

MTSU School of Agribusiness & Agriscience

(615)898-2523 • www.mtsu.edu/abas

Stories and Pictures by ABAS Faculty, Staff and Students
Compiled by Dr. Warren Gill

Revised and Published by Dr. Jessica Carter and Mrs. Kym Stricklin

2010-11 Was a Great Year for ABAS

Warren Gill, Director
MTSU School of Agribusiness
and Agriscience (ABAS)

This has been a great year for the Ag School at MTSU!

Two years ago, the program was challenged when a committee suggested that budget woes could be solved by selling the MTSU Farm Laboratories. Students, faculty, alumni and friends rallied and our administration responded. Now we are in the midst of a 4.4 million dollar farm improvement program, highlighted by a 2.7 million dollar dairy.

The Horse M.S. was initiated in the Spring semester of 2011 with approximately 10 students expected by Fall Semester.

The student gardens and nursery are developing nicely, primarily due to Ag Enhancement funds from the Tennessee Department of Agriculture.

Other highlights:

- With an official enrollment of 474 majors in the Fall of 2010, the School of Agribusiness and Agriscience continues to set new records for enrollment.
- Faculty generated over a half million dollars in grants.
- Ag Ed's dual credit program added an Ag Leadership course and continued to offer Greenhouse Management Course and Ag Business, giving high school students even more contact with ABAS.
- The Horse Judging Team won two major contests. The Equitation Team also had a very successful year, as did the Dairy Products Evaluation Team.
- We had a successful Fall Field Day, with over 170 in attendance.
- Raiderfest, where High School Ag students visit the Ag School and attend a football game, was held before the North Texas game and 135 students participated.
- Ag Career Day drew a dozen employers from across the state to interview dozens of ABAS upperclassmen. Good news: more jobs this year!

For information about the Horse Science program, visit:
<http://frank.mtsu.edu/~horsesci/>

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New Dairy Breaks Ground

Ground breaking on the new \$4.4 million dairy project was Monday, November 15, 2010.

This is going to be a state-of-the-art dairy with an 8 x 8 parallel milking parlor. MTSU is the only school in the south where students milk the cows and process the milk for students to drink in the campus dining areas.

Students will learn to milk cows in this excellent facility, but the real purpose is to prepare our students for employment in the growing fields of food processing and food safety.

An estimated 75 to 100 people attended the ground breaking event.



Third MTSU Agricultural Field Day Shines

MTSU's School of Agribusiness and Agriscience (ABAS) hosted a September Field Day which was attended by over 150 people on the new MTSU Agricultural Laboratory farm on Guy James Road.

Highlights included a tour of the student gardens and nursery led by Dr. Nate Phillips and Dr. Warren Anderson, a demonstration of the new geothermal vegetable cooler led by student Daniel Messick, a beekeeping / honey demonstration led by Mr. Ed Holcombe, and a tour of newly established native warm season grasses and alfalfa by Tim Redd and Danny Troup.

The Tennessee Department of Agriculture's Tennessee Ag Enhancement Program (TAEP) was featured. John Hood, former State Representative and current MTSU Director of Community Engage-

ment and Support, kicked off the event by introducing Commissioner of Agriculture Terry Oliver. Oliver pointed out the important role of the millions of dollars that the Tennessee Ag Enhancement Program has played in improving Tennessee's competitiveness in the agricultural economy.

A special event was the presentation of an Appreciation Award to former Commissioner of Agriculture, Ken Givens. The award was a certificate indicating that the faculty and staff of the School of Agribusiness and Agriscience were donating \$300 to Commissioner Givens favorite charity, Tennessee School Health Coalition.

Sponsors of the event were very important. They included: Bob Parks Auction (Andy Higgins), Cargill-Nutrena (Nathan Hillis), CPC

Commodities (Jody Blankenship), Farm Credit Services (Jim Clark), Hooper Supply (Bruce Hooper), Intervet / Schering Plough (Beth Jones), Precision Air (Jackie Beeler), Rutherford County Farm Bureau (Marvin Whitworth), Rutherford Farmer's Co-op (John Henderson and Brian Ladd), Tennessee Farmer's Co-op (Keith Harrison), Tri-Greene / John Deere, (Richard Miller and Davey Britton).

Rutherford Extension Agent, Mitchell Mote, assisted with several aspects of the program, including planning, implementation of the warm season grasses demonstration, assistance with weighing the alfalfa and they provided the sound system.

Commissioner of Agriculture Terry Oliver pointed out the important role of the millions of dollars that the Tennessee Ag Enhancement Program has played in improving Tennessee's competitiveness in the agricultural economy.



Lots of food was, again, a Field Day highlight.

2011 Ag Field Day

Plan now to attend the next Field Day starting at 4 pm on Thursday, September 15. You will be pleasantly surprised at the changes since last year!

Raiderfest is Best—Again

The Fourth annual Raiderfest was the best yet. The event, hosted by the MTSU School of Agribusiness and Agriscience (ABAS) and organized by the ABAS Student Council, welcomed 135 high school agriculture students from across the state.

Raiderfest gave future agriculture students the opportunity to attend agriculture seminars, visit the MTSU Campus, and tour some of the farm laboratories. It also gave them the opportunity to meet and greet MTSU ABAS faculty and various student clubs and organizations.

For the second year, TSC was the major sponsor, buying \$1200 worth of tickets for students who attended the event. TSC also provided gift bags and really "neat" ag magnet stick-ups.

The students also got to participate in the MTSU Cruise-In, where antique and show cars and trucks were featured for public display and voting for the top entries.

Most of all, the students who joined in Raiderfest had fun. ABAS students organized numerous events and treated the students and other guests to hamburgers, hot dogs and all the trimmings and capped the day with a very exciting football game versus North Texas.



