William T. Schapaugh, Jr.

Soybean Breeder and Professor of Agronomy

Education

Iowa State University	B.S.	1975	Agronomy
Purdue University	M.S.	1977	Plant Breeding, Genetics
Purdue University	PhD	1979	Plant Breeding, Genetics

Personal Statement. Dr. Schapaugh has established a successful track record of developing cultivars with both high levels of soybean cyst nematode (SCN) resistance and improved yield potential. Over 30 soybean cultivars have been released from his program since 1979. Seven cultivars possess resistance to soybean cyst nematode. Four Roundup Ready® cultivars have been released to seed producers. Thirteen releases have been special purpose cultivars, suitable for use in food, feed or industrial products. Dr. Schapaugh's professional contributions include: participation in the development of an effective system to transform soybean plants and successfully transformed several soybean plants with a chitinase gene, determining that considerable time and labor could be saved by planting plots to harvest length, thereby eliminating end-trimming without reducing precision, characterizing the genotype by environmental interaction in tests dealing with the evaluation of tofu and soy milk products, which enabled the development of a strategy to test effectively for these products during the breeding process, quantifying the relative performance of SCN-resistant and susceptible varieties across multiple locations in Kansas and evaluating the effect of resistance source rotations on the race structure of three different SCN field populations.

Positions and Honors

Professional Experience and Positions Held:

Professor, Kansas State University Agronomy Dep., 1989 to present
Interim Department Head, April 2010 to August 2012
Associate Prof., Kansas State University Agronomy Dep., 1983-1989
Assistant Prof., Kansas State University Agronomy Dep., 1979-1982

Academic, Professional and Scholarly Societies:

National: Reviewer for Crop Sci., Agron. J., J. Prod. Agric. and Kansas Academy of Sci., Editorial consultant for Kansas Academy of Science (1990 to present), ASA Membership Committee (Kansas Chair 1980-97), ASA Session Chair (1981, 85, 95), ASTA Soybean Research Planning Conference Chair (1986), ASTA Research Conference Chair (1987), National Soybean Breeders' Workshop Program Committee (1981, Co-chair 1982, 2003), National

Soybean Breeders' Workshop Coordinator (1997-99), SoyCAP Representative (2004 to 2007), CSREES Review Team Member for the Louisiana Ag Center (2005), Soybean Genetics Committee (2007 to 2010, Co-chair 2009-10).

University: Graduate Council (1989-91), Graduate Council Advisory Committee (1989-91), Graduate Recertification Committee (1995-97), Faculty Senate Academic Affairs Committee (1992-94, Chair 1994), Admission and Enrollment Committee (1992), Education Experience Task Force (1993-94), Appendix O Review Committee (2006), Faculty Senate (1992-94, 97-99, 2007- present).

College: Crop Variety Release (1984-2005), Course and Curriculum (1992-94), Scholarship (1994-98; Chair 1996-98), NCR-144 Representative (1992-95), Soybean Variety Release Board (1993-00), Eastern Research Locations (Chair 1995), Intellectual Property (1999-2000), Warren Scholarship (2004 to 2007), Interim Assoc. Director of Research Search (2008), Faculty Evaluation (2006 to 2008).

Department: Course and Curriculum (1980-98), Graduate Committee (1981-93, 97; Chair 1985-92, 97), Heyne Lectureship (1984-2005, Chair 1985-91), Scholarship (1990-92), Undergraduate Scholarship (Chair 1994-98), ASA Travel (1984-91), ASA Reception (1984-98; Chair 1993-95, 98), ASA Fellows and Nominations (1994-98), South-central Exp. Field (2001-04), CSRS Review Committee (1999-2000), Experiment Field Review Committee (1999), Department Head Advisory (1999-2003), Crop Performance Test Advisory (1994-2002), Agronomy Farm Advisory (1999-2004; Chair 2001-04), Committee on Planning (2004-05), CSREES Review Committee (2007-08), Graduate Program Coordinator (1985-93, 2005 to present), Faculty Evaluation (1991 to present, Chair 2005 to present) Kansas River Valley Exp. Field (1992-98, 2005 to present), East Central Exp. Field (1991 to present), Wheat State Agronomy Club Co-Advisor (1996-98, 2007-10), Graduate Scholarship (Chair 1994-10), Foundation Seed Advisory (1999 to present), Search Committees for: Department Head (Chair), Crop Performance Agronomist, Field Crop Plant Pathologist.

