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EDUCATION

1977	Ph.D.	Crop Production and Physiology, Iowa State University
1973	M.S.	Agronomy, Pennsylvania State University
1971	B.S.	Agricultural Mechanization, Pennsylvania State University
2006-present	Certification	Nutrient Management, Maryland Dept of Agriculture
2008-present	Certification	Technical Service Provider, USDA-NRCS

PROFESSIONAL EXPERIENCE

7/07-present	Extension Specialist in Agriculture Energy, Rutgers Cooperative Extension, Department of Plant Biology and Pathology, Rutgers, The State University of New Jersey, New Brunswick, NJ
1/08-12/08	Visiting Professor of Biomass Energy, Everglades Research and Center/IFAS/University of Florida, Belle Glade, FL
7/02 – 6/07	Director of National and Regional Partnerships, New Jersey Agricultural Experiment Station (NJAES), Assistant Director of Rutgers Cooperative Extension, and Chair, Department of Extension Specialists
7/92 – 6/02	Dean of Outreach, Cook College and Director, Rutgers Cooperative Extension
3/91-9/94	Interim Assistant Director of Program Development, NJAES
1/90 - 6/92	Chair and Extension Specialist, Department of Agricultural and Resource Management Specialists, Rutgers Cooperative Extension
6/81 to 12/89	Assistant/Associate Professor and Extension Specialist, Agronomy Department, University of Missouri, Columbia, MO

9/77 to 5/81 Assistant Professor and Extension Specialist, Crop and Soil Sciences Department, Michigan State Univ., East Lansing, MI

9/75 to 8/77 Adjunct Instructor, Agronomy Department, Iowa State Univ., Ames, IA

EXTENSION ADMINISTRATIVE LEADERSHIP, NATIONALLY & REGIONALLY

Extension Committee on Organization and Policy (ECOP)/Cooperative Extension Section/National Association State Universities and Land Grant Colleges

1997 National Chair
1996-1999 NAPIAP Inter-Regional Coordinating Committee
1996-1998 Executive Committee
1995-2007 IPM National Advisory Committee; Pesticide Safety Education Program
1994-1997 Budget Committee

Northeast Extension Directors (various dates from 1994-2006)

Representative/Liaison to: NE Pasture Research and Extension Consortium, NEREAP-IPM, NE Integrated Pest Management Center, Pesticide Safety Education Program; NE Sustainable Agriculture Research & Education program (Administrative Council).

AWARDS AND RECOGNITIONS

2002 NJ Farm Bureau Distinguished Service to Agriculture.
1998 NJ FFA Honorary Degree
1990 First Place - Public Relations Project Award for Creative Excellence - Gateway Chapter, National Agriculture Marketing Association (co-recipient)
1989 American Soybean Association/ICI Americas - South American Soybean Recognition Tour
1985 American Soybean Association/ICI Americas - Soybean Researchers Recognition Program
1987 & 1984 American Society of Agricultural Engineers - Blue Ribbon Award for three Extension Publications

TEACHING

- Undergraduate/Graduate/Extension

Rutgers, The State University of New Jersey

2009 -Present	Plants and People (shared)	3credits
2004- Present	Modern Crop Production	3 credits
2004-2005	Agriculture and Environmental Perspectives	2 credits
1992	Sustainable Agriculture-problems course	1 credit

University of Missouri - Columbia

Major programmatic activities as State Extension Specialist in Agronomy/Soybeans included significant input into the development of the Missouri Soybean Handbook and National Soybean Diagnostic Guide; development and administration of a yield contest for 4-H and FFA youth; major mass media (radio and news releases) outreach; production efficiency meetings, field days, and demonstrations, computer software development, and sustainable agriculture program development.

Classroom instruction involved the following:

1988-1989	Agronomy 20 - World Food and You (co-taught)	2 credits
1988	Agronomy 204 - Grain Crops	3 credits
1983-1987	Agronomy 230 - Crop and Soil Management	3 credits
1983	Agronomy 303 - Forages	3 credits
1983-1989	Graduate Student Advisor - 2 MS theses, 7 committees	
1987-1989	Undergraduate Internship Advisor - 3 students	

Michigan State University

Major programmatic activities as State Extension Specialist in Crop and Soil Sciences included development of a new soybean Extension program that included county variety testing and management demonstrations, publications, mass media, in-service education and educational meetings. Similarly, a new program in forages was developed with major activities in hay marketing, forage quality and regional forage days. Energy in agriculture responsibilities focused on a comprehensive Michigan Energy Audit program that included a survey, instruction, publications, and computer programs.

