

Dr. Robert L. Geneve

Abbreviated Vitae

Professor

University of Kentucky, Department of Horticulture
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EDUCATION

- Ph.D.** Horticulture, University of Minnesota, 1982-1985.
- M.S.** Horticulture, Pennsylvania State University, 1977-78.
- B.S.** Horticulture, University of Maryland, 1973-77.

PROFESSIONAL ACTIVITY

Editorship

- Associate editor – Seed Technology. 2008 to present.
- Editorial Board – Propagation of Ornamental Plants. 2003 to present.
- Science Editor, North American - Scientia Horticulturae. 2001 to 2008.
- Editorial Advisory Board - Scientia Horticulturae. 1997 to 2001.
- Associate editor – HortScience. 1994 to 1997.
- Associate editor - Scientia Horticulturae. 1994 to 1997.

Honors

- Fellow in the International Plant Propagators' Society, Eastern Region; elected 2003.
- Fellow in the American Society for Horticultural Science; elected 2005.
- George E. Mitchell Jr. Award Outstanding Faculty Service to Graduate Students; 2006.

Profession Society Officer

- International Plant Propagators' Society International Board member, 2012 to present.
- International Plant Propagators' Society Eastern Region, President, 2011.
- International Plant Propagators' Society Eastern Region, Vice President, 2008-10.
- IPPS, Eastern Region Foundation Board member 2008 to present.
- International Plant Propagators' Society Eastern Region, Board of Directors 1999 to 2001.

PUBLICATIONS

Peer-reviewed Research Publications (since 2005)

- Nambuthiri, S., A. Fulcher, A. Koeser, R. Geneve and G. Niu. 2014. Moving towards sustainability with alternative containers for greenhouse and nursery crop production: A review and research update. HortTechnology, in press.
- Geneve, R. L., D. Hildebrand, T. Phillips, N.S., Gama-Arachchige, J. Kirk and M. Al-Amery. 2014. Seed Germination and Mucilage Production in Chia (*Salvia hispanica*). Acta Horticulturae, in press
- Geneve, R.L., C.H. Finneseth , A. Poston Lentz and W. Dunwell. 2014. Invasive woody plants in the nursery industry – a review of the USA perspective and response. Acta Horticulturae, in press.
- Gama-Arachchige, N.S., J.M. Baskin, R.L. Geneve and C.C. Baskin. 2013. Identification and characterization of 10 new water gaps in seeds and fruits with physical dormancy and classification of water-gap complexes. Annals of Botany 112:69-84.
- Wood, L.A., S.T. Kester, and R.L. Geneve. 2013. The physiological basis for ethylene-induced dormancy release and germination in three *Echinacea* species (*E. purpurea*, *E. tennesseensis*, and *E. simulata*). Scientia Horticultureae 156:67-72.
- Gama-Arachchige, N.S., J.M. Baskin, R.L. Geneve and C.C. Baskin. 2013. Quantitative analysis of the thermal requirements for stepwise physical dormancy-break in seeds of winter annual *Geranium carolinianum* (Geraniaceae). Annals of Botany 111:849-858.
- Finneseth, C.H. and R.L. Geneve. 2012. Physical enhancement improves seed lot quality in eastern gamagrass (*Tripsacum dactyloides*). Acta Horticulturae 938:69-75.
- Fulcher, A. and R.L. Geneve. 2012. Using the relationship between container substrate moisture and photosynthesis to schedule irrigation in *Hibiscus rosa-sinensis*. Scientia Horticultureae 138:221-226.
- Gama-Arachchige, N.S., J.M. Baskin, R.L. Geneve and C.C. Baskin. 2012. The autumn effect: timing of physical dormancy break in seeds of two winter annual species of Geraniaceae by a stepwise process. Annals of Botany 110:637-651.
- Finneseth, C.H. and R.L. Geneve. 2012. A standard laboratory method to assess purity and germination in eastern gamagrass seed lots. Seed Technology 34:89-109.
- Fulcher, A. and R.L. Geneve. 2011. Relationship between photosynthesis and substrate moisture for container-grown *Hibiscus* and *Cornus*. Acta Horticulturae 922:183-186.
- Jamboonsri, W., T. D. Phillips, R. L. Geneve, J.P. Cahill and D.F. Hildebrand. 2012. Extending the range of an ancient crop; a new ω 3 source. Genetic Resources and Crop Evolution 59:171-178.
- Paparozi, E.T., A. W., Kimberly, R.L. Geneve, H. Hatterman-Valenti, C. Haynes, H. Kraus, C. Mc Kenney and P. Pitts. 2011. The AG*IDEA alliance and horticulture graduate certificate programs. HortTechnology 21:688-691.
- Gama-Arachchige, N.S., J.M. Baskin, R.L. Geneve and C.C. Baskin. 2011. Acquisition of physical dormancy and ontogeny of the micropyle-water gap complex in developing seeds of *Geranium carolinianum* L. (Geraniaceae). Annals of Botany 108:51-64.
- Fulcher, A., T. Steele, E. Wilkerson, R.L. Geneve, and R. S. Gates. 2011. Using transpiration chambers to detect initial transpiration in cuttings and quantify transpiration in seedlings. Acta Horticulturae 893:1037-1042.

