Soc. Am., St. Petersburg Beach, FL.

"Mode of Action of Allelochemicals" (Aug. 1983). Symposium on *Plant Allelopathy and Autotoxicity*, crop Science Soc. Am. Annual Meeting (jointly with Am. Soc. Agron. and Soil Sci. Soc. Am.), Washington, D.C.

"Effects of Allelochemicals on Plant-Water Relationships" (April 1984). Symposium on *The Chemistry of Allelopathy*. 187th Am. Chem. Soc. National Meetings, St. Louis, MO.

"Mechanisms of Allelopathic Action in Bioassay" (April 1984). Symposium on *The Chemistry of Allelopathy*, 187th Am. Chem. Soc. Nat. Meeting, St. Louis, MO.

"Effects of Allelochemicals on Crop Productivity" (June 1984). Div. of Pesticide Chem. Special Conference II: *New Concepts in Pesticide Chemistry*, Snowbird, UT.

"Assessment of the Concert Action of Allelochemicals and Their Interactions with Other Stress Factors" (Dec. 1984). *Symposium on Allelopathy*. International Chem. Congress of Pacific Basin Societies, Honolulu, HA.

"Use of *Lemna minor* L. as a Bioassay in Allelopathy" (Dec. 1984). *Symposium on Allelopathy*. International Chemistry Congress of Pacific Basin Societies, Honolulu, HA.

"Interaction Among Allelopathic Chemicals and Other Stress Factors of the Plant Environment" (Sept. 1985). Symposium on *Allelochemicals: Role in Agriculture, Forestry, and Ecology*. 190th Am. Chem. Soc. National Meeting, Chicago, ILL.

"Potentials for Exploiting Allelopathy to Enhance Crop Production" (July 1987). *Symposium on Applications of Chemicals in Ecology*. Fourth Annual Meeting of the International Society of Chemical Ecology, Hull, England.

"Complementary Action Between Allelochemicals and Herbicides: Perspectives for Agriculture" (July 1987). Symposium on *Applied Frontiers of Allelopathy*. XIV International Botanical Congress, Berlin (West), Germany.

"Mechanisms of Action and Environmental Interaction of Allelochemicals" (Sept. 1987). *Allelopathy Symposium/Technology Meeting*, USAE Waterways Experiment Station, Vicksburg, MS.

"Interactive Effects of Allelochemicals and Environmental Stresses" (Dec. 1988). *Symposium on*

Phytochemical Ecology: Allelochemicals, Mycotoxins, and Pheromones. Sponsored by NSF and Taiwan National Science Council. Taipei, Taiwan.

"Current Status and Future Challenges in Allelopathy" (Nov. 1989). Workshop on *Chemical Interactions Between Organisms*, sponsored by the International Foundation for Science and The International Program in the Chemical Sciences. Santiago, Chile.

"Insights Into the Mode of Action of Phenolic Allelochemicals from Carbon Isotope Discrimination" (Dec. 1989). International Chemical Congress of Pacific Basin Societies (PACHEM89). Honolulu, Hawaii.

"Control of Weeds by Allelopathy: Potentials and Problems." (Aug. 1991). XII International Plant Protection Congress. Rio de Janeiro, Brazil.

"Allelopathy and Plant Stress: An Integrated View" (Aug. 1991). *Seminar on Allelopathy*, Centro de Convenções Da Esal, Lavras, MG, Brazil.

"Insights into the Action of Allelopathic Chemicals." (Aug. 1991) *Seminar on Allelopathy*, Centro de Convenções Da Esal, Lavras, MG, Brazil.

"Insights Into the Physiology of Allelopathy: Energy and Water Relationships." (July 1992). *ERATO Symposium on Plant Ecochemicals*, Hokkaido University, Sapporo, Japan.

"Inhibitory Mechanisms and Mode of Action of Allelopathic Chemicals from Sorghum." (July 1992). 9th Annual Meeting of International Soc. of Chemical Ecology. Kyoto, Japan.

"Mechanism of Action of Allelochemicals in Allelopathy." (Aug. 1993). Botanical Society of America Section of the 44th Annual American Institute of Biological Sciences meetings, Ames, Iowa.

"Interactions Involving Allelopathy in Cropping Systems." (Nov. 1994). 86th Annual Meeting, Am. Soc. Agronomy; Crop Sci. Soc. Am.; Soil Sci. Soc. Am., Seattle, WA.

"Plant x Plant Allelopathy: Biosynthesis and Mechanism of Action." (July 1995). V Congresso Brasileiro De Fisiologia Vegetal. Lavras, Brazil

"Physiology and Mechanisms of Action in Allelopathy." (Sept. 1996). Plenary Speaker, First World Congress on Allelopathy, Cadiz, Spain.