Classroom instruction involved the following:

1979	Crop and Soil Sciences 050 - Corn and Soybeans	3 credits
1979	Crop and Soil Sciences 070 - Cash Crop Management Skills	3 credits
1978-1980	Crop and Soil Sciences 411 - Special Problems in Agronomy	1-3 credits
1979-1981	Graduate Student Advisor - 1 MS thesis, 3 committees	

• **Extension/ Educational Meetings**

Rutgers University – Currently implementing a program on Energy in Agriculture that has involved

demonstrations, field day and conference presentations. Cooperated in the development and presentation of in-service education programs on "Writing for Professional Journals," "Reappointment and Promotion Procedures," "Grantsmanship", "Liability for Master Gardeners", and various presentations on energy, soybeans and nutrient management.

University of Missouri-Columbia - Annually, 20 or more presentations at grower meetings, field days, and related clientele events; one to two invited out-of-state presentations; and one to three in-service education programs.

Michigan State University - Annually, 25 or more presentations at grower meetings, field days, and related clientele events; one to two invited out-of-state presentations; and one to three in-service education programs.

- **Mass Media**

Rutgers University - AG*SAT Program - "Writing for Professional Journals," 2 hours; various news articles

University of Missouri-Columbia - Averaged 25 radio and 4 TV programs/interviews; 30 news releases; and 10 newsletter articles per year.

Michigan State University - Averaged more than 15 radio and 3 TV programs/interviews; 20 news releases; and 8 newsletter articles per year. A 30-minute TV program was also produced.

SCHOLARSHIP

- **Dissertation and Thesis**

Helsel, Z.R. 1977. Dry matter yield, nutritive composition and combustible energy value of biomass grown in single and double cropping systems. Ph.D. Dissertation. Iowa State University, Ames, IA.

Helsel, Z. R. 1973. Forage quality and morphological characteristics of orchardgrass (*Dactylis glomerata* L.) clones. M.S. Thesis. The Pennsylvania State University, University Park, PA.

- **Books, Chapters, Published Proceedings (Written/Edited)**

Lasley, P, M. Hogberg, Z. Helsel and A. Larsen. 2009. People, Grassland, and Livestock in Revitalized Rural Communities. Chapter 10, In: W. Wedin and S. Fales (eds.) *Grassland: Quietness and Strength for a New American Agriculture* ASA, CSSA, SSSA, Madison, WI. pp. 173-188.

Helsel, Z. R. 2006. Energy in Pesticide Production and Use. In: D. Pimental,(ed). *Encyclopedia of Pest Management*, 1:1, 1-4. Taylor & Francis, London.

Fretz, T.A., J.S Angle and Z.R. Hesel. 2005. Principals of Grantsmanship. University of Maryland, College Park. 181 pp.

Hesel, Z.R. 1992. Energy and alternatives for fertilizer and pesticide use. In: R. Fluck, (ed.). Energy in World Agriculture. Vol. 6, pp. 177-202. Elsevier Sci. Publ. Co., Amsterdam.

Hesel, Z.R. 1987. Energy in plant nutrition and pest control. In: Z.R. Hesel, (ed.). Energy in World Agriculture Vol 2, pp. 179-196. Elsevier Sci. Publ. Co., Amsterdam. 293 pp.

Minor, H.C. and Z. Hesel. 1985. "Wheat-soybean doublecrop management in Missouri." pp. 223-232. In: S. Shanmugasundaram and E.W. Sulzberger (eds.). Soybean in tropical and subtropic cropping systems. Proc. Symp. Tsukuban, Japan, 26 Sept. - Oct. 1983. Asian Veg. Res. Dev. Center, Shanahua, Taiwan, China.

Energy Use and Management in Agriculture. 1984. B.A. Stout (ed). Breton Publishers, North Scituate, MA. Z. R. Hesel one of several assisting authors.

Myers, G. A., D. Bass, B. A. Stout, T. Surbrook, L. Connor, S. Nott, S. Rosenburg, W. Schauer, G. Schwab, G. Sionakides, Z. Hesel, and V. Meints. 1979. The Michigan Farm Energy Audit Study. In: R. A. Rassolare and C. B. Smith, (ed.) Changing Energy Use Futures. Vol. 4, p. 1762-1770. Pergamon Press, New York.

- **Refereed Journal Articles** (*denotes graduate student)

Lam, E., J. Shine, J. DaSilva, M. Lawton, S. Bonos, M. Calvino, H. Carrier, M.C. Silva-Filho, N. Glynn, Z. Hesel, J. Ma, E Richard, G.M. Sousa and, R. Ming. 2009. Improving sugarcane for biofuel: engineering for an even better feedstock. GCB Bioenergy. 1:251-255.

*Johnson, G.A., M.S. DeFelice, and Z.R. Hesel 1993. Cover crop management and weed control in corn (*Zea mays* L.) Weed Tech. 7:425-430.