Honors:

2012	Fellow	American Society of Agronomy
2012	Fellow	Crop Science Society of America

Selected Peer-reviewed papers

L.F. Brzostowski, W.T. Schapaugh, P.A. Rzodkiewicz, T.C. Todd and C.R. Little. 2014. Effect of host resistance to *Fusarium virguiliforme* and *Heterodera glycines* on sudden death syndrome disease severity and soybean yield. Plant Health Progress (accepted).

Abdel-Haleem, H., T. Carter, L. Purcell, C. King, L. Ries, P. Chen, W. Schapaugh, T. Sinclair and H. Boerma. 2012. Mapping of quantitative trait loci for canopy-wilting trait in soybean. Theoretical and Applied Genetics 125: 837-846.

M. Djanaguiraman, P. V. V. Prasad, D. L. Boyle and W. T. Schapaugh. 2011. High-Temperature Stress and Soybean Leaves: Leaf Anatomy and Photosynthesis. Crop Sci. 51: 2125-2131.

T.C. Helms, T.C., R. A. Scott, W.T. Schapaugh, R.J. Goos, D.W. Franzen, and A.J. Schlegel. 2010. Soybean iron-deficiency chlorosis tolerance and yield decrease on calcareous soils. Agron. J. 102: 492-498.

Junghoon Lee, Ruth Welti, Mary Roth, William T. Schapaugh, Jiarui Li and Harold N. Trick. 2012. Enhanced seed viability and lipid compositional changes during natural ageing by suppressing phospholipase Da in soybean seed. Plant Biotechnology Journal, 164–173.

Lee, J., Welti, R., Schapaugh, W.T., and Trick, H.N. 2010. Phospholipid and triacylglycerol profiles modified by PLD suppression in soybean seed. Plant Biotechnology Journal (online) 1-14 doi: 10.1111/j.1467-7652.2010.00562.x.

Roozeboom, K.L, William T. Schapaugh, Mitchell R. Tuinstra, Richard L. Vanderlip, and George A. Milliken. 2008. Testing Wheat in Variable Environments: Genotype, Environment, Interaction Effects and Grouping Test Locations. Crop Sci. 48: 317-330.

Schapaugh Jr., W.T., T. Todd, J. Reese, J. Diaz-Montano, J. Meng, and C.M. Smith. 2010. Registration of K1639-2 soybean germplasm resistant to soybean cyst nematode and soybean aphid. J. of Plant Registrations 4:1-3.

Lingenfelser, J.E., W.T. Schapaugh, Jr., J.P. Schmidt, and J.J. Higgins. 2005. Comparison of genotype and cultural practices to control iron deficiency chlorosis in soybean. Commun. Soil Sci. Plant Anal. 36:1047-1051.

Meis, S.J., W.T. Schapaugh, Jr. and G.A. Milliken. 2002. Relative performance of soybean in end-trimmed and plant-to-length plots. Crop Sci. 42: 700-704.

Glover, D.G., and W.T. Schapaugh, Jr. 1997. Screening of soybean for pendimethalin herbicide induced stem damage. Crop Sci. 37:358-360.

Todd, T.C., W.T. Schapaugh, Jr., J.H. Long, and B. Holmes. 1996. Field response of soybean in maturity groups III-V to Heterodera glycines in Kansas. Supple. J. Nematology 27:628-633.

Serretti, C., W.T. Schapaugh, Jr., and R.C. Leffel. 1994. Amino acid profile of high-seed-protein soybean. Crop Sci. 34:207-209.

Harris, D.W., W.T. Schapaugh, Jr., and E.T. Kanemasu. 1984. Genetic diversity in soybeans for leaf canopy temperature and the association of leaf canopy temperature and yield. Crop Sci. 24:839-842.

Bouslama, M., and W.T. Schapaugh, Jr. 1984. Stress tolerance in soybeans. I. Evaluation of three screening techniques for heat and drought tolerance. Crop Sci. 24:933-937.