"The physiology of allelopathic inhibition." (Nov. 1996). Reunion Internacional de Ecologia Quimica, Oaxtepec, Morelos, Mexico.

"Mechanism of Action Studies in Allelopathy." (Aug. 1999). Second World Congress on Allelopathy: Critical Analysis and Future Prospects, Lakehead University, Thunderbay, Canada.

"Building Scholarship in Master's Education: Actions, Challenges and Barriers." (with co-presenter, H. Berman) Dec. 2000. Council of Graduate Schools Annual Meeting, New Orleans, MI.

"The Physiology of Allelopathy." Plenary Session (June 2001). *First European Allelopathy Symposium: Physiological Aspects of Allelopathy*. Vigo, Spain.

"Mechanism of Action of Allelochemicals." Plenary Session (June 2001). *First European Allelopathy Symposium: Physiological Aspects of Allelopathy*. Vigo, Spain.

"Intellectual Property." (April 2010). Midwestern Association of Graduate Schools Annual Meeting.

Milwaukee, WI.

10. OTHER PROFESSIONAL ACTIVITIES

Membership in Professional Societies

- Phi Delta Kappa
- Phi Kappa Phi
- Phi Delta Kappa
- Golden Key
- International Society of Chemical Ecologists (Charter & Life)
- Weed Science Society of America
- Sigma Xi, The Scientific Research Society
- Missouri Academy of Science
- Council of Graduate Schools (Institutional Member)
- Midwestern Association of Graduate Schools (Institutional Member)
- National Council of University Research Administrators (NCURA)

Manuscript and Proposal Reviewing

- Acta Physiologiae Plantarum, 2011 – present (regular reviews)
- Journal of Chemical Ecology, 1978 – present (several each year)
- Occasional Manuscripts reviewed (year of first review noted): Bulletin of Torrey Botanical Club, 1973 – present; Botanical Gazette, 1981; Forest Science, 1987; Weed Technology, 1996; Plant and Soil, 1999; Academic Sinica, 2001; Canadian Journal of Botany, 2001; Allelopathy Journal, 2007; Chemoecology, 2008; South Dakota Acad. of Science, Terrestrial Biol. Section, 1975-92.
- American Chemical Society, Allelopathy and Natural Products Symposium Manuscripts, 1984, 1985, 1988, 1994.
- Papers for International meeting on Rice Allelopathy, 1997.
- Phytochemical Analysis (An Int. J. of Plant Chemicals), 1997
- NSF Proposals: Science Education Programs; Physiological Ecology Section Research Proposals; Cooperative Science Exchange Program, US-Japan, 1984
- External Examiner for Ph.D. Dissertations
 - o University of Punjab, Lahore, Pakistan: 1989
 - o University of New England, Armidale, NSW, Australia: Two in 1991
 - o University of Missouri, 1995

Participation in National/Regional Meetings (Not included above)

- 2007 Bio International Convention (May 2007, Boston)
- Council of Graduate Schools annual meeting in December: 1996 (San Francisco); 1997 (Washington, D.C.); 1998 (Vancouver, B C); 1999 (Washington, D.C.) 2000, (New Orleans); 2001 (Washington, D.C.); 2002 (San Diego); 2009 (San Francisco); 2010 (Washington, D.C.).
- National Council University Research Administrators annual meeting in November: 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000. (Washington, D.C).
- AAHE Conf. on Faculty Roles and Rewards, Jan. 1995 (Phoenix); Jan. 1996 (Atlanta); Jan. 1997 (San Diego).
- Midwest Association of Graduate Schools, April 1993, 1994, 1997, 1998, 1999, 2000, 2001, 2002 (Chicago); 2001 (St. Louis), 2003 (Minneapolis), 2004 (St. Louis); 2005 (Kansas City), 2006 (Chicago), 2007 (Indianapolis); 2008 (St. Louis); 2009 (Kansas City); 2011 (Milwaukee).
- AASCU-Office of Federal Programs Liaison Officer's meeting, Oct. 1992; 1995. Washington, D.C.
- Missouri Life Science Summit: July: 2001, 2002, 2003, Osage Beach, MO
- Missouri Academy of Science: 1994-97; 2001, 2002; 2005; Papers presented in 1996; 2001; 2002; 2005.