MTSU students Andy Pack and Lauren Jordan show their Blue Raider pride.

School of ABAS Awards Most Scholarships Ever

In 2011, the School of Agribusiness and Agriscience (ABAS) awarded **\$47,535** in Scholarships. This is the most that has ever been awarded.

Four new scholarships were presented in 2011 because of Endowments honoring Joe Jack and Jerry Dement and Dr. Robert R. (Bob) Garrigus. Two new Endowments were also announced: the Jerry Williams and Carolyn Gill Scholarship Fund Endowments. Donations are currently being accepted to build all of these endowments so that additional scholarships may be awarded in the future.

The MTSU Ag Scholarship Program awarded almost \$50,000 in scholarships to 47 ABAS students for 2011-12.

Upperclassman Ag Scholarships.

A total of **\$30,035** in scholarships were awarded to **27 upperclassman** Agriculture Students. The Scholarships and winners were:

Adams Family Scholarship:

Lacey Parchman and Andy Pack

Boxwood Farm Scholarship:

Dalton Pate, who also received *Cheatham County Cattleman's Scholarship*

Tennessee Farmers Coop Scholarship:

Holly Baggett
Kelsie Graham
Lauren Jordan
Julie Ozburn

Agriculture Endowment Scholarship:

York Bennett
Victoria Harrison
Kolby Wyant

Hayden Memorial Scholarship:

Emily Kopko

Fowler & Ruth Nickle Scholarship:

Eric Limbird

Thrush-Thompson Scholarship:

Sarah Norman

Hugh Burrum Scholarship:

Ellen Goertzen
Will Lowe
Megan Pohl

Heritage Farm Scholarship:

Carrie Major; Carrie is also the recipient of the *Dairy Science Club Scholarship*

Theodore Bigger Scholarship:

Daniel Messick

TN Council of Coops Scholarship:

Jimmy Joe Bryan

Joe Jack & Jerry Dement Scholarship:

Abby Burger

Robert R. Garrigus Scholarship:

Samantha Southard

Robert Jarrell Memorial Scholarship:

Jenny Roth

Mark Moskovitz Scholarship:

Amanda Meade

Catherine Ellington Scholarship:

Carol Laine

Robert Alexander Scholarship:

Jessica Wilson

Freshman Agriculture Students.

A total of **\$9,500** has been awarded to **9 incoming Freshmen:**

TN Farmers Cooperative Scholarship:

Haley Cobb

Farm Credit Services Scholarship:

Amy Cook
Michaela Jones

Rehabilitation Corporation of TN:

Arial Bolinger
Cassandra Dilley
Kaylee Leydens
Katie Richey

Dr. Bob Garrigus Scholarship:

Lauren Berner

Joe Jack & Jerry Dement Scholarship :

Caleb Boyce

2011 Horse Science Scholarships:

The Horse Science program presented **\$8,000** in scholarships to **11 students:**

Outstanding Non-Horse Science Majors

Freshman – Stephanie West
Sophomore – Alina Carter
Junior – Kate Burdette
Senior – Stephen Poore

Outstanding Majors

Freshman – Jennifer Vaughn
Sophomore – Anna Caruso
Junior – Carol Laine
Senior – Megan Hephner

Sam Paschal Award

Dannie Lowrey

Kitty Adams Scholarships

Kasie Caldwell
Jessica Moore

ABAS Scholarship Applications Online

Scholarships in the School of Agribusiness & Agriscience are available to students majoring in some phase of Agriculture. Scholarships are awarded on the basis of specific requirements of the donor, academic performance (grade point average), financial need, and student involvement in extracurricular activities. Upperclassman applications **DUE March 5** and Freshman applications **DUE April 1**, annually.

Go to www.mtsu.edu/abas

SPOTLIGHT

Hannah Grace Matzkiw, of Marshall County, is the recipient of the Tennessee Nursery & Landscape Association's annual Memorial Scholarship. Hannah is pursuing her Bachelors degree in Plant and Soil Science, with a minor concentration in Business Administration.

The TNLA Memorial Scholarship Fund consists of contributions from some of the most prestigious people in the nursery world as well as memorials honoring the pioneers in Tennessee's plant industries.

Hannah is married and living in Chapel Hill, Tennessee, and is the current Assistant Retail Manager of Bear Creek Gardens and Landscaping where she has been employed for three years. She is the daughter of Mr. and Mrs. T. Shane Petty of Chapel Hill, and Ms. Jill White of Columbia.

2011 Agribusiness and Agriscience Job Fair Was Best Yet!

The MTSU career fair for Agriculture students, held in March, was a success! The employers were recruiting students for Ag Business, Plant Science and Animal Science positions, as well as for internships and graduate school opportunities.

The event lasted only 4 hours and was busy the entire time. Students, dressed and groomed for the occasion, kept the exhibitors occupied with a constant barrage of questions and a shower of fresh resumes.

The Ag Career Day was sponsored by the Student Agriculture Council, the staff and faculty of the School of Agribusiness and Agriscience, and the MTSU Career Development Center.

The evening before the job fair, students from Dr. Gill's Ag in Our Lives class, along with a group of graduating seniors, participated in a Career Fair Workshop and Etiquette Dinner sponsored by Farm Credit Services.



Nicole Green from the MTSU Career Development Center and Dr. Katie Kemp from the Jennings A. Jones College of Business, along with Ashley Searles from Farm Credit Services, covered topics from career-fair networking tips to the importance of job-interview dining etiquette.

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Dr. Saeed Foroudastan, Associate Dean, College of Basic and Applied Sciences, tells Hannah Carrick about the MSPS program.



Sarah Haynes (r) discusses internships with Kyle Holmberg from the Tennessee Department of Agriculture.



