

INSTITUTE OF Agriculture

News for Employees, Students & Friends

July 2006

PIGEON RIVER PROJECT NETS NATIONAL BEST PRACTICE AWARD

Look along the **Pigeon River** today, and you can find species of fish, mollusks, and snails in the riffing and generally clear water. That wasn't always the case. The Pigeon was long given up for dead due to widespread devastation caused by decades of pollution.

The dramatic turnabout for this East Tennessee river is regarded as **a national success story**, and it's brought a federal award to the **team of agencies** whose hard work is represented in the vibrant and recovering waterway. Among the partner agencies is **UT's Department of Forestry, Wildlife and Fisheries**, which, through the **Tennessee Agricultural Experiment Station**, has coordinated the efforts of the **Pigeon River Recovery Project**.

In May, at the **Environmental Protection Agency**-sponsored **National**



'Larger fish were moving back into the river, but the smaller fish, such as minnows and darters, can't go very far on their own, so we've helped them along. And we've also reintroduced snails and mussels, which don't move at all.'

Environmental Partnership Summit, the project received the **2006 Award for the Most Environmentally Beneficial Best Practice**.

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**Reporting
Training Hours**

**Fighting
Obesity**

**4-H Electricity
Camp**

See Inside

TELLING OUR SUCCESSES IN STATEWIDE OUTREACH

At the most recent University of Tennessee **Board of Trustees Meeting**, I had the privilege of reporting to the trustees about the **Institute of Agriculture's outreach activities**. This was an easy assignment as we have so many programs that touch people's lives across the state. The more difficult duty was winnowing down all the things I wanted to let them know about in the allotted time frame of 10 minutes.

I had the chance to remind them of our statewide presence with the **RECs**



Joe DiPietro

and **Extension offices**. I also mentioned our **Sun Grant initiative** aimed at helping us become more energy independent, the **Master Beef Program**, our **4-H Programs**, the **Center for Profitable Agriculture**, studies of

bio-controls for woolly adelgids in hemlocks in the Smoky Mountains, studies of forest and farm biomass for energy and bioproducts production, no-till cultivation techniques, Extension programs aimed at fighting the obesity epidemic in adults and children,

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third thursday

NEWS FROM AROUND THE INSTITUTE

The 60th Forest Products Society International Convention will be held in Knoxville on June 10-13, 2007, with UT's Tennessee Forest Products Center hosting. The center will join with Oak Ridge National Laboratory to host the 2007 Conference on Nanotechnology in the Forest Products Industry, which will piggyback on the convention. The Nanotechnology conference will be sponsored by the Forest Products Society and the Technical Association of the Pulp and Paper Industry (TAPPI).

Bob V. Conger, UT Austin Distinguished Professor Emeritus of the Department of Plant Sciences, received the 2006 Lifetime Achievement Award from the Plant Sciences Section of the Society for In Vitro Biology at its annual meeting in Minneapolis on June 4. His work led the way in biotechnological advancements for the *Poaceae* family as he developed an internationally recognized monocot tissue culture and transformation laboratory. With support from NASA, some of his experiments were performed on the space shuttle Discovery

Bruce McNeil, director of the pharmacy at the College of Veterinary Medicine, has been named president of the Society of Veterinary Hospital Pharmacists (SVHP). McNeil, who has been with the veterinary college since 1978, was instrumental in developing the curriculum for a clinical rotation the veterinary college offers to pharmacy students at the UT Health Science Center in Memphis. As more veterinarians use pharmacists for their drug needs, the collaborative goal between UT's Colleges of Pharmacy and Veterinary Medicine is to train a generation of pharmacists to serve the pharmaceutical needs of both human and animal patients.

