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Third Thursday

University of Tennessee Institute of Agriculture  
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5-2010

## Third Thursday 5-2010

Institute of Agriculture

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Joe DiPietro

## From Vice President DiPietro

**Impacting Lives. Transforming Tennessee. For 100 years UT Extension and its 4-H Youth Development program have done just that. They've served the state's**

**citizens when times were good and when they were not.** Their work during two World Wars, a pandemic, and in forming boy's corn clubs and girl's canning clubs to preserve food for winter months is only a slice of their mission and accomplishments in their first 100 years.

This year we honor all that they've achieved. UT Extension is the university's direct link to Tennesseans in fulfilling our land-grant mission. Extension is the community-based organization that is the "front door" to the university across the state to serve and solve local needs. Its foundation is a statewide network of agents and specialists and research-based information generated by extension specialists and scientists with AgResearch.

During 4-H Congress, friends and supporters of Extension and 4-H gathered for a reception and celebration of Extension's impact on the state over 100 years. It is reassuring to know that Extension and UTIA have such a broad support from across the state.

A Centennial commemorative book is online, and copies have been sent to Extension county and regional offices. You can view it at <http://tinyurl.com/29cb4oz>. I think you'll agree that it is an excellent publication that tells Extension's journey in a very special way.

Extension's educational programs met the real needs of the past, are as relevant today, and will meet critical societal needs of the future.

Whether helping obese children and adults exercise more and make better food choices, working with families in financial crisis to allocate their resources more effectively, or helping farmers and community leaders make more sustainable economic and environmental choices, UT Extension continues to respond to the needs of Tennesseans.

All the best,

## Grants & Contracts

First quarter grants and contracts are on the Web at <http://agriculture.tennessee.edu/publications/tt/>.

## Hodges' Fulbright will take him to Slovenia

**Congratulations to Donald Hodges, professor in the College of Agricultural Sciences and Natural Resources' Department of Forestry, Wildlife and Fisheries.**

Hodges, who holds the title of James R. Cox Professor of Forest Economics and Policy, has been awarded a Fulbright Fellowship for the 2010-2011 academic year. His Fulbright appointment will take him to Slovenia, where he will teach and conduct research at the University of Ljubljana Department of Forestry and Renewable Forest Resources and at the Jozef Stefan Institute. His teaching responsibilities will include a

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*Attending a reception kicking off Extension and 4-H's Centennial are L to R: Dawn Smith, Vice Chair, Extension Advisory Council; Jan Simek, UT Interim President; Elaine Lovelace, Chair, Extension Advisory Council; Joe DiPietro, Vice President for Agriculture.*

## Hodges, Cont.

graduate course in private forest management that he plans to continue with students at the University of Tennessee and Ljubljana after returning to the U.S.

He will work with researchers at both institutions to explore the linkages between land management activities, biodiversity, and ecosystem services, and to identify management approaches that are likely to enhance landscape-level collaboration among private forest landowners. Ecosystem services are the benefits that people obtain from ecosystems, including nutrient and water cycling, climate regulation, and the provision of food and water. The work will result in a better understanding of how land management activities affect ecosystem services on private lands, as well as insights into improved mechanisms to encourage landowners to provide such services.



Donald Hodges

“The prestigious award is not only an honor for Don, but also reflects the high level of scholarship within the Department of Forestry, Wildlife and Fisheries, and the Institute of Agriculture,” said Keith Belli, head of the Department of Forestry, Wildlife and Fisheries.

## Do High Base Resources Guarantee Research Excellence?



Bill Brown

### Do Low Base Resources Lead to Loss of Mission? Where Does Tennessee Fit In?

by Bill Brown, Dean and Director, UT AgResearch

Base resources (state and federal appropriated) are essential for land-grant institutions to accomplish their mission. Economies of scale exist in the university structure, with a minimum level of base resources required to support infrastructure needs such as laboratory and field facilities, independent of the number of departments or faculty at the institution. Institutions with low base resources must spend a higher percentage of their resources on basic infrastructure needs, which impacts their ability to build excellence into their programs. We must continue to seek ways to increase our base resources to the highest level possible, which leverages value from state and federal funding above that needed for basic infrastructure to meet our mission of service for the public good.