Andriana Jones learns about career opportunities from UT Extension agent Pat Whitaker.



Ag Alumni Have a Board of Directors

Ag Alumni of MTSU have come together and formed a new association. They formed an ad hoc planning committee in 2009, wrote bylaws and had a kick-off meeting. Now they have a board of directors. Ag Alumni are alive and well

The board has 13 members:

Cindy Ayers, Christiana, TN, 1978-80
 Glen Beard, Watertown, TN, 1959
 Jonathan Black, Knoxville, TN, 2009
 John Campbell, Lewisburg, TN, 1975
 Jim Clark, Murfreesboro, TN, 1994
 Ron Cooper, Murfreesboro, TN, 1964
 Joshua Crain, McMinnville, TN, 2000
 Sam Dennis, Murfreesboro, TN, 1979
 Will Jordan, Murfreesboro, TN, 1982-85
 Brian Ladd, Murfreesboro, TN, 2005
 Charles McDonald, Shelbyville, TN, 1972
 Barbara Sherman Sherrill, Antioch, TN, 2005
 Robert Strong, Gainesville, FL, 1996

AG ALUMNI FACTS:

- The name of the organization is *Middle Tennessee State University's Ag Alumni.*
- For now, there are no dues to be paid.
- The bylaws, as amended, may be viewed on the *Agribusiness and Agriscience Website:* <http://www.mtsu.edu/abas/>

Plans are underway for Ag Alumni activities in the fall.

GET INVOLVED—Would you like to be a part of this great association? Contact Dr. Warren Gill at 615-898-2404 or by e-mail at wgill@mtsu.edu.

2011 Ag Banquet Was a Success

Over 140 students, faculty, parents and friends attended the 2011 Ag Banquet held at the Lane Agri-Park. All agreed this year's event was unusually successful.

The event opened with a reception honoring Joe Jack and Jerry Dement and Dr. Robert R. (Bob) Garrigus. In 2010, Endowments were set up to honor these individuals and this year the first scholarships were presented.

A major highlight of the event was the awarding of over \$30,000 in upperclassman scholarships to 25 deserving students.

Two new Endowments were also announced. These are the Jerry Williams and Carolyn Gill Scholarship Fund Endowments.



Sponsors for the event were **Tennessee Farmer's Co-op, Bart Krisle** (President of Tennessee Farmer's Co-op), **Rutherford Farmer's Co-op** and **Farm Credit Services**.

Laura Harrington, Andriana Jones, and Wesley Foster were among the winners at Awards Banquet.

Outstanding Senior Awards

Robert A. Alexander Outstanding Agribusiness Senior Award
Laura Harrington

Outstanding Animal Science Senior Award
Monica Wilmore

Sam Paschal Award for Outstanding Horse Science Senior
Elizabeth Lowrey

Theodore C. Bigger Outstanding Plant and Soil Science Senior Award
Wesley Foster

B.B. Gracy, Jr. Outstanding Agriculture Senior Award
Andriana Jones

MTSU School of Agribusiness and Agriscience Announces the Jerry Williams Scholarship Endowment

Dr. Jerry Williams was on the MTSU faculty for 37 years, which was a period of unprecedented expansion of student enrollment for the Department of Agribusiness and Agriscience at MTSU. His role in this expansion was exemplified by his role in the development and growth of the Horse Science Program and the area of Animal Science. His work and dedication to the Horse Science Program helped make it a Signature Program at MTSU.

It is an honor to announce the formation of a new MTSU School of Agribusiness and Agriscience Scholarship Endowment in honor of Dr. Williams and to ask you to consider contributing to this Endowment so we can truly honor Jerry. Short description and website:

Jerry Williams Endowed Scholarship Fund: Dr. Jerry W. Williams came to Middle Tennessee State University (MTSU) in 1966 as Director of the Horse Science Program, where he soon established himself as a popular and effective Professor of Animal Science. Jerry has always been genuinely interested in helping young men and women reach their potential. His students now serve critical roles in many positions in the field of agriculture. They include people who are directly involved in production, others who became veterinarians, serve in Extension or other educational roles, as well as those who have excelled in other careers, but who maintain vital interest in agriculture and the horse industry. He was recognized for outstanding teaching by the Alpha Gamma Rho Fraternity.

Website for more information about supporting this Endowment:

http://www.mtsu.edu/abas/Williams_endowment_flyer_4_13_11.pdf

Scholarships are not truly endowed until we reach \$10,000 so we need you to respond today. The information is on the website. Please let us hear from you soon so we can start awarding Scholarships in honor of Jerry Williams.



Meet the MTSU Farm Lab Staff

Because the Farm Lab staff are such an integral part of the School of Agribusiness and Agriscience, we would like to introduce you to them and explain what they do. There are six members of the Farm Lab Team, each assigned to a specific area of expertise; but at any time they can be found helping each other out as needed. All staff are assisted by student labor, without whom their jobs would be impossible. The real products produced by ABAS Farm Laboratories are the experiential learning that occurs and the good work ethic that is developed.

Tim Redd is the Farm Lab Director. He does everything, which includes teaching a class most semesters (e.g. Field Crops, Swine and Dairy Production, Dairy Product Evaluation, Milk Processing). He is on top of and completely involved in every aspect of the Farm Labs activities. For example, he can be found in a tractor or under it doing repairs, instructing classes on artificial insemination, operating the separator in the milk processing lab, or conducting artificial insemination on honey bees. Not to mention all of the administrative details and representing the university with tours and presentations. In a third party audit of our farm laboratory program, it was stated that Tim got more out of his staff and accomplished more with less money than other programs.