EXTENSION COMBATS OBESITY EPIDEMIC

by Shirley Hastings, Associate Dean, UT Extension

Obesity has reached epidemic proportions. Approximately 62 percent of Tennessee adults were considered overweight or obese in 2002, according to the Centers for Disease Control and Prevention. Most of us understand that overweight and obesity are risk factors for chronic diseases such as diabetes, heart disease, and cancer. Chronic disease affects quality of life, productivity, and the cost of health care. There is no doubt adult obesity is a staggering problem in Tennessee and the United States. The cost of obesity to the state's economy was estimated to be \$1.8 billion in 2004.

So what about our children? Unfortunately children aren't doing much better than adults in the fight against overweight and obesity. The CDC reports 16 percent of kids ages 6-19 are overweight. Sixteen percent represents approximately nine million youth. About four of every 10 school-age children are at risk for becoming overweight. According to scientists, if we do not deal with this epidemic, today's younger generation will, for the first time in the modern era, experience shorter and less healthy lives than their parents.

In response to the obesity epidemic, the UT Extension Family and Consumer Sciences Department launched the statewide nutrition education and physical activity initiative, **Tennessee Shapes Up** in 2004 and a youth pilot program called **Power U** in 2006. The objective is to teach Tennesseans of all ages to achieve and maintain a healthy weight.

The Power U project was conducted in partnership with Vanderbilt University and funded by Blue Cross/Blue Shield Health Foundation of Tennessee, the Memorial Foundation, and the Farm Bureau Tennessee Farmers Insurance Companies, and Farm Bureau Rural Health Plans.

One of the greatest strengths of Tennessee Shapes Up and Power U is their capacity to reach large numbers of people in communities across the state. Extension agents, trained by Family and Consumer Sciences faculty with expertise in nutrition, health, and family relations, implement the program through a vast network of public and private partnerships.

There is no "quick fix" to the problem of overweight and obesity; however, the UT Extension FCS team is making a difference one person at a time. The combined economic benefit of these and other UT Extension nutrition education programs related to decreased health care, increased work performance, and decreased absenteeism is \$87,326,880 per year.



The Healthy Plate, used in Tennessee Shapes Up, teaches balance and portion control. The plate is visually divided into fourths—a 3-ounce serving of meat fills 1/4 of the plate, two 1/2 cup servings of vegetables fill 1/2 the plate, and one-ounce serving of whole grain fills 1/4 of the plate. Fruit and milk complete the food groups.

REPORT TRAINING HOURS AS THEY OCCUR

You've recently completed **job or career-related training through outside classes or conferences**. Now is the time to submit an interactive request form to Employee and Organizational Development to **claim the hours**.

The university's new human resources policy, **HR 128**, strongly encourages all employees to complete **a minimum of 32 hours of training** each calendar year. Courses offered through the statewide Employee and Organizational Development count, and so do ones outside of UT.

Outside ones, though, need to be reported using a downloadable PDF form available at <http://uthr.admin.utk.edu/TandD/AdditionalCredit.html>. **The form should be submitted no later than 30 days from the date the training was held.**



Close to 220 youth from across the state took part in 4-H Electric Camp. Held June

27-30 in Knoxville, the annual camp blends learning opportunities with fun. Partnerships with a variety of agencies make the program possible.



SOYBEAN RUST HOTLINE UP AND RUNNING

The toll free hotline is up and running for producers and others to call for up-to-date information about the possible spread of **Asian soybean rust** to Tennessee. The number is 877-875-BEAN (877-875-2326).

Although the fungal disease has not been confirmed in the state in 2006, experts want to be ready for a possible outbreak.

UT Extension Specialist Elizabeth Long with the **Department of Entomology and Plant Pathology** coordinates information for the hotline, updating it by 1 p.m. EDT each Monday and more frequently as breaking news occurs.

PIGEON, from page 1

Before a North Carolina-based paper mill modernized its operations and changed ownership in the 1990s, the water of the Pigeon River was stained the color of strong tea, and the river was barren of mussels and snails, two of the building blocks of healthy stream life. Fish species had dwindled from an estimated 95 to only 15 to 20, and those were pollution-tolerant species such as common carp.