- PRIMER-ARENA Conference (Public Responsibility in Medical Research/Applied Research Ethics National Association), San Diego, March, 2005.
- Southwestern Association of Naturalists: Two papers, 1993, Springfield, MO.
- Phytochemical Society of North America 31st Annual Meeting, 1991. Fort Collins, CO. Papers presented.
- Terrestrial Plant Testing Workshop, EPA, Corvallis, OR. 1990. Summary session moderator.
- International Society of Chemical Ecology and Phytochemical Society of North America, joint meetings, 1990. Quebec City, Canada. Paper presented.
- Mid-American State University Association (MASUA) Workshop: "Transitions: Using Molecular Tools in Biology." University of Nebraska at Omaha, Sept. 1989.
- The Phytochemical Society of North America 30th annual meeting, 1989. Vancouver, Canada. Paper presented.
- The Phytochemical Society of North America 29th annual meeting, 1988. Iowa City, IA. Paper presented.
- International Society of Chemical Ecology Annual Meeting, 1985. Madison, WI. Paper presented.
- South Dakota Academy of Science Meetings, papers presented each year: 1970-77; 79-82; 84-86; 1988; 1990-92. Section chairman at most of these meetings.
- American Institute of Biological Sciences (AIBS) Annual Meeting, 1979, Stillwater, OK., paper presented in the Bot. Soc. Am. section.
- American Soc. Plant Physiologists Annual Meeting, 1980, Pullman, WA., Poster paper presentation.
- North American Symposium on Allelopathy, Section Chairman, 1982, Urbana, IL.

National Science Foundation Grant Director's Meetings

- 1974. Instructional Improvement Implementation Program (Chicago)
- 1975. Research Initiation and Support. Institutional Representative (Denver).
- 1976. Student Science Training Program. (May: Washington, DC)
- 1976. Research Initiation & Support Program. (Nov: Washington, DC)
- 1981. Pre-College Teacher Development in Science. (Los Angeles)

Guest Seminars and Talks

- Xin Jiang Agricultural University, China. "Sorghum Allelopathy and Its Mechanism of Action in Weed Control." May, 2008.
- Northwest Agricultural and Forestry University. "Missouri State University: Graduate Education." May, 2008.
- Biology Senior Seminar Guest speaker each semester, 1992-2010.
- Missouri State University, Provost's Research Forum. "Unraveling Nature's Herbicides: The Reality and the Hope." May, 2007.
- Missouri State University, Showcase on Teaching and Learning. "Provost Research Incentive Projects: Implications for Research and Teaching." August, 2007.
- Missouri State University. Showcase on Teaching and Learning: "Graduate Student Recruitment Initiatives." January, 2008.
- Missouri State University, Chemistry Dept. Seminar 1994
- College of the Ozarks convocation speaker. October, 1995.
- Missouri State Univ., Biology Department, Sept. 1992. "Insights into the Mode of Action of Sorghum Allelochemicals"
- Missouri State U., Fruit Experiment Station, Oct. 1992. "Sorghum Allelopathy: How Does it Work?"
- Guest Seminars and Lectures in the following classes:
 - o Audiology, for Dr. Wafaa Kaf (March 2006)
 - o Physician Assistant Studies class, 2002 "Pedigree Analysis"
 - o Weed Science, for Dr. Pamela Borden (several times, 1995 – 2000)
 - o Western History, for Dr. Hoover (several times)

- o Science Teaching Methods, for Dr. Otto (several times)
 - o Marriage and the Family, for Dr. Goering
- Church Professional Agricultural Soc. Annual meeting, April, 1988, Independence, MO. "Nature's Herbicides: The Challenge for Agriculture".
- USDA Foreign Disease-Weed Science Res. Sta., Frederick, MD June, 1988. "Efficacy of Grain Sorghum in Weed Control"
- Small Farm Resource Project, Hartington, NB., Feb. 1985. "Allelopathy in Agronomic Fields"
- USD Science Forum:
 - o 1984 "Development of a Bioassay in Allelopathy"
 - o 1986 "Allelochemicals: The Sum is Greater Than the Parts"
- USD Medical School, Biochemistry Seminar, Feb., 1987 "Examining the Action of Allelopathic Chemicals"
- Dordt College, Nov. 1987. "Applications of Allelopathy in Cropping Systems"
- USDA Weed Sci. Res. Station, Frederick, MD., July, 1983. "Bioassays in Allelopathy"
- Univ. of Northern Iowa, College of Science, April, 1982. "Modes of Action of Allelochemicals"
- South Dakota State University Plant Science Dept., Nov., 1982. "Allelopathy in the Crop Sciences" (two seminars)
- USDA Weed Science Res. Station, Frederick, MD, June, 1982. "Perspectives on the Mechanism of Action in Allelopathy"
- USD Chapter of Xi, Presidential Address, Jan., 1981, "The Allelopathy Affair: One Aspect of Plant Communities"
- South Dakota State Univ. Chapter of Sigma Xi, April, 1977. "Biochemical Warfare Among Plants"
- Augustana College, 1975, "The Role of Allelopathy in Old-Field Succession"