Dan Troup is the Field Crops Manager. His responsibility is to provide the majority of the food for the livestock, as well as to conduct special university or industry-lead research projects and test plots for seed development. He prepares fields, plants, harvests and maintains the equipment for corn, soybean and hay production. He is certified for spraying pesticides and herbicides. This past Fall he participated on the Dairy Product Evaluation Team as a graduate member. He won first place in both Ice Cream and Cottage Cheese.

Daniel Boyer is the Beef and Swine Herdsman. A small herd of goats have been added to his responsibilities. Daniel is very involved in the Livestock

Management classes that are held year round during Fall, Spring and Summer sessions. Most of the livestock research projects are conducted on the beef and swine, which keeps him constantly involved with the ABAS students, faculty and often industry personnel. School tours and presentations are part of his regular schedule. He and his students also give a hand in the hay field, milk processing plant, bee apiary and even the garden plots.

Jason Tanner is the Dairy Herdsman. He is responsible for approximately 100 head of Holstein and Jersey dairy cattle, including one that is fistulated. A fistulated cow is one that has had a port implanted through the cow's side to have access to the cow's stomach. The purpose is for digestion research. Most of the preschool, grade school, home school, YMCA, and Boy and Girl Scout tours take place at the dairy. Spring and summer of 2010 brought 471 children touring the MTSU Dairy. Jason also participated as a graduate member on the Dairy Product Evaluation team. He won first place for Yogurt.

Ralph Smith is the Assistant Dairy Herdsman. The cows are milked twice everyday at 3am and 3 pm, and then there's the feeding, animal husbandry, maintenance, ABAS classes and research, tours, Farm Days, FFA involvement (high school and collegiate), and Judging contests. Since Ralph came to MTSU Farm Labs with invaluable dairy-

Thank You!

The MTSU Farm Labs staff would like to acknowledge all of the support received from the university, alumni, industry and community—Thank You!

ing experience and is well ingrained in the Agriculture community in Rutherford County, he is a tremendous asset.

Liz Troup is the Milk Processing Manager. The MTSU Milk Processing plant is the only university educational facility left in the state. We pasteurize and homogenize the milk from the Dairy Lab for use in the dining facilities and daycare on campus. Classes such as Milk Processing and Marketing utilize the Milk Processing Plant for student hands-on application during actual processing. Other class application involves lab exploration into making butter, cheese and bacteriological sampling. Randolph and Associates, a food and dairy consultant firm out of Birmingham, Alabama, utilizes the plant as a demonstration model during their Pasteurization and Sanitation workshops. These workshops expose MTSU to the dairy processing industry across the nation. Liz assists with the Dairy Product Evaluation team in sample preparation, and participated as a graduate member in which she won Cottage Cheese. She is also involved with the Beekeeping courses, maintaining the MTSU apiary, and of course providing chocolate milk for tours and presentations.

MTSU Farm Labs Educate the Public

In addition to the daily operation of the farm units, the Farm Lab staff stayed busy last year providing educational outreach to both the local community and the agricultural industry. The annual audience reached by the MTSU Farm Labs staff exceeds **5,000 people**, and that's not counting the ABAS students who work on and utilize the farm laboratories for class experiential learning.



Block & Bridle Club Update



The MTSU Block & Bridle club had a busy year. Some of the highlights included a trip to the national convention that was hosted by the Michigan State B&B Chapter. Seven students and their advisor attended.

Other activities that kept club members busy included showing beef cattle, hosting the Little "I" show on campus in November, hosting a Preview steer & heifer

show for youth in February at the Tennessee Livestock Center, as well as several meetings and fundraising events.

Members wrapped up the academic year in June by hosting the 21st annual "Beef Camp". Thirty-five youth from across Tennessee participated in Beef Camp.

Our next big adventure will be hosting the 92nd National Block & Bridle Convention from January 31 - February 2, 2012. This convention will be held in conjunction with the National Cattlemen's Beef Association national convention. Club members are working hard to secure sponsorships, arrange agriculture industry tours, and speakers.

If you would like to serve as a sponsor for B&B Convention, please check out our website (<http://mtweb.mtsu.edu/bandb/>) and/or contact Dr. Jessica Carter.

Several club members served as camp counselors during beef camp. Pictured (l to r) include Dustin Moore, Laura Harrington, Megan Pohl, Boomer Harris, Jaclyn Climer, Sarah Norman, and Abby Burger.



Pictured at the MSU Kellogg Biological Station include (front, l to r) Laura Harrington, Abby Burger, Casey Bowen, and Dr. Jessica Carter and (back) Wesley Foster, James Porter, Mick Hill, and Blake Warren. The research station houses a robotic milking parlor.



MTSU Farm Labs cont. from pg 6

The Farm Labs staff represents MTSU and the School of Agribusiness and Agriscience when they take MTSU students, equipment, crops, milk, livestock and bees to numerous events throughout the year, including: Ag Day on the Hill; Jr. Beef Expo; Beef Camp; 4H Fair; Beginning and Advanced Beekeeping; ABAS Field Day; Raiderfest; Aramark Sustainability Day; Leadership Rutherford; industry workshops; TN Youth Cattle Association; Bedford County Environmental Awareness; Farm Days at McFadden, Oakland's Mansion and Sam Davis Home; Mitchell Nelson Career Day; Science, Math and Technology Camp; June Dairy Day; Ag in the Classroom; National Dairy Product Evaluation Contest; state and county fairs.

In April the staff hosted agriculture students from Reaseheath College in England. The students were awarded a grant to investigate the food industry, and they chose Middle Tennessee. Since we had contacts with state regulatory and local industry, Tim Redd was able to schedule a very thorough and diversified tour. He arranged a presentation by John Sanford, TN Department of Agriculture Food and Dairy Manufacturing Administrator. He also organized tours of the MTSU Farm Labs, Kroger's milk processing plant Heritage Farms, Rich's Frozen Foods, LaVerne COOP, and Bonnie Blue goat dairy in Waynesboro. We were invited to reciprocate the visit, and our Dairy Science Club just returned from England in July.