Unklesbay, N., Z.R. Hesel, and K. Unklesbay. 1991. How cultivars of soy hulls affect moisture and lipid contents of restructured pork/soyhull products after heat processing. Catering and Health. 2:53-60.

O'Neill, B. and Z. Hesel. 1991. Writing for professional journals: A hands-on approach. J. Extension XXX:34.

*Muzilla, M., Z. Hesel, K. Unklesbay and N. Unklesbay, 1991. Thermal properties of hydrated soy hulls. Crop Sci. 31:1541-1544.

Beuerlein, J.E., Z.R. Hesel, and J.M. Woodruff. 1991. Effective handbook production and distribution. J. Extension XXIX:14-17.

Hesel, Z.R. and N.F. Unklesbay. 1990. Can agronomy be appetizing to non-agricultural

students? J. Agron. Educ. 19:193-195.

*Muzilla, M., N. Unklesbay, Z. Helsel, K. Unklesbay and M. Ellersieck. 1989. Effect of particle size and heat on absorptive properties of soy hulls. Food Qual. 12:305-318.

*Muzilla, M., N. Unklesbay, Z. Helsel, K. Unklesbay and M. Ellersieck. 1989. Absorptive properties of processed soy hulls. Food Qual. 12:319-329.

Helsel, Z.R. and J.W. Thomas. 1988. Small grains for forage. Dairy Sci. 70:2330-2338.

Helsel, Z.R. E. Ratcliffe and W. Rudolph. 1987. Maleic hydrazide effects on soybean reproductive development and yield. Agron. J. 79:910-912.

*Reinbott, T.M., Z.R. Helsel, D.G. Helsel, M. Gebhardt and H.C. Minor. 1987. Intercropping soybeans into standing green wheat. Agron. J. 79:886-891.

Helsel, Z.R., S. Burns and T. Nadler. 1987. MOSOYVAR: A computer based soybean variety information retrieval system. J. Agron. Educ. 16:20-23.

Helsel, D.G., Z.R. Helsel and H.C. Minor. 1986. Field studies on osmoconditioning soybeans. Field Crops Res. 14:291-297.

Helsel, Z. R. and W.F. Wedin. 1983. Direct combustion energy from crops and crops residues produced in Iowa. Energy Agri. 1:317-329.

Helsel, Z.R. and W.F. Wedin. 1981. Harvested dry matter from single- and double-cropping systems. Agron. J. 73:895-900.

- **Extension and other Semi-Technical Publications**

Books

Principles of Grantsmanship II, 2003 Mac Kenzie D.R. J.S. Angle, Z.R. Helsel, and T.A. Fretz College of Agriculture & Natural Resources, Univ. of Maryland. 111pp.

American Soybean Association Diagnostic Guide. 1988. Spec. Rept. #101. American Soybean Association and Extension Service. St. Louis. 52 pp. (Major contributor)

Missouri Soybean Handbook. 1987. Helsel, Z.R., D. Esslinger, S. Anand and G. Lauer (eds). UMC Misc. Publ. M-123. Ext. Div., Univ. of Missouri Columbia. Columbia, MO. 86 pp. (Authored 4 chapters)

Missouri Soybean Handbook. 1982. Helsel, Z. R., D. Esslinger, and S. Anand (eds). UMC Misc. Publ. M-123. Ext. Div., Univ. of Missouri - Columbia. Columbia, MO. 86 pp.

Farm Energy Use: Standards, Worksheets, Conservation. 1981. Coop. Ext. Serv. Michigan State Univ., East Lansing, MI. (Z. R. Helsel - a principal author).