Regional Service

- Editor for the Annual Proceedings of the Midwestern Association of Graduate Schools, 1997-2000; 2008; 2009.
- Publication Committee, Midwestern Association of Graduate Schools, chair 1996-2001; 2007-10; member 2002-2011.
- Sigma Xi – The Scientific Research Society. USD Chapter Vice-President and Program Chair, 79-80; President 80-81;
- South Dakota Academy of Science: Membership Chairman (73-76); Nominating Comm. Chairman (78-79); Collegiate Section Judge several times; Section Chairman most years (1970-92).
- Biological Sciences Curriculum Study Area Consultant, appointed by BSCS headquarters, 1974-89.
- National Science Olympiad at USD, 85-91 set-up and judge.
- Instructor, South Dakota Governor's Camp for the Gifted

11. HONORS AND RECOGNITION

- Invited and travel paid by the People's Republic of China in May 2008 to visit and make presentations at several agricultural universities as an internationally recognized plant scientist in plant-plant chemical interactions.
- Invited speaker on allelopathy over 20 international meetings and symposia with funding from the organization (Section 10).
- Harrington Lecture, Feb. 25, 1991. "Secrets of Plants and People." University of South Dakota College of Arts and Sciences Annual Honorary Lecture.
- Burlington Northern Foundation Faculty Achievement Award, 1985. (\$2,000 award for excellence in teaching & scholarship; first such award made at USD)
- Nominated: "Professor of the Year" nomination, 1981, by USD to the Council for the Advancement and Support of Education.

Honor Societies and Distinction

- Golden Key – elected at Missouri State University
- Phi Beta Kappa – elected at University of South Dakota
- Omicron Delta Kappa (selected, 1986)
- Phi Kappa Phi Honorary, Kansas State University Chapter
- Gamma Sigma Delta Agricultural Honorary, KSU Chapter
- Lambda Delta Sigma, Graceland College Honorary
- Graduated "with distinction", Univ. of Kansas
- Listed:
 - o American Men and Women of Science, 13-16th Editions
 - o International Who's Who in Education, 1980 Edition
 - o Who's Who in Frontier Science and Technology, 1st Ed.
 - o Who's Who in the Midwest, 19th Edition
 - o Who's Who in Science and Engineering, 1st Edition.

Fellowships and Awards

- Fribourg Scholastic Scholarship, Kansas State Univ., 1959
- NSF Summer Institutes for Science Teachers, 1962-64
- NSF Summer Fellowships, 1965-67
- NDEA Fellowship for College Sci. Teacher Prep., 1967-69.
- NSF Post-Doctorate Fellowship, Summer, 1969

12. FUNDED GRANTS AND CONTRACTS

- "Photosynthesis and Fluorescence System Educational Equipment." Equipment grant from Li-Cor Biosciences, Li-Cor Environmental Education Fund (\$38,500). 2009.
- "Brewer Science Graduate Assistantship Sponsorship" grant jointly with the VP for Research and Economic Development. (\$29,985 in 2007); (\$24,560 in 2008).
- "Decorize Agreement" grant funding assistantships with V.P. Baker (\$8,085), 2007.
- Library Science Program Contract with UM-C, 2000-present (approx. \$20,000 yearly)
- "HUD Intern Work-Study" Dept. Housing and Urban Development, with Diane May as co-PI. 1994-97. (\$138,000)
- "Effects of Naturally Occurring Phytotoxins on Mitochondrial and Chloroplast Functions." A component proposal of the South Dakota NSF EPSCOR. (approx. \$30,000) 1992-93.
- "Effects of Allelochemicals on Plant Mitochondria." NSF Research Opportunity Award. (\$11,466). S1991.
- "Exotic Plants in Theodore Roosevelt National Park." (with J. Butler). Univ. of Wyoming National Park Service Research Center (\$15,902) 1991-92.
- "Mode of Action of Allelochemicals on Plants: Energy and Water Relationships." A component proposal of the SD project EPSCoR: NSF Experimental Program to Stimulate Competitive Research (EPSCoR) (\$180,000), 1989-92.
- "Biocontrol of Leafy Spurge." Funded as a direct cooperative project with the USDA Foreign Disease)Weed Science Research Station, Frederick, MD. \$3,000 for S1990.
- "Effects of Allelochemicals on Mitochondria." NSF Research Opportunity Award. (\$12,600). S1990.
- "Biocontrol of Leafy Spurge." Funded as a cooperative project with the USDA Weed Science Research Station Frederick, MD. 1989. Approx. \$3,000.
- "Investigation of the Differential Action of Allelochemicals on Broadleaf and Grass Weeds." USDA, Foreign Disease)Weed Science Sta., Frederick, MD. (Proposal for \$13,000 was funded by hiring the PI as a staff scientist June - August, 1988.
- "Enhancement of Botanical and Biotechnology Instruction by an International Perspective." USD