Data from USDA-CRIS along with state budget information shows that Tennessee ranks 10th out of 13 southern states in total base funding (\$33.8M), ahead of only Mississippi State (\$28.3M), Auburn (\$21.8M), and Clemson (\$14.2M). Further, Tennessee ranks 10th out of 13 southern states as a percentage of total state budget allocated to the Agricultural Experiment Station (0.111% of the state budget). As a comparison, approximately 0.305 percent of the Arkansas state budget and 0.180 percent of the Louisiana state budget is allocated to their Experiment Stations. If we were funded at the same percentage of the state budget as in Louisiana, we would be able to add an additional 40 to 50 faculty lines.

Low base funding requires UT to allocate a greater amount of its base funding per faculty FTE (\$378K) as compared to institutions with higher base funding. Tennessee ranks 3rd out of 13 states in the southern region in appropriated funding per faculty FTE, behind North Carolina State (\$406K) and Oklahoma State (\$393K). However, other institutions with similar total base funding allocate somewhat lower amounts of base funding on a per FTE basis (base funding; base funding per faculty FTE): Kentucky (\$36.9M; \$312K), Mississippi State (\$28.3M; \$355K), Illinois (\$30.7M; \$214K), Kansas State (\$37.6M; \$204K), and Missouri (\$30.4M; \$266K).

Total grant expenditures in 2008 by Tennessee AgResearch faculty (\$10.3M) and expenditures per faculty FTE (\$118K) placed Tennessee 12th out of 13 southern states, ahead of only Auburn (\$7.4M and \$77K). Institutions of high national regard such as those on the US News and World Report list of the top 25 public universities have greater levels of grant expenditures (total expenditures; expenditures per faculty FTE): Illinois (\$29M, \$201K), Purdue (\$58M, \$317K), Florida (\$62M, \$152K), Michigan State (\$67M, \$334K), Georgia (\$42M, \$210K) and Wisconsin (\$82M, \$482K).

High levels of base appropriated funding are necessary for UTIA to meet its mission. However, high levels of base funding, per se do not necessarily lead to research excellence. High producing institutions have developed a culture of execution and accountability across all their programs. The respected institutions noted above were selected from the U.S. News and World Report rankings. Data are available for

every land-grant institution if other comparisons are desired. UTIA AgResearch must maintain a strong level of appropriated funding per faculty FTE to attract and retain top faculty and to ensure that we maintain focus on our land-grant mission of service for the public good. UTIA has a strong history of excellent service to our statewide clientele and we must maintain that focus. At the same time, we have significant opportunity to enhance our grantsmanship efforts which are consistent with our mission.

## Visiting with Alumni and Friends

**Vice President DiPietro and the Institute's development staff are meeting with our alumni and friends across the state.**

The Institute of Agriculture has held several small informational group meetings across the state as part of the "Campaign for Tennessee." The goal is to give DiPietro an opportunity to meet alumni and friends. Gatherings have been held in Clarksville, Columbia, Crossville, Dyersburg, Jackson and Murfreesboro. Mr. and Mrs. Bill Latimer hosted a group of alumni and friends at their home in Sarasota, Florida, in early March as well.

These events are essential for the Institute of Agriculture to connect with alumni and friends in various areas of our state and across the country. DiPietro said, "There are many measures used to benchmark universities; some include graduation rates, external grant funding, student to faculty

ratios, and placement rates of graduates. Another very important measure of great universities is the continued interest alumni and friends have in our programs. There is no doubt from several meetings we have held across the state that our alumni and friends care a great deal about us. This tremendous and heartfelt interest in our programs is essential to our continued success and assures greater recognition of our accomplishments."