MTSU Hosted Delta Tau Alpha National Convention in 2011

The MTSU chapter of Delta Tau Alpha, the agricultural honor society, hosted the 2011 National Convention on campus the weekend of 4-6 March. Students and advisors from eleven colleges and universities were represented at the meeting. In addition to the 2 days of business meetings and seminars, one entire day was devoted to exploring middle Tennessee agriculture and history.

Attendees received guided tours of the Stones River National Battlefield, Waterfall Farms, Rising Star Ranch, and the Tennessee Walking Horse Celebration Grounds. In addition to getting to see the Celebration Grounds themselves,

attendees reviewed an ongoing alpaca show and received a presentation by a veterinarian involved in the production of alpacas in Ohio.

Participants were treated to an evening of country music entertainment on the General Jackson Showboat on Friday night and ended the Convention with a clogging performance featuring one of the MTSU DTA Chapter members (Andriana Jones) and banquet at the Tennessee Room. The MTSU DTA Chapter sincerely appreciates Dean Cheatham and Associate Dean Foroudastan for opening and closing the conference with comments.

2010 Dairy Product Evaluation Team

Coaches: Dr. Charles White, Tim Redd, Liz Troup
Kristen Earnest, Ashley Holbrook, Vanessa Young, Hannah Carrick
(Alternate)

Regional's: Chicago, IL October 23, 2010
Team

- 1st All Products**
- 1st Cheddar Cheese
- 2nd Ice Cream
- 2nd Butter
- 2nd Yogurt
- 3rd Milk
- 3rd Cottage Cheese

Individual

(Placements in top 5)

Ashley Holbrook: 2nd Yogurt, 3rd Cheddar Cheese
Vanessa Young: 2nd Butter, 5th Milk
Kristen Earnest: 5th Cheddar Cheese

Nationals: Decatur, IL November 13, 2010
Team

- 3rd All Products**
- 2nd Ice Cream
- 2nd Yogurt
- 2nd Milk
- 3rd Cheddar Cheese
- 5th Cottage Cheese
- 6th Butter

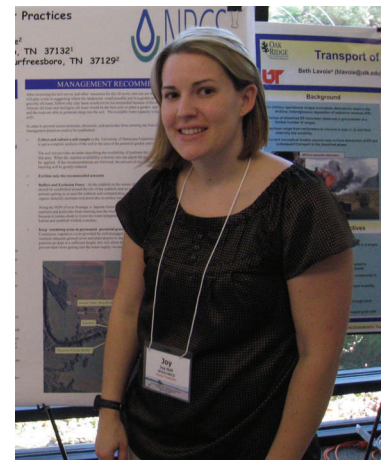
Individual

(Placements in top 5)

Kristen Earnest: 2nd Ice Cream, 3rd Milk, 4th Yogurt
Vanessa Young: 2nd Yogurt, 4th Cottage Cheese

SPOTLIGHT

Joy Hall, an ABAS student, presented a research poster titled, "Using Soil Survey to Access Land Management Practices on Soil and Water Quality", at the 21st Annual Regional Water Symposium at Montgomery Bell State Park.



Pre-Vet Society Visits Shelbyville

The MTSU Pre-Vet Society was given the opportunity to visit Waterfall Farms and Rising Star Ranch in Shelbyville, TN, to shadow several veterinarians and to get hands on experience in the field of veterinary medicine that they are interested in.

They were amazed at the amount of hands on activity that they were allowed to do. Below is a photo from the weekend trip to some of the top Tennessee Walking Horse farms in the industry.



M.S. Degree in Horse Science is Approved – Started in January 2011

The Master of Science (M.S.) in Horse Science received final approval from the Tennessee Higher Education Commission in June 2010. The goal from the onset was to develop a comprehensive program to meet the needs of our students and the industry. Sustainable business and agriculture principles apply to the horse industry; however, adaptation of these principles specific to the horse industry are not traditionally taught at the graduate level in animal science programs. Specialization within the industry demands that equine professionals possess advanced technical knowledge in such areas as recreational and risk management, teaching and coaching, sales and marketing, facility management, equine physiology and psychology, as well as being a knowledgeable horseman.

The proposed curriculum is designed to prepare graduates trained for the multifaceted equine industry. The M.S. in Horse Science at MTSU will tailor a program to match a

student's interest and produce graduates able to adapt to and thrive in this dynamic field. Students may choose one of three concentrations: Equine Physiology, Industry Management, or Equine Education. This M.S. program will provide a depth of knowledge in equine science and increase a graduate's comprehension of disciplines that interface with the equine industry.

For further information about the progress of the Master of Science in Horse Science and application deadlines, please check out our website or contact Dr. Patrick Kayser at 615-898-2832.

Johnston and Gill Go to Argentina To Explore Study Abroad for Ag

Dr. Tony Johnston and Dr. Warren Gill spent several days in December in Mendoza, Argentina exploring the possibility of implementing a "Study Abroad" program for Agriculture. Mendoza is the "Napa Valley" of Argentina and almost every aspect of agriculture is practiced within 50 miles of the city. With the areas heavy emphasis on the export of agricultural goods, Mendoza is an ideal location to incorporate study abroad into MTSU's Agribusiness and Agriscience program.

The host for this tour was David English, a Nashville native who lives in Mendoza and president of English and Associates S. A. Drs. Gill and Johnston toured a remarkable variety of nurseries, fruit and nut growing and processing operations, vineyards, wineries, universities and an outstanding research facility. They also met with agricultural business leaders in the area and arranged for hands-on experience and training of ABAS students.