- Faculty Bush Foundation Award for improvement of undergraduate instruction. (\$3244), S1987.
- "Equipment for Plant Growth Bioassays." Pyranomic Industries Inc. (Equipment Valued at \$1050). 1987.
 - "Investigation of the Action of Allelopathic Chemicals on Water-Use Efficiency of Plants." USD General Research Fund (\$4340), Oct. 1986 - Sept. 1987.
 - "Assessment of the Concert Action of Allelopathic and Herbicide Stress on Plant Growth." USD General Research Fund (\$3550) Nov. 1985 - Sept. 1986.
 - "Interaction of Allelochemical Stress and Other Environmental Stress on Water Metabolism of Crops." U.S. Dept. Interior:
 - Grant No. 14-08-0001-G1044. (\$4,900) July 1985-June 1986
 - Grant No. 1-08-001-G933. (\$13,200) Sept. 1984-Sept. 1985
 - "Action Mechanisms of Allelochemicals in Plant Growth Inhibition." USDA, Agric. Res. Ser., NER: USDA 58-32U4-3-507 (\$9,300) May 1982 - April 1983.
 - "Science Concepts for Understanding Key Societal Problems Addressed in Middle School Curriculums." NSF Pre-College Teacher Dev. Prog. NSF-SPI-8100996 (\$33,274) 1981-82.
 - "Efficiency of Water Use by Crops Under Allelopathy Stress." U.S. Dept. Interior, Off. Water Research and Technology. Project B-063-SDAK. (\$38,727) Sept. 1979 - Oct. 1982.
 - "Visual Aids for Genetics Instruction." USD Educational Media Idea Project (approximately \$300), 1981-82.
 - "Energy and the North Central Plains: A Workshop for Secondary Science Faculty." (Co-author with Dr. Miller) Dept. of Energy. DOE-FG05-791R10082 (\$14,866) Summer 79.
 - "Development of Research Capabilities in Joint Environmental Dept." NSF Research Initiation and Support Program. NSF-SER76-18073 (\$112,000) 1976 - 1980.
 - "Monitoring of Photosynthesis and Respiration in Agronomic Plants." USD General Research Fund (\$300 equipment), 1976.
 - "Visual Aids for Genetic Instruction." USD Educational Media Instructional Development Exploration Project (\$300). 1977-78.
 - "Instruction Scientific Equipment for Environmental Physiology Courses." National Science Foundation, NSF GZ3298, (\$14,000) 1974-76.
 - "Analysis of Plant and Animal Growth and Development Under Stress Environments." National Science Foundation Student Science Training Project for High School Students, NSF EPP75-05822 (\$11,950), 1975.
 - "Teacher Training Project for Implementing ESCP and BSCS Materials and Philosophy in Secondary Schools." National Science Foundation Instructional Improvement Implementation Program, NSF-PES75-01543 (\$21,408), 1975.
 - "Effects of Allelopathic Weeds on Gas Exchange Rates in Agronomic Crops." Univ. of South Dakota General Research Grant (\$800), 1975.
 - "Teacher Training Project for Implementing ESCP and BSCS Materials." National Science Foundation Instructional Improvement Implementation Program, NSF GW8598 (\$19,118), 1974.
 - Summer Inst. in BSCS Materials for Pre- and In-Service Teachers; Part of an NSF Comprehensive Science Education Grant. 1973.
 - Summer Institute for Preparation of Pre-Service Science Teachers from Colleges of the Service Region of the Univ. of South Dakota; Part of a Comprehensive Science Institutional Project in Teacher Education from the National Science Foundation (Component Portion \$17,292), 1972.
 - "Effects of Allelochemicals on Plant Water Potential." The Fred C. Gloeckner Foundation, Inc., 15 E. 26th Street, NY. 1972. (Equipment Grant: \$820).
 - "Effects of Plant Phenolics on the Stomatal Mechanism." The Fred C. Gloeckner Foundation. (Equipment Grant: \$277), 1971.
 - "Evidence of Allelopathic Compounds in Selected Weeds in South Dakota." Univ. of South Dakota General Research Fund, (\$320), 1970.

- "Allelopathic Effects of *Artemisia tridentata* and Other Plants of South Dakota." Univ. of South Dakota General Research Fund, (\$250), 1969.