- Gama-Arachchige, N.S., J.M. Baskin, R.L. Geneve and C.C. Baskin. 2010. Identification and characterization of the water gap in physically dormant seeds of Geraniaceae, with special reference to *Geranium carolinianum* L. *Annals of Botany* 105:977-990. Invited as part of a special issue section on seeds "The Capacity of Seeds to Germinate and Survive".
- Jayasuriya , K.M.G., J. M. Baskin, R. L. Geneve, and C. C. Baskin. 2009. Sensitivity cycling and mechanism of physical dormancy break in seeds of *Ipomoea hederacea* (Convolvulaceae). *International Journal of Plant Sciences* 170:429-443. 2009.
- Geneve, R.L. 2009. Physical seed dormancy in selected Caesalpinoid legumes from eastern North America. *Propagation of Ornamental Plants* 9:129-134.
- Jayasuriya, K.M.G., J.M. Baskin, R.L. Geneve, and C.C. Baskin. 2009. A proposed mechanism of physical dormancy break in sensitive and insensitive seeds of *Ipomoea lacunosa* (Convolvulaceae). *Annals of Botany* 103:433-445.
- Jayasuriya , K.M.G., J. M. Baskin, R. L. Geneve, and C. C. Baskin. 2009. Phylogeny of seed dormancy in Convolvulaceae, subfamily Convolvuloideae (Solanales). *Annals of Botany* 103:45-63.
- Jayasuriya , K.M.G., J. M. Baskin, R. L. Geneve, C. C. Baskin, and C. Chien. 2008. Physical dormancy in seeds of the holoparasitic angiosperm *Cuscuta australis* (Convolvulaceae, Cuscutaceae): Dormancy breaking requirements, anatomy of the water gap and sensitivity cycling. *Annals of Botany* 102: 39 - 48.
- Geneve, R.L., L. Wood, and S.T. Kester. 2008. The relationship between ethylene production and dormancy release in *Echinacea* seeds. *Acta Horticulturae* 771:33-35.
- Geneve, R.L. 2008. Vigor testing for small-seeded horticultural crops. *Acta Horticulturae* 782:77-82.
- Klein, J.D., L.A. Wood, and R.L. Geneve. 2008. Hydrogen peroxide induced germination in gama grass (*Tripsacum dactyloides*). *Acta Horticulturae* 782:93-98.
- Geneve, R.L. and *M. Dutt. 2008. Using sequential images to study seed germination and dormancy. *Propagation of Ornamental Plants* 8:13-16.
- Geneve, R.L., S.T. Kester, and K.W. Pomper. 2007. Autonomous shoot production in pawpaw [*Asimina triloba* (L.) Dunal] on plant growth regulator free media. *Propagation of Ornamental Plants* 7:51-56.
- Jayasuriya, K.M.G., J.M. Baskin, R.L. Geneve, and C.C. Baskin. 2007. Seed development in *Ipomoea lacunosa* (Convolvulaceae), with particular reference to anatomy of the water gap. *Annals of Botany* 100:459 - 470.
- Jayasuriya, K.M.G., J.M. Baskin, R.L. Geneve, and C.C. Baskin. 2007. Morphology and anatomy of physical dormancy in *Ipomoea lacunosa*: Identification of the water gap in Convolvulaceae (Solanales). *Annals of Botany* 100:13-22.
- Dutt, M. and R.L. Geneve. 2007. Time to radicle protrusion does not correlate with early seedling growth in individual seeds of impatiens and petunia. *Journal of the American Society for Horticultural Science* 132:423-428.
- Geneve, R.L., S.T. Kester, and K.W. Pomper. 2007. Cytokinin habituation for autonomous shoot initiation in pawpaw (*Asimina triloba*). *Acta Horticulturae* 738:371-374.
- Berberich, S., J. Snyder, R.L. Geneve, and M. A. Williams. 2006. Growth and flowering response of container grown passion flower cultivars to fertilizer and paclobutrazol. *Journal of Environmental Horticulture* 24:109-114.
- Geneve, R.L. 2005. Comparative adventitious shoot induction in Kentucky coffeetree root and petiole explants treated with thidiazuron and benzylaminopurine. *In Vitro Cellular and*