With the mill's modernization, the river began to improve, and efforts to reintroduce snails and mussels from 1996 to 2000 were successful. This led to the creation of **the Pigeon River Recovery Project, a multi-agency task force whose goal is to increase the aquatic biodiversity of the Pigeon River** by establishing viable, reproducing populations of native species.

"We found that some larger fish species were moving back into the river on their own," said Larry Wilson, professor and interim head, Department of Forestry, Wildlife and Fisheries. "But the smaller fish, such as minnows and darters, can't go very far on their own, so we've

helped them along. And we've also introduced snails and mussels which don't move at all."

The work has had multiple facets, from identifying what species might have been present in the Pigeon before pollution began in 1908 to capturing and tagging species for release from other waterways in the river's drainage basin.

Biologists have tagged fish and used snorkeling and seine nets, as well as underwater cameras, to evaluate the success rates of reintroductions.

Mother Nature has also had a hand. Remnants of three tropical storms produced flash-floods with peak stream flows in the river at greater than the 500-year record. "We worried that the flooding would wash away the fish we had just released," said UT research associate Joyce Coombs. "The good news is that they survived the flood."

To date, the project has re-introduced approximately 14,000 fish in 12 different species, 145 of nine species of mussels, and 215,000 snails of six species. The plan is to continue re-introducing missing native fish, mussels, and snails until viable, reproducing populations are established.



Jersey cattle were the focus of the day June 29, when the UT Dairy Research and Education Center hosted a joint meeting of the American Jersey Cattle Association and National All-Jersey groups. About 400 adult and youth participated in tours, meetings, and presentations at the Lewisburg center.

July 16, **CVM Alumni Reception**
<http://avmaconvention.org/>

August 8, **CVM VSW Pet Loss Support Group**
www.vet.utk.edu/socialwork/

August 9-12, **CVM ACVO Certifying Exam**
www.acvo.org/calendarshortframe.htm

August 10, **Turfgrass Research Field Day**
<http://knoxville.tennessee.edu/>

SUCCESS IN STATEWIDE OUTREACH, *from page 1*

the treatment of patients in our **Veterinary Teaching Hospital**, the college's **Human-Animal Bond in Tennessee** (HABIT) and **Companion Animal Initiative of Tennessee** (CAIT) programs, and the impacts that UTIA has on the lives of Tennesseans on a daily basis.

Preparing for my talk was fun, made me proud, and gave me the opportunity to reflect on all the wonderful things we do to improve lives and solve problems through our education, research, Extension, and service programs

that advance plant, animal, human, environmental, and economic well-being. My sense is that the trustees came away from my presentation impressed with not only the broad nature of all we do but also the important and meaningful ways we connect with the citizens of the state. Thanks for all you do in your role as a member of the UTIA team to impact the lives of Tennesseans on a daily basis positively in so many different ways.

All the best,

Joe

TOBACCO, NO-TILL FIELD DAYS AHEAD

The expected release of a new burley variety with higher levels of black shank- and blue mold-resistance will be one of the discussions featured at the **UT Tobacco and Forage Production Field Day** at the **UT Research and Education Center at Greeneville on July 20**. The event runs from 8 a.m. to 12:30 p.m. EDT and is followed by lunch.

Crop variety trials and equipment demonstrations will be among the highlights of the **24th Milan No-Till Crop Production Field Day** on July 27 at the **UT Research and Education Center at Milan**. The field day is among the best known and most attended no-till events in the nation, and is expected to attract no-till production advocates and agribusinesses from across the region.

Both events are sponsored by the **Tennessee Agricultural Experiment Station**.

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 Send comments and suggestions to Margot Pantalone, mpantalo@utk.edu
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The University of Tennessee
 INSTITUTE OF AGRICULTURE
 101 Morgan Hall
 Knoxville, TN 37996-4505