Agricultural trade is global and the US receives a substantial portion of the foods we eat through imports. To better prepare our students to work in the global business of agriculture, learning about our agricultural partners is critical and offering an opportunity to do so on site is a bonus. Argentina's potential for growth is tremendous and the steps this nation is currently taking to become more internationally competitive makes them an ideal learning laboratory for a program of this kind.

Study Abroad

Subsequent to Drs. Gill and Johnston's trip to Argentina, Dr. Johnston proposed, developed or modified, and gained approval to teach 2 courses there: International Agriculture (ABAS 4190) and International Wine Industry (ABAS 3200). Both courses will be listed to be taught between Christmas and the beginning of the spring, 2012 semester, which will be a big change from the traditional times courses have been offered in the School of Agribusiness and Agriscience. It is possible that only one of the courses will eventually be offered this year—demand for the courses will ultimately determine whether or which will be taught.

Teaching these courses in Argentina after Christmas and into early January is the ideal time to do so. Being in the southern hemisphere, December and January fall during the peak growing season for Argentina. The vineyards, orchards, and fields will be loaded with growing and ripening fruits and vegetables and the food processing plants will be operating almost daily. With the wide variety of crops produced in the area, students will be able to learn about how practically every fruit and vegetable crop is produced and processed. Additionally, Argentina is a major processed fruit and vegetable exporter, offering the chance to learn about processing for the international market. (cont. on p. 13)

Chasing the Sun Across Tennessee Ricketts and His Road Crew Make History with Trip

by Randy Weiler

Reprinted with permission from the November 15, 2010, edition of *The Record* (Vol. 19, No. 10).

When it comes to alternative fuels, Dr. Cliff Ricketts considers himself a modern-day Davy Crockett—"a frontiersman with energy" who says he's "blazed a trail with ethanol, blazed a trail with hydrogen and blazed a trail with sun and water."

On Nov. 1, Ricketts, a 34-year agriscience professor at MTSU, blazed a unique 500-plus-mile trail across Tennessee.

Ricketts drove a specially adapted 1994 Toyota Tercel from Bristol, Va., to West Memphis, Ark. The fuel for the journey: the sun, plus hydrogen gleaned from water. No gasoline was used.

His successful journey ended about 2 a.m. Nov. 2, when he returned to the ag education shop that houses the alternative fuel vehicles he and his students use for research.

"My whole passion is sun and water," says Ricketts, who has had a career of alternative-fuel high-water marks. "I believe accomplishing this feat will have the following implications—a cleaner environment because of clean tailpipe emissions from the vehicle, energy self-sufficiency and renewability, less dependency on foreign oil and less of a trade imbalance because of the purchase of foreign oil."

Ricketts says he firmly believes he could make the one-day drive from near Blacksburg, Va., to Little Rock, Ark., about one-fourth the distance across the United States, with only one refueling stopover at MTSU.

Traveling mostly by interstate (I-81, I-40 and I-24), the Tercel had a cruising speed around 58 mph. Ricketts calls it "a third backup" because a 2008 Toyota Prius in Reno, Nev., is being adapted to run on hydrogen and a 1995 Chevrolet Blazer (a cross between a Volt and a Blazer) is sidelined by low batteries.

The Tercel, nicknamed "Forces of Nature," made the trip across the state "on two forces of nature, the sun and water," Ricketts says. "With this system, every commuter could drive on sun and hydrogen from water as the energy sources."

Also traveling with Ricketts, who holds bachelor's and master's degrees from the University of Tennessee and a doctorate from Ohio State University, was Jo Borck, a Canada native and a hydrogen expert. Borck attended MIT and graduated from Washington State University with a mechanical-engineering degree.

"He is one of the top five hydrogen people in the world," Ricketts says of Borck, whose knowledge of the hydrogen-compression system and the computer-timing mechanism has proven invaluable in their five-year partnership and with Ricketts' students.

How does the engine run off sun and water? Ricketts says the MTSU solar unit provides DC electricity, which is converted into AC electric, and it goes into the grid line.

"In essence, the MTSU system is doing the same thing as a hydro dam or coal-powered unit," he says. "In order to produce hydrogen, tap water is de-ionized and then sent to a solid polymer electrolysis unit," he adds. "When the electrolysis unit is running, it uses the stored solar produced by electricity. ... This system is a result of using TVA's Green Power Switch Generation Partners Program.

"Next, the hydrogen comes out at 200 psi and goes into two 500-gallon storage tanks and then is compressed to 6,000 psi. The vehicle is then filled with hydrogen. It has two 4.2-kilogram tanks rated at 5,000 psi per tank. The vehicle is adapted and equipped to get a 370-mile range."

Ricketts' ultimate applied-science research goal is to drive from coast to coast, hopefully in 2011, using only 10 gallons of gasoline.

Brentwood, Tenn.-based Tractor Supply Co. is Ricketts' primary off-campus sponsor. Other key sponsors include the MTSU Office of Research and Sponsored Programs and the College of Basic and Applied Sciences.



ROAD CREW—Hydrogen and computer timing expert Jo Borck, left, joins MTSU students Robert Keeble, Derek Pack and Nick Booher and alumnus Terry Young of Woodbury with the 1994 Toyota Tercel that made an historic Bristol-to-West Memphis, Ark., trip on Nov. 1. Agriscience Professor Cliff Ricketts drove the car on the 500-plus-mile journey, fueled by the sun and hydrogen from water.

Garden of Hope Gets Boost from MTSU Ag

MTSU Ag student Kimberly Way and College of Basic and Applied Sciences Dean Tom Cheatham took a trip during the Spring Semester to Bradley County to see how a garden could turn lives of juvenile delinquents around. When they returned, Kimberly did more research, signed up for a summer internship with Dr. Warren Gill, and then approached Rutherford County Sheriff Robert Arnold with an idea to start a program in Murfreesboro.