Developmental Biology – Plant 41:489-493.

- Wilkerson, E.G., R.S. Gates, S. Zolnier, S.T. Kester, and R.L. Geneve. 2005. Predicting rooting stages in poinsettia cuttings using a root zone temperature-based model. *Journal of the American Society for Horticultural Science* 130:295-301.
- Wilkerson, E.G., R.S. Gates, S. Zolnier, S.T. Kester, and R.L. Geneve. 2005. Transpiration capacity in poinsettia cuttings at different rooting stages and the development of a cutting coefficient for scheduling mist. *Journal of the American Society for Horticultural Science* 130:302-307.

Books (since 2005)

- Hartmann, H.T., D.E. Kester, F. T. Davies, Jr., and R. L. Geneve. 2011. *Hartmann and Kester's Plant Propagation: Principles and Practices*. Prentice-Hall, Inc., Englewood Cliffs, New Jersey. Eighth edition.

Book Chapters (since 2005)

- Geneve, R.L. 2010. Propagation from non-meristematic tissues - Organogenesis. In: *Plant Cell Culture, Development and Biotechnology*. R.N. Trigiano and D. J. Gray (eds.). CRC Press, LLC, Boca Raton, Florida. pp. 243-256.
- Geneve, R.L., *M. Dutt, and A.B. Downie. 2006. Development of a sequential digital imaging system for evaluating seed germination. In: S. Navie, S. Adkins and S. Ashmore (eds.). *Seeds: Biology, Development and Ecology*. CAB International. London. p.p.315-323.
- Geneve, R.L. 2005. Vigor testing in flower seeds. In: M.B. McDonald and F. Kwong (eds.). *Flower Seeds, Biology and Technology*. CAB International, London. p.p. 311-332.

Proceedings and Industry Publications (since 2005)

- Nambuthiri, S., R. Geneve and A. Fulcher. 2013. Evaluating irrigation scheduling based on daily evapo-transpiration or plant demand of container grown woody plants. *Proceedings of Southern Nursery Association Research Conference* 58:290-292.
- Fulcher, A., G. Niu, G. Bi, M. Evans, T. Fernandez, R. Geneve, A. Koeser, S. Nambuthiri, N. Pershey, R. Stewart, S. Verlinden, and X. Wang. 2013. Pulp or plastic. *American Nurseryman*, Feb. pp. 20-24.
- Fulcher, A., G. Niu, G. Bi, M. Evans, T. Fernandez, R. Geneve, A. Koeser, S. Nambuthiri, N. Pershey, R. Stewart, S. Verlinden, and X. Wang. 2012. Assessing biocontainers and a sustainable irrigation regime for the US nursery industry. *Proceedings of Southern Nursery Association Research Conference* 57:73-77.
- Nambuthiri, S., R. Geneve, T. Fernandez, A. Fulcher, A. Koeser, G. Bi, M. Evans, G. Niu, N. Pershey, R. Stewart, S. Verlinden, and X. Wang. 2012. Substrate heat buildup and evaporation rate differs between plastic and alternative one gallon nursery containers. *Proceedings of Southern Nursery Association Research Conference* 57: 60-62.
- R.L. Geneve. 2010. Morphological characteristics of seeds with physical dormancy. *Combined Proceedings International Plant Propagators' Society* 60: 610-613.
- Stevens, M.E., S.T. Kester and R.L. Geneve. 2009. Adventitious root formation in poplar (*Populus*) intermodal stem cuttings grown in vitro. *Combined Proceedings International Plant Propagators' Society* 59: 529-532.