Bulletins/Circulars

- Helsel, Z. R. and D. Specca. 2009. Crop Residues as a Potential Bioenergy Resource. FS1116. Rutgers Cooperative Extension, New Brunswick, NJ.
- Gilbert, R. A., J. Ferrell, and Z. Helsel. 2008. Production of Giant Reedgrass for Biofuel. edis.ifas.ufl.edu./AG327.
- Bonos, S., Z. Helsel, and B. Hlubik. 2008. Switchgrass Production and Use in New Jersey. FS1075. Rutgers Cooperative Extension, New Brunswick, NJ.
- Helsel, Z.R., 2007. Fuel Requirements and Energy Saving Tips for Field Operations. Rutgers Cooperative Extension, Rutgers the State University of New Jersey, New Brunswick, NJ.
- Meade, J.A. and Z.R. Helsel. 1991. Operating Mowers Safely. FS583. Rutgers Cooperative Extension, Cook College, Rutgers, The State University of New Jersey, New Brunswick, NJ.
- Helsel, Z.R., 1987. Buckwheat. UMC Guide 4305. Ext. Div., Univ. of Missouri-Columbia. Columbia, MO.
- Helsel, Z., D. Sharpe, and J. Scheurenberg, 1987. Seed testing services. UMC Guide 4005. Ext. Div., Univ. of Missouri-Columbia. Columbia, MO.
- Minor, H.C. and Z.R. Helsel, 1987. Drilled soybeans in Missouri. UMC Guide 4415. Ext. Div., Univ. of Missouri-Columbia. Columbia, MO.
- Helsel, Z.R., M. DeFelice, and D. Buchholz 1986. Cover crop management for no-till grain production. UMC Guide 4960. Ext. Div. Univ. of Missouri-Columbia, Columbia, MO.
- DeFelice, M.S., H.D. Kerr, J.A. Schaffer and Z.R. Helsel, 1985. Weed control guide for Missouri field crops-1986. MP575. Ext. Div. Univ. of Missouri-Columbia. Columbia, MO.
- Helsel, Z. R. and H. C. Minor. 1985. Soybean production in Missouri. UMC Guide 4410. Ext. Div. Univ. of Missouri-Columbia. Columbia, MO.
- Helsel, D. G. and Z. R. Helsel. 1985. Irrigating soybeans. UMC Guide 4420. Ext. Div. Univ. of Missouri-Columbia. Columbia, MO.
- Anderson, L. E., O. H. Fletchall, H. D. Kerr, E. J. Peters, Z. R. Helsel, and J.A. Schaffer. 1985. Herbicide response of common weeds. UMC Guide 4904. Ext. Div. Univ. of Missouri-Columbia. Columbia, MO.
- Schaffer, J. A. H. D. Kerr, D. Guethle, O. H. Fletchall, E. J. Peters, L.E. Anderson, and Z.R. Helsel. 1985. Chemical weed control in grain sorghum. UMC Guide 4348. Ext. Div.

Univ. of Missouri-Columbia. Columbia, MO.

Anderson, L. E., O. H. Fletchall, D. Guethle, H. Kerr, E. J. Peters, Z. R. Helsel, and J. Schaffer. 1985. Herbicides for corn. UMC Guide 4135. Ext. Div. Univ. of Missouri-Columbia. Columbia, MO.

Helsel, Z. R., H. D. Kerr, E. J. Peters, D. Goethle, L. E. Anderson, J. A. Schaffer, and O. H. Fletchall. 1984. Herbicides for soybeans. UMC Guide 4436. Ext. Div. Univ. of Missouri - Columbia. Columbia, MO.

Helsel, Z. R. and H. C. Minor. 1984. Soybean variety selection. UMC Guide 4412. Ext. Div., Univ. of Missouri -Columbia. Columbia, MO.

Schaffer, J. A., H. D. Kerr, D. Guethle, O. H. Fletchall, E. J. Peters, L.E. Anderson, and Z.R. Helsel. 1984. Herbicides for grain sorghum - 1984. UMC Guide 4348. Ext. Div., Univ. of Missouri -Columbia. Columbia, MO.

Helsel Z. R. and L. E. Anderson. 1984. Soybean harvest aids. UMC Guide 4081. Ext. Div., Univ. of Missouri -Columbia. Columbia, MO.

Helsel, Z. R. 1984. No-till checklist. UMC Guide 4081. Ext. Div., Univ. of Missouri – Columbia. Columbia, MO.

Helsel, Z.R., H.D. Kerr, E.J. Peters, D. Guethle, L.E. Anderson, J.A. Schaffer, and O.H. Fletchall. 1983. Herbicides for soybeans 1984. UMC Guide 4436. Ext. Div., Univ. of Missouri-Columbia. Columbia, MO.

Anderson, L. E., O. H. Fletchall, D. Guethle, H. Kerr, E. J. Peters, Z. Helsel, J. Schaffer. 1983. Herbicides for corn. 1984. UMC Guide 4135. Ext. Div., Univ. of Missouri-Columbia. Columbia, MO.

Minor, H.C., Z.R. Helsel, and S. McCrate. 1983. Wheat - soybean double crop management in Missouri. UMC Guide 4953. Ext. Div., Univ. of Missouri-Columbia. Columbia, MO.

Helsel, Z.R., and H.C. Minor. 1983. Conservation Tillage Tips #4. Cropping systems, crop varieties, and seed quality for conservation tillage. Pamphlet from the Soil Conservation Service and the Ext. Div., Univ. of Missouri-Columbia. Columbia, MO.

Helsel, Z.R. and D.L. Pfof. 1983 Conservation Tillage Tips #3. Planter operation for conservation tillage. Pamphlet from the Soil Conservation Service and the Ext. Div., Univ. of Missouri-Columbia. Columbia, MO.

Helsel, Z.R. 1983. Conservation Tillage Tips #2. Stand establishment for conservation tillage. Pamphlet from the Soil Conservation Service and the University of Missouri-Columbia. Ext. Div., Univ. of Missouri-Columbia. Columbia, MO.