Sheriff Arnold has his own idea: use inmates from the Rutherford County Jail to start the garden. Evidently, it was a good idea, because the garden is started and the inmates are making it work.

Many people are involved, including John Hood, Gloria Bonner, Rosemary Wade Owens and Nate Phillips from MTSU, Janie Becker from UT Extension, Arthal Mintor from the Sheriff's Department and Brenda Benz-Elliott a community volunteer.

So far, this program has been recognized by being featured by Channel 4, WSMV News and by a front page article in the Daily News Journal. Senator Bill Ketron has enthusiastically endorsed it, hoping that the idea spreads to other locations.

Livestock Judging Team

The Middle Tennessee State University livestock judging team completed a successful spring semester. Six students competed at the Southwestern Exposition National Livestock Judging Contest in Forth Worth, Texas, and the Dixie National Beef Judging Contest in Jackson, MS, in February.

The team placed first overall in the Horse Division at the Southwestern contest and fifth overall in the Market Steer Division at the Dixie National contest.

The team competed in the All East Contest held at Penn State University in April. Monica Wilmore won several individual awards, including in 4th in sheep evaluation, 10th in sheep evaluation, 6th in beef judging, and 10th overall in judging.

Team members include Holly Bagget, Lindsey Hodge, Sarah Norman, Julie Ozburn, Samantha Southard, and Monica Wilmore. Each of the team members are students majoring in the School of Agribusiness & Agriscience and members of the Block & Bridle club. The team is coached by Dr. Jessica Carter.

SPOTLIGHT

This is the second year for the lasagna garden beds behind the Habitat for Humanity ReStore. Drs. Nate Phillips, Warren Anderson and two MTSU plant and Soil science majors worked with Habitat Residents.



ABAS Faculty Member Demonstrates the Link Between Choice of Major and Student Success

In February of 2011 Dr. Justin G. Gardner, Agricultural Economist and Professor of Agribusiness, presented research at the Southern Agricultural Economics Association Annual Meeting that examined factors that determined freshman retention.

He discovered that rural students had lower success rates at MTSU. As the population of the student's home zip code decreased the student was less likely to return to MTSU for a second year.

However, the effect was not present for ABAS students. According to Dr. Gardner "Researchers have determined that social integration is a major contributor to student success. Students from rural areas and students interested in rural issues tend to gravitate to our program. They find common bonds with their peers and thus find the motivation to stay in school."

MTSU Partnership with Tennessee Department of Agriculture Continues to Benefit Students and Public

A critical component of the educational program of the MTSU School of Agribusiness and Agriscience (ABAS) is experiential (hands-on) teaching / learning. Public outreach is also important. The grants (summarized below) that have been given to Ag Programming at MTSU by the Tennessee Department of Agriculture have been absolutely integral to the progress that has been made in the last four years.

The MTSU program has been conscientiously centered on Ag Enhancement; i.e. all project that have been funded have been consistent with showing the benefits and opportunities offered by the Tennessee Agricultural Enhancement Program.

Since the MTSU School of Agribusiness and Agriscience has been, is and will continue to be a recognized source for Agricultural Leadership in Tennessee, we think that this partnership with the Tennessee Department of Agriculture is a key element not only for providing improved research and educational facilities, but also for exposing our students to the role of sound governance in developing Agriculture in Tennessee.

All students majoring in Agriculture (~475) have been affected by this partnership. Approximately 12 Animal Science students and 80 Plant Science students have been directly involved as presenters of papers, direct participants in developing the gardens, and other in-depth participation.

Facts about the Ag Enhancement Projects at MTSU Agribusiness and Agriscience Experiential Learning and Research Center (ELRC)

Beginning date of partnership: Spring, 2008

2008 -2009 – TDA (\$32,500), MTSU matching (\$32,500) – used for hay-wrapping demonstration / research.

2009-2010 – TDA (\$33,400), MTSU matching (\$33,066) – used to develop student gardening / nursery program. Plus this grant was used as a match or justification for an additional \$27,000 from the MTSU Sustainable Campus grant for the geothermal.

2010-2011 – TDA (\$39,000), MTSU matching (\$41,706) – used to further improve the student gardens and nursery, with considerable emphasis on irrigation; Also, used to develop new cattle working facility at ELRC.

TDA total: \$104,900

MTSU total: \$134,272

Overall total: \$239,172



Boomer Harris, Abby Burger and Megan Pohl met Tennessee State Department of Agriculture Commissioner Julius Johnson when they represented MTSU School of Agribusiness and Agriscience at Ag Day on the Hill.

SPOTLIGHT

Bradley Coppinger, a freshman majoring in agribusiness, was awarded the **Tennessee Star Farmer Award** at the Tennessee FFA Convention in Gatlinburg in March 2011.



Bradley, son of Phillip and Jennifer Coppinger, is a farmer in the Red Hill community of Cannon County. He became the first person from Cannon County to win this award. Bradley already owns his own equipment, runs a successful business and harvests various crops.

The Star Farmer Award is the highest honor bestowed on individuals by the FFA. It represents the best of the best and finalists have mastered skills in production, finance, management and/or research.

Wine Appreciation Designated EXL Class

Dr. Johnston has taken his Wine Appreciation class (ABAS 2500) to a new level and will be taking his students to a new country altogether—Canada!

Starting this fall, Wine Appreciation will officially be an Experiential Learning (EXL) designated class, and will have the distinction of also having an international studies component. As part of the class, students will spend 3-4 days in Ontario, Canada, in the Niagara-on-the-Lake region. This region of Canada is world renown for the production of ice wines, and he wants his students to learn about them first hand.