13. THESIS STUDENTS MENTORED AND THESIS COMMITTEE SERVICE

Thesis Research Advisor (graduation date in parenthesis)

- Lee-Ying Kuan (Aug. 1970) "Effects of scopoletin and chlorogenic acid on stomatal aperture in tobacco and sunflower"
- Robert Kreber (May 1971) "Effects of thioacetamide, pilocarpine, and tannic acid on *Drosophila* larval salivary-gland cells"
- Richard F. Mulfinger (1973) "The effects of phenolic compounds upon the growth and respiration of *Paramecium multimicronucleatum*"
- Kenneth Kadlec (1973) "Para coumaric acid inhibition of growth, photosynthetic and transpiration rates in grain sorghum"
- Bradley E. Marvel (1974) "The effects of tannic acid and quinic acid upon the population growth and respiration of *Paramecium bursaria* under three temperature regimes (Thesis cochairman with Raymond Dillon)
- Bernard Kastein (Aug. 1976) "Effects of *Rumex crispus*, *Asclepias syriaca*, and *Kochia scoparia* on photosynthetic and respiration rates in grain sorghum"
- Tyone McNeill (Aug. 1977) "Allelopathic effects of *Conyza canadensis* (L.) Cron. on growth and metabolic responses of grain sorghum and radish"
- George Riechers (July 1978) "Allelopathic effects of vanillic acid on mineral nutrient concentrations in *Sorghum bicolor* (L.) Moench."
- Craig Colton (May 1978) "Allelopathic mechanisms of *Abutilon theophrasti* Medic."
- Mary L. Stille (July 1979) "Effects of ferulic and *p*-coumaric acids on water status of grain sorghum and soybean"
- John Kobza (May 1980) "The effects of ferulic acid on the mineral nutrition of grain sorghum"
- Mary K. Schon (July 1981) "Allelopathic effects of *Kochia scoparia*, *Xanthium pensylvanicum* and a *Helianthus annuus* cultivar on the water status and growth of grain sorghum"
- Paul Eckrich (Dec. 1982) "Interactions of ferulic acid with other environmental stresses on seedling growth"
- Joseph Hamm (July 1984) "Effects on oats and sorghum of combinations of atrazine, trifluralin, and ferulic acid"
- Brent Wegher (Aug. 1986) "Interactions of allelochemical stress and herbicide stress on growth of sorghum and wheat"
- Paul F. Nyberg (Aug. 1986) "Effects of allelochemicals on photosynthesis and respiration of *Lemna minor*"
- Kimberly Scholes (May 1987) "Effects of six classes of allelochemicals on growth, photosynthesis, and chlorophyll content in *Lemna minor*"
- Richard Barkosky (May 1988) "Effects of Three Phenolic Allelochemicals on Water Status and Water-Use Efficiency of Soybeans"
- Milton J. Haar (Aug. 1990) "Allelopathic Effects of Sesquiterpene Lactones"
- Regina Wixon (Aug. 1991) "Effects of Several Allelochemicals on Water Status of Soybean"
- Steven D. Cole (Aug. 1991) "Allelopathic Effects of *Crotolaria juncea*"
- Angela M. Hejl (Aug. 1991) "Inhibition of Respiration in Isolated Soybean (*Glycine max*) and Corn (*Zea mays*) Mitochondria by Sorgoleone, A Sorghum Root Exudate"
- Stephaine Quah (Aug. 1992) "The Effects of Five Allelopathic Chemicals on Respiration of Soybean Mitochondria"
- Cheng-Fang Yang (Dec. 1996) "Action of Allelochemicals on Algal Growth and Photosystem II Efficiency"
- William McClain (Dec. 2002) "Interactive Effects of Ferulic Acid and Irradiance on Plant Growth and Photosynthetic Rate"
- Melissa Remley (Aug. 2004) "Effects of *p*-Hydroxybenzoic Acid and Boron on Growth and

Mineral Content of Velvetleaf'

Doctorate Dissertation Advisor

Richard Barkosky (May 1997, Univ. of S. Dak.) "Mechanism of Action of Allelochemicals on Leafy Spurge"

Thesis Committee Member and Reviewing

- Committee Chairman for approximately 25 MNS and 5 Master of Selected Students.
- Committee member for 50 Biology MA's completed at USD and 20 M.S. students at MSU.
- Member of several M.A. student's committees in at USD programs in Chemistry, Speech, Communication Science and Disorders, and Master of Selected Studies.
- Reviewed several hundred theses as graduate dean at MSU.