- McCarthy, J.R. and Z.R. Hessel. 1983. Conservation Tillage Tips #1. Conservation tillage: The first time. Pamphlet from the Soil Conservation Service and the Ext. Div., Univ. of Missouri-Columbia. Columbia, MO.
- Hessel, Z.R., D.D. Buchholz, D. Hoette, L.E. Anderson, E. Palm, G. Thomas, and D. Pfof. 1983. No-till planting systems. UMC Guide 4080. Ext. Div., Univ. of Missouri - Columbia. Columbia, MO.
- Buchholz, D.D., L.E. Anderson, Z.R. Hessel, H.C. Minor, C.J. Johannsen, J.H. Scott, and H.N. Wheaton. 1983. Analyzing cropping systems. UMC Guide 4099. Ext. Div., Univ. of Missouri - Columbia. Columbia, MO.
- Fletcher, O. H., Z. R. Hessel, H. D. Kerr, E.J. Peters, D. Guethle, and L.E. Anderson. 1983. Chemical weed control for soybeans - Part 2: Pre-emergence and Postemergence. UMC Guide 4437. Ext. Div., Univ. of Missouri-Columbia. Columbia, MO.
- Fletcher, O. H., Z. R. Hessel, H. D. Kerr, E.J. Peters, D. Guethle, and L.E. Anderson. 1983. Chemical weed control for soybeans - Part 1: Preplanting incorporated treatments and sequential applications. UMC Guide 4436. Ext. Div., Univ. of Missouri-Columbia. Columbia, MO.
- Zandstra, B. H., A. L. Wells, D. G. Hessel, and Z. R. Hessel. 1983. Sweet corn. Ext. Bull. E-1673. Coop. Ext. Serv. Michigan State Univ. East Lansing, MI.
- Hessel, Z. R. and H. C. Minor. 1983. Determinate semi-dwarf and semi-determinate soybean varieties. UMC Guide 4419. Ext. Div., Univ. of Missouri-Columbia. Columbia, MO.
- Anderson, L. E., O. H. Fletcher, H. Guscar, Z. R. Hessel, H. D. Kerr, E. J. Peters and J. H. Scott. 1982. Chemical weed control for soybeans in 1982, Part 2: Pre-emergence and post-emergence. UMC Guide 4437. Ext. Div., Univ. of Missouri-Columbia. Columbia, MO.
- Anderson, L. E., O. H. Fletcher, H. Guscar, Z. R. Hessel, H. D. Kerr, E. J. Peters, and J. H. Scott. 1982. Chemical weed control for soybeans in 1982, Part 1: Preplanting incorporated treatments and sequential applications. UMC Guide 4436. Ext. Div., Univ. of Missouri-Columbia. Columbia, MO.
- Kerr, H. D., J. H. Scott, E. J. Peters, L. E. Anderson, O. H. Fletcher, D. Guethle, Z. R. Hessel, and H. Guscar. 1982. Chemical weed control in field corn for 1982, Part 2: Pre-emergence and postemergence. UMC Guide 4136. Ext. Div., Univ. of Missouri-Columbia. Columbia, MO.
- Kerr, H. D., J. H. Scott, E. J. Peters, L. E. Anderson, O. H. Fletcher, D. Guethle, Z. R. Hessel, and H. Guscar. 1982. Chemical weed control in corn for 1982, Part I: Preplanting incorporated treatments. UMC Guide 4135. Ext. Div., Univ. of Missouri-Columbia.

Columbia, MO.

