

# Regulatory Services PROfile

Sherry Aultman, DPI

*By Ellen Vincent, Clemson University Environmental Landscape Specialist*

Protecting South Carolina's agriculture, natural resources, and economy from exotic invasive pests is Sherry Aultman's job. She works for the Clemson University Department of Plant Industry (DPI) located in Pendleton, SC. Her cooperatively supported position is largely funded by the United States Department of Agriculture (USDA). Prior to joining DPI, Aultman was Assistant Garden Manager at the South Carolina Botanical Garden from 2000-2007 and an MLA (master's in landscape architecture) student at Clemson. She is native to Pickens, South Carolina.

Sherry Aultman's title is Cooperative Agricultural Pest Survey (CAPS) Program Coordinator for invasive exotic pests in South Carolina. Exotic species are defined as species that are non-native to a given area. They may be from another country, state, ecosystem or a different local habitat according to DPI ([http://www.clemson.edu/public/regulatory/plant\\_industry/invasive\\_exotic\\_programs/](http://www.clemson.edu/public/regulatory/plant_industry/invasive_exotic_programs/)). An invasive species is typically identified by its ability to rapidly reproduce in the new environment and it tends to out-compete the native species for resources due to the absence of any natural predators and/or pests that were present in its original (native) habitat. An exotic invasive species then is defined as "a non-native species whose introduction causes or is likely to cause harm to the economy, the environment, or to human health" (Ibid).

Aultman is charged with identifying exotic invasive pests that may enter South Carolina. She does this mainly by monitoring. First, she identifies pests of concern for major crops in South Carolina. Any pest that jeopardizes commercial trade, e.g. the export of a commodity such as plant material, is considered a high risk pest of concern. She scours the government lists of "pests on the move" that are compiled by people like her in other states and countries to identify possible new pest arrivals.

Then there are reports from scientists and researchers to read to learn more about the behaviors and lifecycles of the pests that could be coming. With this information Aultman develops a risk analysis plan for pests of high concern. This involves determining how the pest might arrive or be transported into South Carolina; where it might first arrive; what type and the extent of damage it can cause; and what type(s) of interventions can be implemented to reduce the damage it could cause.

Sudden oak death (Phytophthora ramorum) is a clear "pest of concern" for the green industry, according to Aultman. Sudden oak death was identified in the early 1990s on dying oaks and tanoaks in coastal California. Since then, other types of plants have been found to be infected or associated with this disease ([http://www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/pram/overview.shtml](http://www.aphis.usda.gov/plant_health/plant_pest_info/pram/overview.shtml)). Many important ornamentals are susceptible to this disease and it is easily moved around on nursery stock.

Another monitoring tool involves trapping. She and other DPI staff set traps at strategic locations throughout the state, to allow for early detection of an invasive exotic species. Traps are currently set for the emerald ash borer (*Agrilus planipennis* Fairmaire) and light brown apple moth (*Epiphyas postvittana*). The Emerald ash borer is native to Asia and was first identified in Detroit in 2002. Insect larvae feed in the phloem and outer sapwood producing galleries that eventually girdle and kill the tree ([http://www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/emerald\\_ash\\_b/background.shtml](http://www.aphis.usda.gov/plant_health/plant_pest_info/emerald_ash_b/background.shtml)). Light brown apple moth is native to Australia and was first detected in California in 2007. It is an insect pest of both agricultural and ornamental crops. Its complete "host list" contains well over 1,000 plant species and more than 250 fruits and vegetables (<http://www.aphis.usda.gov/>

[plant\\_health/plant\\_pest\\_info/lba\\_moth/background.shtml](http://www.aphis.usda.gov/plant_health/plant_pest_info/lba_moth/background.shtml)). The light brown apple moth has no natural predators or parasites in North American and is therefore reproducing rapidly.

Visual inspections of nurseries and retail areas are yet another monitoring tool. Growers and retail nurserymen commonly sound the alarm when they notice unusual activity in their crops and Aultman or a DPI nursery inspector will collect samples and have diagnostic tests run. Phytophthora diseases are commonly identified this way. If an exotic invasive species is identified, resources for eradication are implemented and best management practices for the nursery owner/manager are made available.

In addition to monitoring, Aultman is involved in education. She, like other DPI employees, need to raise awareness so professionals and attentive residents can sound the alarm when they suspect a problem. She is hosting a program on October 14 at the Madren Conference Center in Clemson called "Phytophthoras in the Nursery Industry: How you can mitigate the damage." This program features nurserymen from South Carolina and Georgia, research scientists, and DPI operatives who demonstrate how to work together to keep exotic invasive species from jeopardizing our natural ecosystem and livelihood (see agenda and registration form in this magazine).

Aultman is a firm believer in being proactive when it comes to safeguarding the native plant species and ecosystems of South Carolina as well as its commerce capacity. "Early detection of an exotic invasive species provides us with the ability to quickly respond and either eradicate or minimize the damage it causes" she claims. "I'm from South Carolina and I love this landscape. These pests are serious and can change our landscape and industry for the worst. I do not want to see destructive change."