Events are currently being planned for several other areas for 2010 including Chattanooga, Franklin, Nashville and Somerville. There are two essential elements of these events. The first is to have a good attendance, and the second is identifying and inviting individuals and company representatives who can help the Institute in a variety of ways. We need your recommendations on areas in which events with DiPietro should be held, and individuals who need to be invited. If you know of someone across the state who should attend an event like this, or a cluster of alumni and friends in another state, please contact Rhodes Logan (865-974-1928 or [wlogan@utk.edu](mailto:wlogan@utk.edu)) in the Development Office. We appreciate your assistance in connecting with our alumni and friends. – *Rhodes Logan*



## Spring brings showers, flowers and awards

**Our students have won a bevy of awards, from Food Technologists competitions to the Exhibition of Undergraduate Research and Creative Achievement (EUR&CA).** You can read about their accomplishments at <http://www.casnr.utk.edu>. Also visit Chancellor Cheek's Web site where you can find descriptions of students, faculty and staff recipients who were recognized this spring. The path to that is <http://chancellor.utk.edu/honorsbanquet/2010>. Many students were recognized for their scholastic achievement by Tennessee's chapter of the international agricultural honor society, Gamma Sigma Delta. Their website is linked to CASNR's home page.

## Launching better beans in Liberia

Last fall, a market specialist from Liberia spent two months in the U.S. examining how the cocoa industry in her country could be transformed from farm gate to point of sale. Assistant Professor Michael Wilcox of Agricultural and Resource Economics served as Demanie Musu Flomo's mentor and trip coordinator. You can explore Flomo's findings at the Trend website maintained by Agricultural Economics: <http://trend.ag.utk.edu/liberia.html>. She will also be featured in the spring issue of *Tennessee Land, Life & Science*.

## Tracking A Deadly Virus

A killer virus is attacking amphibians native to Tennessee's Great Smoky Mountains National Park.

Researchers with UT's Institute of Agriculture are studying the impact of the virus and looking to help the species most vulnerable. These creatures are critical to one of the world's most diverse ecosystems.

On an April field trip, Forestry, Wildlife and Fisheries Associate Professor Matt Gray and his students find the salamanders easy to find and hard to catch. A quick scoop of the net, sort through the mud and rocks, and the students made a successful capture. This slippery little sucker is a black belly salamander.

The southern Appalachians are home to the greatest diversity of salamanders on the planet, with more than 30 species in the Tennessee Smokies alone. That's for now; the future doesn't look so good for the salamander.

"Currently there are about 43 percent of the amphibians globally that are declining. About 33 percent of amphibians are at risk of extinction, and that's two to three times higher than birds or mammals," Gray says. Those are bothersome numbers to the researcher.

Gray teaches a College of Agricultural Sciences and Natural Resources class called "Amphibian Ecology and Conservation." The students' assignment is to turn over rocks and logs and find as many salamanders as they can.

They gather back at the trailhead and identify them. The first thing students do is look at the shape of the tail. But this is far from just catching critters for fun. The UT team is extracting DNA from salamanders by taking a little snippet of tail, which will grow back.

They're looking for ranavirus, which causes more amphibian die-offs than any other pathogen in the U.S. "More die-offs from ranavirus are occurring now than to our knowledge ever before," Gray says. "So we're building baseline information on the species that are infected."

"Each site studied by the UT team has different species, and early research has documented that higher infection rates are happening at lower elevations." But the experts say that no matter how high you climb into the mountains, wildlife is vulnerable to the ranavirus.

Students like Wildlife major Lacy Rucker believe they can have an impact here—helping these creatures to survive. "I think it's important because amphibians are environmental indicators. So if something is messed up in the environment, they're

going to be the first guys to tell you something is wrong."

Clearly something is wrong with our amphibian population, and the question becomes can we make it right? This catch, clip and release project looks to protect a beautiful ecosystem by making sure some of its inhabitants stay healthy.

UT AgResearchers have also documented the virus is killing amphibians in Knox County and at Cades Cove in the Smoky Mountains. Seven frog and salamander species have been affected. —*Chuck Denney*

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*One captured by the students is a Blue Ridge Two-lined Salamander.*

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