- Helsel, Z. R. 1981. Soybeans. Ext. Bull. E-1528. Coop. Ext. Serv. Michigan State Univ. East Lansing, MI.
- Helsel, Z. R., T. J. Johnston, and L. P. Hart. 1981. Soybean production in Michigan. Ext. Bull. E-1549. Coop. Ext. Serv. Michigan State Univ. East Lansing, MI.
- Helsel, Z. and T. Oguntunde. 1981. Fuel requirements for field operations with fuel saving tips. Ext. Bull. E-1535. Coop. Ext. Serv. Michigan State Univ. East Lansing, MI.
- Hart, P., J. Lockwood, and Z. Helsel. 1981. Phytophthora root and stem rot of soybeans. Ext. Bull. E-1511. Coop. Ext. Serv. Michigan State Univ. East Lansing, MI.
- Helsel, Z. R. and L. Copeland. 1981. Seeding practices for Michigan crops. Ext. Bull. E-489-rev. Coop. Ext. Serv. Michigan State Univ. East Lansing, MI.
- Helsel, Z. R. and J. Swart. 1980. Soybean irrigation. In: Michigan Irrigation Guide. IFS/9-80. Coop. Ext. Serv. Michigan State Univ. East Lansing, MI.
- Helsel, Z. and M. B. Tesar. 1980. Alfalfa irrigation management. In: Michigan irrigation guide. IFS/6-80. Coop. Ext. Serv. Michigan State Univ. East Lansing, MI.
- Helsel, Z. R., and T. J. Johnston, R. Leep, M. Cordonnier, and F. Pearsall. 1980. 1980 Michigan soybean performance report. Ext. Bull. E-1206. Coop. Ext. Serv. Michigan State Univ. East Lansing, MI.
- Helsel, Z. R., M. B. Tesar, R. Leep, and J. W. Thomas. 1980. Producing high quality, high yielding alfalfa for Michigan. Ext. Bull. E-1413. Coop. Ext. Serv. Michigan State Univ. East Lansing, MI.
- *Rose, W. T., Z. Helsel, B. Stout, and C. Myers. 1980. Energy management for field crop production. Ext. Bull. E-1407. Coop. Ext. Serv. Michigan State Univ. East Lansing, MI.
- Helsel, Z. R., T. J. Johnston, D. Merck, R. Leep, L. P. Hart, and M. Cordonnier. 1979. Michigan soybean performance report - 1979. Ext. Bull. E-1206. Coop. Ext. Serv. Michigan State Univ. East Lansing, MI.
- Helsel, Z. R., T. J. Johnston, and D. Carter. 1979. Michigan soybean performance report - 1978. Ext. Bull. E-1206. Coop. Ext. Serv. Michigan State Univ. East Lansing, MI.
- Helsel, Z. R., and L. Copeland. 1978. Seeding practices for Michigan crops. Ext. Bull. E-489. Coop. Ext. Serv. Michigan State Univ. East Lansing, MI.
- Hillman, D. and Z. R. Helsel. 1978. Cereal grain forages for dairy cattle. Ext. Bull. E-1263. Coop. Ext. Serv. Michigan State Univ. East Lansing, MI.

Johnston, T. J., Z. R. Helsel, and D. McIntyre. 1978. Michigan soybean performance report - 1977. Ext. Bull. E-1206. Coop. Ext. Serv. Michigan State Univ. East Lansing, MI.

Wedin, W. F., R. L. Vetter, A. Seim, R. Segebart, N. P. Martin, and Z. Helsel. 1976. Management of crownvetch pastures for beef cattle. AS Leaflet R214. Iowa State Univ., Ames, IA.

Reports

1988 Annual Soybean Report. 1988. Z.R. Helsel and D. Esslinger (eds.). Agron. Ser. No 9, College of Agriculture, Univ. of Missouri-Columbia, Columbia, MO.

1987 Annual Soybean Report. 1988. Z.R. Helsel and D. Esslinger (eds.). Agron. Ser. No 8, College of Agriculture, Univ. of Missouri-Columbia, Columbia, MO.

1986 Annual Soybean Report. 1987. Z.R. Helsel and S. Seidel (eds). Agron. Ser. No. 7. College of Agriculture, Univ. of Missouri-Columbia, Columbia, MO.

1985 Annual Soybean Report. 1986. Z.R. Helsel and S. Seidel (eds). Agron. Ser. No 6. College of Agriculture, Univ. of Missouri-Columbia, Columbia, MO.

1984 Annual Soybean Report. 1985. Z. R. Helsel and S. Seidel (eds). Agron. Ser. No. 5. College of Agriculture, Univ. of Missouri-Columbia. Columbia, MO.

1983 Annual Soybean Report. 1984. Z. R. Helsel and D. Esslinger (eds). Agron. Ser. No. 4. College of Agriculture, Univ. of Missouri-Columbia. Columbia, MO.

1982 Annual Soybean Report. 1983. Z.R. Helsel and D. Esslinger (eds.), Agron. Ser. No. 3. College of Agriculture. Univ. of Missouri-Columbia. Columbia, MO.

1982 Helsel, Z. R. Missouri soybean grower survey. Agron. Ser. No. 2. College of Agriculture, Univ. of Missouri - Columbia. Columbia, MO.

1981 Annual Soybean Report. 1982. Helsel, Z. R. and D. Esslinger (eds). Agron. Ser. No. 1. College of Agriculture, Univ. of Missouri-Columbia. Columbia, MO.

*Muhtar, H., J. R. Black, D. Christenson, T. Burkhardt, V. Meints, Z. Helsel. 1981. Results of an economic comparison of conventional and conservation tillage systems in the southeast Saginaw Bay coastal drainage basin. Ag. Econ. Staff Paper No. 81-82. Michigan State Univ. East Lansing, MI.

Christenson, D., Z. Helsel, V. Meints, R. Black, R. Hoskins, F. Wolak, T. Burkhardt. 1978. Agronomics and economics of cropping systems in the Saginaw Valley. Ag. Econ. Staff Paper No. 78-88. Michigan State Univ. East Lansing, MI.