Ice wines are made from grapes that have been allowed to freeze on the vine. The grapes picked and pressed while they are still frozen, and the nectar-like juice that is extracted is fermented into the richest, smoothest, and almost dizzyingly delicious wine possible. Canadian law dictates that the grapes may not be picked if the air temperature is above -17°C , which

means it's awfully cold outside during the harvest. The southeast corner of Ontario is unique in that the soils are well suited to grape cultivation and once it becomes cold, it generally stays that way. Ice wines produced in this region routinely win international awards.

Since the introduction of the Wine Appreciation class a little over 2 years ago, the course has become one of the most popular on campus. Students must be over 21 years of age to register, which generally limits underclassmen from enrolling. A waiting list is kept every semester to enroll, and at the end of the Fall 2010 semester, the list was over 60 students long. To help meet the demand, two sections will be offered this fall. Of the 60 students registered thus far, 36 have committed to making the trip. It should be an exciting trip for everyone and it is anticipated that the course will only become more popular as a result. We welcome problems like this in our School!

Int'l Studies cont. from pg 9

There is, of course, a cost associated with international studies; students will have to pay for the airfare and cost of living in Argentina during the class. The current estimate of fees above and beyond tuition is around \$4,000, making the class a serious investment. The experience, however, will be priceless. A recent article in the Tennessean newspaper stated that international food buying is one of the top 10 jobs expected to be in demand in the near future. These courses will certainly be an asset to students looking to work in this area.

Students (and graduates) interested in accompanying Dr. Johnston on a trip to Argentina are welcome to contact him at 615-898-2421 or Johnston@mtsu.edu.

Student Farmers Market

The MTSU School of Agribusiness and Agriscience has a history of providing students with quality experiential learning opportunities.

The MTSU garden project is an extension of our overall teaching philosophy which places an emphasis on hands-on learning.

Students in the ABAS 3660 Vegetable Gardening classes plan, prepare, and plant a garden during the spring semester. Hundreds of vegetable transplants are produced by the students in the MTSU Horticulture Center greenhouses, and the students applied what was learned in class in order to properly select a site, prepare the soil, install drip irrigation, calculate fertilizer rates, and properly plant and maintain a garden.

ABAS students maintain and continue planting in the garden over the summer.

The produce is marketed to the MTSU campus community every Friday from 1:00 to 3:00 p.m. in the MTSU Horticulture Facility.

The proceeds from the sale are used to help in purchasing materials that the students use at the MTSU Horticulture Center.



MTSU Students Excel at Horticultural Science Conference in Texas

Students in the MTSU Plant and Soil Science Club traveled to Corpus Christi, TX, to attend the southern region meetings of the American Society for Horticultural Science.

Two students, Eric Limbird and Daniel Messick, competed in the undergraduate research poster contest. Kelley Gallagher, Austin Lohin, Kate Willoughby, and Elliot James, participated in horticultural competitions.

Eric Limbird won 1st place in the undergraduate research poster competition with his poster titled, "Seed Source Location and Captan Influence Germination Behavior in *Rhododendron calendulaceum*."

Kelley Gallagher presented a slide-show on the club's activities over the last year and won 1st place for the club share presentation.



Austin Lohin won 3rd place in the fruits and nuts commodities judging.

Daniel Messick received the Hammet Memorial Award for Outstanding Club Member for his dedicated service to southern region ASHS collegiate branch over the last few years.

In conjunction with the competitions, students were able to visit the

South Texas Botanical Center with students from the other universities, attend talks on the latest horticultural research, and visit the King Ranch.

This experience was made possible with the support of the MTSU Student Government Association and funds earned through various club plant sales. Student research and travel funds were funded by the Office of the Vice Provost for Research through MTSU Undergraduate Center.



Neely, Ricketts and Gill Have Winning Poster

A poster presentation, entitled "Incorporating Preparatory Exams into a Dual Credit Course Curriculum: Preparing Students for Computerized College Testing and Increasing Post-Secondary Credit Success Rates," placed first in the Innovative Idea Presentation category at the Southern Region Conference of the American Association for Agricultural Scientists in the Agricultural Education division.

The poster, primarily presented by Alanna Neely, was chosen the best of the fifty-three in the competition. There were actually seventy-one posters submitted, but fifty-three were selected for presentation at the conference.

The poster demonstrated the critical role of a carefully designed examination process in assuring the success of students who are taking a college level course while in high school.

Judges cited both the innovative work as well as the creative poster design as reasons for the top placing. The poster's graphic design was primarily the work of Darrell Burks, in Creative and Visual Services.

Alanna Neely, Cliff Ricketts and Warren Gill were representing MTSU's School of Agribusiness and Agriscience at the conference.

For more information about the Dual Credit program, and this poster, visit www.mtsu.edu/abas/.

If you need our assistance or want to send us a note, please send to wgill@mtsu.edu or check our WEB page: <http://www.mtsu.edu/abas/>

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 Dr. Warren Anderson, Professor of Soil Science
 Ms. Anne Brzezicki, Instructor, Horsemanship and Equitation
 Dr. Jessica Gentry Carter, Associate Professor of Animal Science
 Dr. Kevin Downs, Associate Professor of Animal Science
 Dr. Justin Gardner, Assistant Professor of Agribusiness
 Dr. Rhonda Hoffman, Associate Professor of Animal Science (Equine)
 Dr. Tony Johnston, Professor of Agribusiness
 Dr. Patrick Kayser, Clinical Specialist in Equine Health
 Ms. Alanna Neely, Instructor of Dual Credit programs
 Dr. Nate Phillips, Assistant Professor of Horticulture
 Mr. Tim Redd, Director, Farm Laboratories
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