CAFSSS Newsletter

College of Agriculture, Food Science, and Sustainable System (CAFSSS)
Land Grant Programs

Trimester CAFSSS Newsletter | ISSUE 001 SPRING 2012

Agriculture, Food, and Environment Day

Mr. Charles Weibel

CAFSSS hosted the first Agriculture, Food, and Environment Day to introduce students to the field of agriculture, food systems, and the environment on April 24, 2012. The event provided opportunities for high school students to learn about the sciences behind agriculture, opportunities for career development, scholarships, and available programs at Kentucky State University.

Approximately 350 participants, including high school students from several counties across the state, attended the AFE day. Buses from Anderson, Scott, Mason, Grant, Franklin and Jefferson counties dropped off students for the event. Students were welcomed by Dr. Mary Sias, President of KSU, and Dr. Teferi Tsegaye, Dean of CAFSSS.

Students toured the facility, met KSU faculty and staff and were served lunch. Alltech, Toyota, Kentucky Farm Bureau, the KY Division of Water, U.S. Environmental Protection Agency Region 4, Organic Valley, USDA NRCS and other vendors had booths and demonstrations for students.

from the dean ...

It has been a great start to Year 2012. We are finishing the Spring Semester and many more exciting things to come.

From restructuring the new College to developing matriculation for the Agriculture, Food, and Environment Bachelor Degree to conducting workshops and many more, CAFSSS is ready to expand and advance its program.

Please join and become partner with us. We look forward to your collaboration.

Dr. Teferi Tsegaye
Dean
Director of Land Grant Programs
**International Ventures**

*The College of Agriculture is expanding its outreach and research collaborations with international partners.*

This semester, CAFSSS has worked closely with Dr. Cornell Menking (Associate VP for International Affairs) and Dr. Samuel Oleka (Dean for the College of Arts and Sciences) in seeking new partners and funding opportunities.

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**February 2012**

Dr. James Tidwell and Dr. Cornell Menking visited the Dominican Republic to solidify a new partnership with the Dominican Republic’s Institute for Agriculture, Livestock, and Forestry Research. An MOU was signed between the two institutions to collaborate on research in aquaculture.

Dean Teferi Tsegaye and Dr. James Tidwell (below) travelled to St. Croix, U.S. Virgin Islands on February 16-21, 2012 to work with the University of the Virgin Islands and the Commissioner of Agriculture for the U.S. Virgin Islands on possible research and outreach collaborations and student and faculty exchanges.

Delegations from Michael Okpara University of Agriculture, Umudike, South Nigeria, visited Kentucky State University on April 4-6, 2012. The team consisted of Professor Hilary O. Edeoga (Vice Chancellor), Mrs. Georgiana Edeoga (Administrative Officer), Professor Friday Ekeleme (Director of University Advancement), Dr. Ajuzieogu Nlewadim (Dean of College of Natural Sciences and Environmental management), and Professor Uchenna Nwachuku (Chair of Counseling and School of Psychology from Southern Connecticut State University/MOUA). They participated in the CAFSSS Extension Advisory Council Meeting and toured research facilities.

On April 6th, 2012, President Mary Evans Sias signed a Memorandum of Understanding with Prof. Hilary O. Edeoga, Vice Chancellor of Michael Okpara University of Agriculture (MOUA) in Umudike, Nigeria. Professor Edeoga was accompanied by a distinguished delegation of five other officials from the new partner university. The MOUA and KSU-CAFSSS will seek new collaborations in aquaculture and environmental programs to strengthen and build our international partnership.

Our new partner has submitted a working proposal to the USDA Foreign Agricultural Services.

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**April 2012**

CAFSSS had the honor of welcoming Dr. Sheleme Beyene, Provost and Vice President of Academic Affairs from Hawasa University, Ethiopia. Dr. Beyene worked with Dr. George Antonious in assessing nutrients in soils and environmental related issues. Dr. Beyene is interested in establishing a collaboration to conduct collaborative research with KSU in the near future.

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**The Newly Structured Divisions and New Faces**

The new College of Agriculture, Food Science, and Sustainable Systems (CAFSSS) new divisions:

- **Dr. Kirk Pomper**
  Interim Chair
  Agriculture & Natural Resources (ANR)

- **Dr. James Tidwell**
  Chair/Professor
  Aquaculture (AQUA)

- **Dr. Marion Simon**
  Interim Chair
  Food and Animal Sciences (FAS)

- **Dr. JoAnn Bankston**
  Interim Chair
  Family and Consumer Sciences (FCS)

- **Dr. George Antonious**
  Interim Chair
  Environmental Studies & Sustainable Systems (ESSS)

- **Dr. Buddhi Gyawali**
  Assistant Professor
  Environmental Studies & Sustainable Systems

- **Dr. Maifan Silitonga**
  Assistant Dean/
  Associate Professor
  Environmental Studies & Sustainable Systems

- **Mr. Alan Benson**
  Director of Finance & Human Resources

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**Recently joined faculty and staff:**

- **Mr. Louie Rivers, Jr.** (2nd from left) showed the team the Aquaculture Research Facilities and the Center for Sustainability of Farmers and Families.
PROFESSIONAL ACTIVITIES

SOCIETY PRESENTATIONS

**Dr. Buddhi Gyawali** presented “Driving Forces of Income Growth in Southeastern Region” and “Exploring Variations in Income Growth in Southeastern United States” at the Southern Agricultural Economics Association, Birmingham, AL on February 4-7, 2012.