- **Conference Proceedings, Papers and Abstracts**

Helsel, Z.R., N.C. Wollenhaupt, and K.D. Kephart. 1991. Cover crop management for soybean production in Missouri, p. 148-149. In: W.G. Hargrove (ed), Cover crops for clean water. Soil and Water Conservation Society, Ankeny, IA.

*Ngesa, H.O., M.S. DeFelice, Z. Helsel, W.B. Brown and C.S. Perkins. 1989. Herbicide timing for control of winter grain cover on no-till soybeans. Proc. North Central Weed Sci. Soc. 44:22.

Helsel, Z.R. 1986. Dual use of educational aids. Agron. Abstr. p. 2. 1986. Annual Meetings, Am. Soc. of Agron., New Orleans. LA.

Wollenhaupt, N.C., S.H. Anderson and Z.R. Helsel. 1986. Effects of selected tillage systems on soil physical properties and soybean growth for claypan soils. Agron. Abstr., p. 255. 1986 Annual Meetings, Am. Soc. of Agron., New Orleans, LA.

*Reinbott, T. N., Z. R. Helsel, D. G. Helsel, H. C. Minor, and M. Gebhardt. 1985. Intercropping soybeans into standing green wheat. Agron. Abstr., p. 105. 1985 Annual Meetings, Am. Soc. of Agron. - Chicago, IL.

Helsel, Z. R., D. G. Helsel, H. C. Minor, V. Keppenne, and M. Gebhardt. 1985. Improving soybean germination and growth in cold, wet soils. Paper No. 85-1012, 1985 Summer Mtg., Amer. Soc. Ag. Eng. E. Lansing, MI.

*Brown, E. A., H. C. Minor, Z. R. Helsel, and D. G. Helsel. Performance of ultra-short season soybean cultivars in central Missouri. Agron. Abstr., p. 122. 1984 Annual Meetings, Am. Soc. of Agron. Las Vegas, NV.

Helsel, Z. R., and S. Burns. 1984. Soybean variety and information selection program. Agron. Abstr., p. 50. 1984 Annual Meetings, Am. Soc. of Agron. Las Vegas, NV.

Helsel, Z. R., H. C. Minor, and D. G. Helsel. 1984. Agronomic performance of ultra-short season soybean cultivars in Missouri. Abstr. No. 396. World Soybean Research Conf. III. 12-17 August 1984. Iowa State Univ., Ames, IA.

Poehlmann, C. J., Z. R. Helsel, D. Pfof. Organizing and presenting a meaningful no-till planter demonstration. Agron. Abstr., p. 52. 1983 Annual Meetings, Am. Soc. of Agron. - Washington, D. C.

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- Hesel, Z. R. and W. F. Wedin. 1977. Biomass from double-cropping systems for combustible energy. *Agron. Abstr.*, p. 100. 1977 Annual Meetings, *Am. Soc. of Agron.*, Los Angeles, CA.
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- **Computer Programs**

Soybean Stand, Yield and Replant, AG0031, copyrighted 1986, Extension Division, University of Missouri-Columbia, Columbia. MO.

Soybean Variety Selection and Information, AG0018, copyrighted 1985, Extension Division, University of Missouri-Columbia, Columbia, MO.

Soybean Yield and Economic Game and Mock Exam for classroom teaching. 1986.

- **Grants, Contracts and Gifts**

- No-Tillage Sweet Sorghum Cropping Systems to Reduce Greenhouse Gasses for Biofuel Production, Highlands EnviroFuels, LLC, Florida Department of Environmental Protection, , 2009-2010; \$305,000, Co-PI
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- Comparing the Environmental and Energy Merits of Biomass Crops, UF/IFAS Innovation Grant, 2008-2009; \$89,166, Co-PI
-
- A Comparison of *Miscanthus x giganteus* Propagation Methods, University of Illinois, 2008-2010; \$10,000, Co-PI
-
- Evaluation of Sorghum Germplasm, Land O' Lakes/EthanoPeru, 2008, \$4000;
-
- Comprehensive Nutrient Management Plans; NJ NRCS-USDA, 2003-08, \$185,950.
- Soybean Variety Testing; New Jersey Soybean Board 1994-97, ~ \$7000/year.
- Agricultural Health Promotion Systems for New Jersey; National Institute for Occupational Safety and Health, Centers for Disease Control, U.S. Department of Health and Human Services; September 1990-4; 4 year, \$473,765.
- As principal or co-investigator, obtained over \$400,000 in grants while at the University of Missouri, primarily from the Missouri Soybean Merchandising Council, Missouri Research Assistance Act; and the North Central USDA-LISA program.
- Obtained over \$150,000 as principal or co-investigator on grants at Michigan State University primarily from Michigan Department of Commerce (Energy)and the Michigan Soybean Committee.
- Received gifts totaling more than \$30,000 from over 25 agri-businesses and organizations while at University of Missouri and over \$8,000 from similar groups while at Michigan State University.