14. UNIVERSITY COMMITTEE ASSIGNMENTS

Missouri State University

- Academic Leadership Council, 1992-present; Chair 2005-06; 2011-present.
- Administrative Council, 2005-06; 2011-12.
- Academic Affairs Budget Advisory Committee, Chair. 2011-present.
- University Long-Range Planning and Advisory Council
 - o 2004-05. Development of *Imagining and Making Missouri's Future, Long-Range Plan 2005-2011*. Chaired Research Planning Task Force, 2003-05.
 - o 2010-11. Development of *Fulfilling Our Promise, Long-Range Plan, 2011-16*. Chaired Research, Creativity, and Inquiry Task Force subgroup.
- Executive Enrollment Management Committee, 2000-2007; 2011-present
- Missouri State Graduate College, Graduate Council (*ex officio*), 1992-2011.
 - o Coordinator of Council activities & work of the several subcommittees of the council.
 - o Graduate Council Executive Committee, 1997-11 began after new by-laws developed.
- Honorary Doctorate Degree Committee, 2002-10.
- Marketing Council, 2009-2011.
- Coordinate research compliance committees and policies, and/or serving as *ex officio* member. 'Institutional Official' for Federal Compliance Reporting on these research compliance areas.
 - o Institutional Review Board for Protection of Human Participants, 1992-2005.
 - o Institutional Animal Care & Use Committee, 1992-present
 - o Biosafety Committee, 2000-present
 - o Radiation Safety, 2008-present
- Coordinate activities and served *ex officio*:
 - o Faculty Grants Committee, 1992-2011.
 - o Faculty Leave Committee, 1992-2010; then combined with Grants Committee
 - o Sponsored Program Advisory Comm., 1995-96; reconstituted 2003-2011.
- Space Management, 2005-06; Space Management Task Force, 2011-12.
- Intellectual Property Policy Revision Committee member, 2009-10.
- Life Science Advisory Board, Springfield area, 2007-09
- Higher Learning Commission Steering Comm., 1992-1995; 2002-2006. Review and Monitoring Committee. 1995-2009.
- Coordinator for the Provost's Research Forum, 2005-2009.
- China Management Committee, 2009-present.
- Extended Campus Advisory Committee, 2009 (report to Provost)
- Distance Learning/Internet Policies and Procedures Comm., 1997-2007.
- Indirect Cost Policy Committee, Chair 2005-06.

- Health Information Privacy and Protection (HIPPA) Oversight, 2003-present
- President's Future's Task Force, 2005-06. Future's Advisor Committee, Chair 2006-09.
- Permanent Residency Approval Committee, 2008-present.
- Whistleblower Committee, 2005-06.
- SCUFF Advisory Committee, 2005-06.
- Information Technology Council, Chair 2005-06.
- Center for Outstanding Schools Advisory Committee, 1994-96.
- NCATE Accreditation Steering Committee, 1996-98.
- President's Faculty Roles and Rewards Committee, Chair, 1993-95
- UPAC (University Planning and Advisory Council), 1993-94.
- Senate Academic Relations Committee, 1994-95.
- Faculty Recognition Committee, 1992-94.
- Patent/Copyright Guidelines Committee, 1992-93, Chair.

Representative Search Committee Service

- College of Health and Human Services Dean's Search, 1996; 2008-09 Chair.
- Director of Institutional Research Search Committee, 2008. (Kathy Coy appointed)
- Homeland Security Faculty Search Committee, Chair. 2007-08. (David Claborn hired)
- Associate VP for Marketing, 2007-08. (failed search)
- Proposal Development Specialist Search Committee member, 2006-07. (Debbie hired) Director of Sponsored Programs Search Com., 1994-95 (Bill Alter hired); 2007-08 (failed search)
- Search Committee for Associate Vice President for Finance, 2003 (Kent Kay hired)
- College of Natural and Applied Science Dean's Search Committee, 1995 (L. Banks appointed)
- College of Education Dean's Search, 1993.

University of South Dakota

- University Senator, 1973-77; 1984-88; Senate Chairman, 1976-77; Chair functions included
 - President's Staff and Dean's Council meetings
 - Faculty Representative to the South Dakota Board of Regents
- Univ. Senate Executive Comm. 1975-79, Chair 76-77.
- South Dakota Conference of Senates, 1976-82, 84-87; 1991-92; Vice-Chair 76-77 and 78-79, Secretary 77-78.
- Master of Selected Studies Advisory Committee, 1979-92.
- USD NSF EPSCOR (Experimental Program to Stimulate Competitive Research) team, 1989-92.
- USD Campus Coordinator for initiation of EPA EPSCOR and DOE EPSCOR proposals, 1991-92.
- University Tenure and Promotion Committee, 1981-84.
- University Planning Committee to study "Solid Waste Problems" 1990
- Selection Committee: Dakota Alumni Prize for Senior Women, 1990-92.
- Teacher Education Advisement Committee, School of Education, 1990.
- Committee to Review the University Planning, 1987-88.
- Elected University Planning Committee, 1988-89.
- Admissions Committee 1977-79, 86-88
- Department of Biochemistry, Med. School, Five Year Review, 1986-87.
- Department of Chemistry, Five Year Review, 1987-88.
- *Ad Hoc* Committee for Incoming Student Reading List, 1988.
- Graduate Science Research Forum, 1988-89.
- Department of Nursing, Five Year Review, 1989-90.
- Awards Committee, Chair 1985-87
- USD Centennial Committee, Panel Discussion Member, 1982.
- University Central Planning Committee, elected 1982-1985.
- Team for Administrative Review of Vern Miller, 1984-85.

