# SCOTT A. MERKLE

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## Education

Doctor of Philosophy, Virginia Polytechnic Institute and State University, 1982. Major: Forest Genetics and Tree Improvement.
Master of Science, Virginia Polytechnic Institute and State University, 1978. Major: Forest Biology.
Bachelor of Science, College of William and Mary, 1976. Major: Biology.

## Appointments

July, 1997 – present. Professor, School of Forestry and Natural Resources, University of Georgia
May, 2000 – December, 2002. Graduate Coordinator, School of Forest Resources, University of Georgia
July, 1992 – June, 1997. Associate Professor, School of Forest Resources, University of Georgia
July, 1987 - June, 1992. Assistant Professor, School of Forest Resources, University of Georgia
January, 1987 - July, 1987. Temporary Assistant Professor, School of Forest Resources, University of Georgia
April, 1984 - January, 1987. Postdoctoral Associate, School of Forest Resources, University of Georgia
January, 1983 - April, 1984. Postdoctoral Associate, Department of Forest Science, Oregon State University
September, 1976 - August, 1982. Research Associate and Research Assistant, Forestry Department, Virginia Polytechnic Institute and State University

## Selected Publications

Merkle, S.A., A.T. Wiecko, and B.A. Watson-Pauley. 1991. Somatic embryogenesis in American chestnut. Can. J. For. Res. 21:1698-1701.

Wilde, H.D., R.B. Meagher, and S.A. Merkle. 1992. Expression of foreign genes in transgenic yellow-poplar plants. Plant Physiol. 98:114-120.

Merkle, S.A., K.A. Neu, P.J. Battle, and R.L. Bailey. 1998. Somatic embryogenesis and plantlet regeneration from immature and mature tissues of sweetgum (*Liquidambar styraciflua*) Plant Science 132: 169-178.

Rugh, C.L., J.F. Senecoff, R.B. Meagher, and S.A. Merkle. 1998. Development of transgenic yellow poplar for mercury phytoremediation. Nature Biotechnology 16:925-928.

Vendrame, W.A., C.P. Holliday and S.A. Merkle. 2001. Clonal propagation of hybrid sweetgum (*L. styraciflu*a X *L. formosana*) via somatic embryogenesis. Plant Cell Reports 20:691-695.

Che, D., R.B. Meagher, A.C.P. Heaton, A. Lima, C.L. Rugh and S.A. Merkle. 2003. Expression of mercuric ion reductase in eastern cottonwood confers mercuric ion reduction and resistance. Plant Biotechnology Journal 1:311-319.

Andrade, G.M., and S.A. Merkle. 2005. Enhancement of American chestnut somatic seedling production. Plant Cell Reports 24:326-334.

Merkle, S.A., P.M. Montello, X. Xia, B.L. Upchurch and D.R. Smith. 2006. Light quality treatments enhance somatic seedling production in three southern pine species. Tree Physiol. 26:187-194.

Lyyra, S., A. Lima and S.A. Merkle. 2006. In vitro regeneration of *Salix nigra* via adventitious shoots. Tree Physiol. 26:969-975.

Lyyra, S., R.B. Meagher, T. Kim, A. Heaton, P. Montello, R.S. Balish and S.A. Merkle. 2007. Coupling two mercury resistance genes in eastern cottonwood enhances processing of organomercury. Plant Biotechnology Journal 5:254-262.

**Selected Honors, Awards and Recognitions**

Society of American Foresters Barrington Moore Memorial Award, 2007

USDA Group Honor Award for Excellence (NE-140 Project on Chestnut and Chestnut Blight), 1997

**Research Interests**

Dr. Merkle joined the University of Georgia Faculty in 1987 and is currently a Professor in the Warnell School of Forestry and Natural Resources. His lab has developed embryogenic regeneration systems for over a dozen forest tree species and hybrids, including American chestnut, yellow-poplar, black locust, sweetgum, magnolia and longleaf pine. Dr. Merkle has employed these cultures in research involving mass clonal propagation, biomass energy, genetic engineering, artificial seeds and cryopreservation. While at UGA, he has collaborated with Dr. Richard Meagher of the UGA Genetics Department to engineer forest trees with heavy metal resistance genes for use in phytoremediation.