- Steele, T., A. Fulcher, R. Gates and R.L. Geneve. 2009. Designing a growth chamber to monitor transpiration. Proceedings of Southern Nursery Association Research Conference 54:111-114.
- Fulcher, A. and R.L. Geneve. 2009. *Cornus*, gas exchange, and drought. Proceedings of Southern Nursery Association Research Conference 54:22-27.
- Fulcher, A., R.L. Geneve, J. Buxton, and R. Gates. 2008. The Relationship between photosynthetic activity, container moisture and growth in *Hibiscus rosa-sinensis* L. Proceedings of Southern Nursery Association Research Conference 53:549-552.
- Poston, A., A. Fulcher, W. Dunwell, L. Dougherty, and R.L. Geneve. 2008. Fascination increases growth of 'Rudy Haag' burning bush during container production. Proceedings of Southern Nursery Association Research Conference 53:501-505.
- Geneve, R.L. and M. Dutt. 2008. A closer look at seed germination and dormancy. Combined Proceedings International Plant Propagators' Society 58: 561-565.
- Senn, M., A. Fulcher, and R.L. Geneve. 2008. Effect of physical manipulation and plant growth regulator application on branching of oak, linden, and Kentucky coffeetree. Combined Proceedings International Plant Propagators' Society 58: 399-402.
- Stolz, S., J. Beale, L. Dougherty, S. Long, A. Fulcher, and R. Geneve. 2007. Biofungicide and conventional control of *Rhizoctonia solani* in a container production system. Proceedings of Southern Nursery Association Research Conference 52:289-292.
- Geneve, R.L. 2006. Alternative strategies for clonal plant reproduction. Combined Proceedings International Plant Propagators' Society 56:269-273.
- Tittle, S., S.T. Kester, and R.L. Geneve. 2006. Somatic embryogenesis in white oak (*Quercus alba*). Combined Proceedings International Plant Propagators' Society 56:450-452.
- Kittrel, K., S.T. Kester, and R.L. Geneve. 2006. Adventitious root formation in tomato hormone mutants. Combined Proceedings International Plant Propagators' Society 56:453-457.
- Poston, A. and R.L. Geneve. 2006. Propagation of spicebush (*Lindera benzoin*). Combined Proceedings International Plant Propagators' Society 56:458-460.
- Poston, A. and R.L. Geneve. 2006. Propagation of spicebush (*Lindera benzoin*). Proceedings of Southern Nursery Association Research Conference 51:364-366. (Amy Poston received a third place finish in the Master's Student Competition).
- Tittle, S., S.T. Kester, and R.L. Geneve. 2006. Tissue culture in white oak (*Quercus alba*). Proceedings of Southern Nursery Association Research Conference 51:367-369
- Wood, L., J. Klein, and R.L. Geneve. 2006. Ethylene and seed germination in coneflower (*Echinacea*) species. Proceedings of Southern Nursery Association Research Conference 51:374-376.
- Geneve, R.L. 2005. Common misconceptions about seed dormancy. Combined Proceedings International Plant Propagators' Society 55:327-330.
- Wells, S., K., S. T. Kester, and R. L. Geneve. 2005. Somatic embryo development in willow oak. Combined Proceedings International Plant Propagators' Society 55:451-453.

Professional Presentations (since 2005)

- International Plant Propagator's Society – Eastern region annual meeting. 2012. Seed dormancy, Give your plants a wakeup call. Philadelphia, PA.
- The 6th International Symposium on Seed, Transplant and Stand Establishment of Horticultural

