



# Education PROfiles

By Ellen Vincent, Clemson University Environmental Landscape Specialist

In July of 2008 Clemson University hired Dr. Sarah White for the new position of Assistant Professor and Nursery and Landscape Extension Specialist. She is a member of the Horticulture Department located on campus. In her state-wide role she will focus on water quality and water quantity issues. Her Extension clientele includes SC commercial nurseries, landscape professionals, and Extension agents. Her appointment is 60% Extension work and 40% research.

Sarah White was born in Ohio but moved to Pendleton, SC at the age of nine when her father, Dick White, obtained an agricultural engineering endowed chair with Clemson University. White earned her BS in horticulture from Clemson in 2000; her MS in horticultural science from Virginia Tech in 2003; and her PhD in environmental toxicology from Clemson in 2007.

Donna Foster, Executive Director of SCNLA attended Sarah White's interview seminar at Clemson University in April. She comments, "Sarah White is very well-spoken and enthusiastic. She is going to be a delight to work with. This is also an excellent time to hire an expert on water quality and conservation, when we need it the most. It is also an advantage that she's familiar with the Clemson environment, she already knows her way around. She'll be quick to start and most productive."

Environmental toxicology, according to White, is basically studying how chemicals interact with water, soils, plants and animals. At Virginia Tech she conducted studies examining effects of both plant growth regulators and nutrition. Several of the perennials she studied include spiderwort (*Tradescantia virginiana*), coreopsis (*Coreopsis grandiflora*), black-eyed Susan (*Rudbeckia hirta*), purple cone flower (*Echinacea purpurea*), Russian Sage (*Perovskia atriplicifolia*), and variegated

artemisia (*Artemisia vulgaris*).

While working on her PhD at Clemson, White worked with Monrovia Growers at Wight's, a nursery in southern GA. She reports, "We monitored effluent from a wetland receiving runoff from 120 acres of production area. We identified specific nutrients found in the wetland and this data helped the nursery reduce their fertilization, resulting in lower nutrient losses. Their response to the research data now saves them money and helps save the environment from pollution."

White is excited by the opportunities that exist with her new position. "I'm going to focus on water quality and quantity issues here in SC. They are going to be some of the most important issues the green industry faces in the future. This work can help influence government policy and promote proactive sustainable practices. If nurseries want help determining how to manage runoff we can help you do this to avoid applying excess," she explains.

"Sustainable," according to White, "does not mean no chemicals, it means managing the chemicals you apply to minimize excess losses into the environment. Sustainable also implies cost savings to your business." She is currently creating a web page that will serve as a clearinghouse for her water management program. Topics will include irrigation, substrates, amendments, and remediation. She wants the web page to help plant nurseries identify which management strategy will help them the most. For instance, some nurseries may identify recycling irrigation water as a primary issue for them, while others may be more interested in their fertilization and runoff management practices.

White is up and running and available for conference presentations and to author articles for professional publications. SCNLA already has her lined up to speak about "Reducing and remediating chemical runoff from nurseries"

at the Nov 5<sup>th</sup> Roebuck Nursery tour. In addition, White says, "I am interested in knowing who [commercial nurseries] in the state would like to actively participate in my water management research."

Ted Whitwell, chair of the horticulture department, has known Sarah White for many years, back when she was a bachelor's student and again when she returned as a PhD student. "Sarah White is very intelligent with a lot of energy. Her knowledge of environmental measurements and chemicals is a real asset to the nursery and landscape industry. I've worked with her on research projects in the past and she is prompt and efficient with a very good work ethic. She loves all aspects of horticulture and is reliable," he reports.

White's personal interests include photography, singing, and reading. "I like garden photography and photographing natural landscapes. I absolutely love to do this." She uses a digital camera so she can play with the images using software. She also loves books. "I read all the time. My last book is *Storm Front* by Jim Butcher." White has a passion for music and sings in a quartet at her church. "I also like to sing jazz. My favorite jazz performer is Diana Krall. If I could play the piano like anyone (which I can't), it would be Harry Connick Jr. Our family gatherings in Pendleton are usually very musical. My sister plays the piano and sings and my mom sings along with us." White also admits to being a movie buff. She likes older movies like *The Great Escape* with Steve McQueen but her taste usually runs to adventure films because they are totally distracting. "*Batman Begins* is one of my favorites, and I'm thrilled that *Dark Knight* is coming out soon," she says.

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