- School of Business Five Year Review, 1985-86.
- Danforth Foundation Graduate Fellowship Postbaccalaureate Liaison Officer, 1978-80.
- University Curriculum and Instruction Committee, 1973-75; Chairman 1974 and 1975.
- Formula Budget "Committee of Six" (Joint USD and SDSU Conference of Senates Committee to study formula budgeting, 1974.)
- Indian Education Team for School of Education, College of A & S member during developmental stage. 1973-74.
- USD Higher Educ. Faculty Association Executive Committee: Treasurer 1972-73; Director 1974-76.
- Science Program Option Review Committee, Division of Elem. & Secondary Education program approval process. 1975-76.
- University Continuing Planning Committee of Senate, 1975-77.
- University Academic Freedom and Tenure Hearing Committee, 1974-76.
- Visitation Team to National College of Business for the purpose of credit transfer, AACRAO. 1975.
- Science Education Advisory Committee, 1973-92.
- USD Chapter Council of Higher Education (COHE)
 - Negotiations Comm., 1980-83
 - USD COHE Fringe Benefit Comm. Chair, 1987-89.
 - COHE-REGENTS Fringe Benefit Comm., 1981-84, 87-89.
- Teacher Education Council (School of Education), 1986-92.
- Lawrence Symposium Committee, 1986-92.

Selected Search Committees

- USD Presidential Search Committee, 1981.
- Search and Selection Committee for Vice-President for Academic Affairs, 85-86.
- Vice-President Academic Affairs Selection Committee, Chair, 1979.
- Native American Health Care Educator Coordinator Selection, 1974.

15. COLLEGE and DEPARTMENTAL COMMITTEE ASSIGNMENTS (Univ. S. Dakota)

- Coordinate and *ex officio* on all Biology Department Committee, 1989-92.
- Graduate Steering Committee, 1989-92
- A&S Dean's Tenure and Promotion Guidelines Committee, 1990.
- Biology Curriculum Development 1978-1992, Chair 1978-89.
- Chair, Division of Natural Sciences and Mathematics, 1979 - 1984.
- Publicity Committee, 1989-90.
- Cable Scholarship Awards Committee, 1989.
- Dean's Advisory Council, 1979-1989.
- E.P. Churchill Award Committee: 1976, 1986, 1988, 1989.
- Hazardous Wastes, 1987-92.
- Exit Exam *Ad Hoc* Committee, 1988.
- Phi Sigma Advisor, 1989-92.
- Chairman of Advisory Council subcommittee to develop procedures of A&S Planning, 1985-86.
- College Arts & Sciences Curriculum & Instruc. Comm: 1978-80 (Chair 79-80); 1986-90 (Chair 87-88)
- College of Arts and Science Tenure and Promotion, 1980-81; 89-92.
- Science Division Evaluation-Workshop Committee, 1980.
- Churchill-Haines Laboratory Dedication Committee, 1977.
- In-charge of Greenhouse, 69-78.

16. CONSULTING ACTIVITIES

- Arkansas Department of Higher Education. Biology Program Review, 1996.

- Consultant on Allelochemicals in Agriculture to Pugh-Roberts Assoc. Technology Management Group, Cambridge, MA. 1984
- Book Review Consultant
 - Wadsworth Publishing Co. (on books in year indicated)
 - o Genetics by Becker (1976-77)
 - o Genetics by Malecha (1976)
 - o Non-Genetics by Larison (1976-77)
 - o Elements of Genetics by Hulman (1977)
 - o Molecular Genetics by Mays (1977)
 - o Plant Physiology by Salisbury and Ross (1980)
 - o Freeman and Company: Biophysical Plant Physiology by Nobel (3rd Ed., 1980)
 - William C. Brown Company:
 - o Genetics by Weaver and Hedrick (1985)
 - o Human Genetics by Maxon and Dougherty (revision 1986)
 - o The New Human Genetics by Stine (1986)
 - o Biology and You (nonmajor biol. text in preparation, 1987)
 - o Genetics: A Human Perspective by Maxson and Daugherty (1988)
 - o Harper Collins Publishing: Human Biology by Richer/Easton (1991).
- McGraw-Hill Yearbook of Science & Technology, 1990 supplement, consultant on allelopathy, 1988.
- Science Teaching Consultant
 - o Western Iowa Tech. College, Sioux City, IA,
 - o Biology Curriculum Development, Nov. 1991.
 - o Lincoln-Union Educ. Coop., Elk Pt. Regional In-Service Teacher Training Workshop, Feb. 1982.
 - o SDEA Annual Meeting, Sioux Falls, Oct. 1978, Topic
 - o Presented: "Current Topics in Biology Teaching" Northern Great Plains Science and Math Res. Cen., 1976-80.
 - o Elementary Science Implementation & Dissemination Project, USD Area Schools, 1974-75.
 - o Norfolk Nebraska Public Schools Workshop, 1971.