- Crops. Seed germination and mucilage production in chia (*Salvia hispanica*). Brazilia, Brazil. 2012.
- International Plant Propagator’s Society – Southern region annual meeting. 2010. Searching for the water gap in seeds with physical dormancy. Raleigh, NC.
- Catholic University, Santiago Chile. 2010. Advances in seed and cutting propagation.
- Twenty Eighth International Horticulture Congress. Invasive woody plants in the nursery industry – a USA perspective. 2010. Lisbon, Portugal
- New England Greenhouse Conference. 2008. Greenhouse seed germination. Boston, MA.
- Southern Region of the International Plant Propagators’ Society. 2008. A closer look at seed germination. Charlottesville, VA.
- Farwest Nursery Conference. Portland, OR. 2008. Propagation systems for greenhouse.
- Fifth International Conference on the Propagation of Ornamental Plants. 2007. Using sequential digital imaging to study seed germination. Sofia, Bulgaria.
- American Society for Horticultural Science Annual Meeting. 2007. Seed labs for plant propagation. In: Demonstration of Laboratories Used in Teaching Plant Propagation workshop. Phoenix, AZ.
- Volcani Institute. 2007. Seed vigor in small seeded crops. Israel.
- 4th International Symposium on Seed, Transplant and Stand Establishment of Horticultural Crops. 2006. Measuring vigor in small seeded crops. San Antonio, TX.
- XXVII International Horticultural Congress. 2006. The relationship between ethylene production and dormancy release in *Echinacea* seeds. Seoul, Korea.
- International Plant Propagator’s Society – Eastern region annual meeting. 2006. How plants do it. Grand Rapids, MI.
- Northeast Forestry University. 2005. Propagation short course; seven three-hour lectures. Harbin, China
- International Seed Science Symposium. 2005. Development of a sequential digital imagery system for evaluating seed germination. Brisbane, Australia.
- International Plant Propagator’s Society – Eastern region annual meeting. 2005. Misconceptions about seed dormancy. Atlantic City, NJ.
- University of Kwazulu-Natal. 2005. Seed vigor. Durbin, South Africa.

GRANT AWARDS (since 2005)

Year	Funding Source	Project	Amount
2011-13	Kentucky Landscape Industries	Comparison of photosynthesis-based irrigation scheduling with daily water replacement for nursery container production	\$10,000
2010-13	USDA - SCRI	Impact and social acceptance of selected sustainable practices in ornamental crop	\$273,345

		production. Co-PI.	
2007-9	Kentucky Landscape Industries	Promoting post-rooting shoot growth in Rudy Haag burning bush cuttings.	\$6,000
2007-8	New Crop Opportunity Center	Rudy Haag Burning Bush as a Non-invasive Alternative to Current Burning Bush Cultivars for Kentucky Nursery Production.	\$65,000
2006-8	New Crop Opportunity Center	Optimizing Pot-In-Pot Nursery Production for Kentucky Growers.	\$45,914
2006-7	Kentucky Landscape Industries	Container production of Rudy Haag burning bush.	\$3,500
2005-6	Kentucky Division of Forestry	Enhancing the native tree walk web site. Co-PI with R. Durham.	\$6,200
2005-6	Kentucky Landscape Industries	Somatic embryogenesis in white and willow oaks.	\$3,000
2005-7	New Crop Opportunity Center	Development of a novel production system for dogwood.	\$25,000
2004-5	Kentucky Landscape Industries	Novel production systems for woody plants.	\$6,000
2004-6	New Crop Opportunity Center	Rudy Haag burning bush as a non-invasive alternative to current burning bush cultivars.	\$65,781

TEACHING

Courses

PLS 320 – Woody Plant Materials, 4 credits. 2009; 2011 to present. This is a blended course with lectures on-line and two lab sections.

PLS 440 - Plant Propagation, 3 credits. 1991 to present. This course has two one hour lectures and one three hour lab.

PLS 490 – Topics in Plant and Soil Science (Capstone, HPLS Science option). 2002 – present.

PLS 622/623 - Physiology of Plants, co-teach (6 lectures), 3 credits. 1990 to present.

Graduate Advising_(since 2005)

Major Advisor

Cynthia Finneseth. 2010. Ph.D. student. Evaluation and enhancement of seed lot quality in eastern gamagrass (*Tripsacum dactyloides*).

Amy Fulcher. 2010. Ph.D. student. Modeling water use in nursery crops.

Laura Woods. 2007. M.S. student. Relationship between ethylene and seed dormancy release in *Echinacea* species.

Amy Poston. 2007. M.S. student. Cutting propagation and container production of Rudy Haag burning bush (*Euonymus alatus*) 'Rudy Haag'.