SERVICE

- **Government**

US Department of Agriculture

2007-Present Member, Northeast SunGrant Steering Committee

1991-1993 Member, Technical Advisory Committee, Northeast Sustainable Agriculture Research and Education

1991-1992 Member, Sustainable Agriculture Education Council, ES-USDA

1989-1991 Advisory Committee, National Low-Input Sustainable Agriculture SMART Project

1987 Co-Leader, ES-USDA/Rodale Institute. Low-Input Agriculture National Workshop

- **Professional Societies**

American Society of Agronomy

1971-present Member

1985-1998 ARCPACS certified

2002-2004 Member and Chair (2004) Extension Educator Award Committee

1990-1992 Associate Editor, Journal of Production Agriculture

2003-2005 Member and Chair (2005), A731, Location of Meetings Committee

& 1990-1994

1988-91 Associate Editor, Journal of Agronomic Education

1990-1991 Member, ACS 805 Planning Priorities in Agronomic Research, Teaching and Extension Committee

1986 Software Scene Program Chair

1984-1987 Computer Software Applications Committee

1980-1986 Session Chairman at Annual Meetings

1983 Student Speech Contest Judge

1980 Student Photo Contest Judge

American Society of Agricultural and Biological Engineers

1970-present Member

1985-1990 T-11 Energy Committee

- **Honor Societies**

- Epsilon Sigma Phi
- Phi Kappa Phi
- Gamma Sigma Delta
- Phi Sigma, Sigma Xi

- **University**

Cook College, Rutgers Cooperative Extension (RCE), Rutgers University

- 1992-2007** Represented the Executive Dean and/or RCE to various state/regional committees for all or parts of this period including; Northeast Sungrant, NJ State Mosquito Control Commission, USDA Food and Agriculture Committee, NJ State Technical Committee; NJ State Soil Conservation Committee; NJ Soybean Board; Mid Atlantic Apiary Research and Extension Consortium; Mid Atlantic Food and Farms Coalition
- 1990-1993** Board of Directors, Rutgers Cooperative Extension's Family Community Leadership (FCL) Program
- 1990-1992** Extension Advisor to Field and Forage Crop, Vegetable, Small Fruit, Forestry, Farm Management and Finance, Sustainable Agriculture, and Water Quality Working Groups
- 1990-1992** Member, Cook College Membership and Nominating Committee
- 1990-1992** Member, Greenhouse/Growth Chamber Committee
- 1990-1991** Member, NJAES Outlying Centers Committee
- 1991** Leadership in developing Minorities in Agriculture, Natural Resources and Related Sciences (MANRRS) Chapter

University of Missouri

- 1987-1989** Chair, Low-Input Agriculture Workshop
- 1987-1988** North Central LISA Administrative Council
- 1983-1988** Coordinator, Show-Me Big Bean Yield Council
- 1986-1988** Hearnes Multipurpose Building Committee, campus-wide
- 1982-1987** Ag Science Week Planning Committee
- 1987-1988** North Central LISA Administrative Council
- 1983-1985** Integrated Pest Management Committee
- 1983-1988** Agriculture Experiment Station Field Day Planning Committee
- 1983-1988** Agronomy Department Foundation Seed Distribution
- 1983-1987** Agronomy Department Herbicide Recommendations
- 1982-1985** Agronomy Department Social Committee
- 1984-1985** Agronomy Day, Show-Me Agri-Tech Expo Committee
- 1985** College of Agriculture Placement Committee
- 1985** College of Agriculture Instructional Improvement Committee
- 1985-1986** College of Agriculture Computer Committee

Michigan State University

- Crop and Soil Science Department Advisory Committee
- Forage Production and Marketing Task Force
- Dairy Type-of-Farming Committee
- Crop and Soil Sciences Curriculum Committee
- Crop and Soil Sciences Soybean Commodity Committee
- Crop and Soil Sciences Forage Commodity Committee

- Land Use Committee - Kellogg Farm
- Co-Advisor to Spartan Agronomy Club

- **Other Service**

- Board of Trustees, New Jersey 4-H Development Fund, 1992-2002
- Board of Directors, New Jersey Agriculture Leadership Development Program, 1995-2002
- Board of Trustees, Stonybrook-Millstone Watershed Association, 1991-1997
- Grant Proposal Reviewer: US Small Business Administration, American Soybean Association, Leopold Center, USDA
- Journal Article Reviewer: Agronomy Journal, Journal of Agronomic Education, Journal of Production Agriculture, Energy in Agriculture, Transactions of ASAE