Faculty, staff, and students attended the Aquaculture America conference that was held in Las Vegas, NV, on Feb. 29 - Mar. 2, 2012.

**Mr. Kenneth Thompson** presented “Determination of apparent digestibility coefficients in distiller’s Dried grains with solubles, four animal-protein sources, and one plant-protein source in practical diets for large sunshine bass *Morone chrysops × m. saxatilis*”; Steven D. Rawles, Ann L. Gannam, and Ronald G. Twibell were contributors. Graduate student **R. C. Shultz** presented “Aquaponics applied at the University of the Virgin Islands” and “Producer’s guide to aquaponics”. Graduate student **Vaun Cummins** presented “Partial replacement of soybean meal with dried distiller’s grains with solubles in practical diets for Pacific whiteleg shrimp *Litopenaeus vannamei*. **Alejandro Velasquez, Kenneth Thompson, and Dr. Carl Webster** were contributors. Graduate student **William Rimmle** presented “Intensive Production of Paddlefish, *Polyodon spathula*, in Decommissioned Waste Water Treatment Plants: An Economic Model Drs. Siddhartha Dasgupta, Steven Mims, and Mr. Richard Onders were contributors. Abstracts for all presentations were published in the Conference Proceedings.

Dr. John Sedlacek and Ms. Karen Friley attended the 7th International Integrated Pest Management Symposium in Memphis, TN on March 27-29, 2012.

**Ms. Karen Friley** presented “Populations of beneficial insects in methyl salicylate-baited sweet corn in Central Kentucky”; Dr. John Sedlacek, Dr. Mike Bomford, L.S. Brent and D. Slone were contributors. **Dr. John Sedlacek** presented “Effect of methyl salicylate-based lures on lady beetle populations in Central Kentucky blackberries”; Ms. Karen Friley, J.A. Riddick and J. Birike were contributors.

JOURNALS & PROCEEDINGS


COMMUNITY SERVICE

**Dr. James Tidwell** was awarded the Kentucky Proud™ partner in Excellence Award. This award is given by the Kentucky Department of Agriculture in recognition of commitment to the growth and sustainability of agriculture in the Commonwealth.

Dr. Tidwell provided testimony to the House Agriculture Committee about House Bill 115 dealing with the need to label and differentiate imported and domestic sources of catfish in restaurants on February 8 and served on House Bill 166 Steering Committee – advising the Department of Parks, within Kentucky Tourism, Arts and Heritage Cabinet, on ways to use more Kentucky Grown products at State Parks.

Dr. Michael Bomford and Dr. Kirk Pomper presented on organic gardening, low-cost season extension, and fruit production for Appalachian regions at Saturday’s Growing Appalachia conference in Prestonsburg, Kentucky on April 14, 2012.
Extension reaching out at its BEST!!!

An exemplary effort organized by staff from CAFSSS to assist farmers affected by the tornados that ripped Kentucky in early March 2012.

Mr. Eddie Reed and the team coordinated donations from local businesses to help those affected by the tornado. KSU donated surplus supplies along with animal feed donated by area businesses. The trucks headed to a collection point in West Liberty, KY and delivered agricultural fencing materials, which included barbed wire, T-posts, wooden posts and tread-in posts for poly netting.

Businesses donating feed include Southern States Cooperative in Frankfort; Bagdad Roller Mills and Bob’s Hay Barn in Shelby County; Woodford Feed in Woodford County; and Anderson Farm Supplies in Anderson County. Individuals donating include Sandy Coy of Frankfort and Carla Foster of Shelby County.

On February 28 - March 1, 2012, the Kentucky State Extension Council met in Lexington, Kentucky. Volunteer leaders from around the state meet twice a year to: 1) provide stakeholder feedback on program issues to guide development of a state Plan of Work; 2) be ambassadors for communications/public relations for Kentucky Cooperative Extension; and 3) receive training and assist in providing training for those in leadership roles, and are advocates for Kentucky Cooperative Extension.

Health Rocks
Dr. LeChrista Finn

Health Rocks! (HR!) is making a positive impact on the lives of Kentucky youth. This healthy lifestyle curriculum endorsed by the National 4-H Council is aimed at 10 – 15 year olds. It equips youth with strategies to make healthy decisions.

A recent training was held for communities across the state to make a difference in the decisions our young people make. Approximately 18 participants representing Extension, libraries, schools, churches and afterschool programs attended and committed to helping KSU reach its goal. Another training workshop will be held later this summer to engage other community partners. For additional information, contact Dr. LeChrista M. Finn, Principal Investigator at (502) 597-6738 or lechrista.finn@kysu.edu.

The Third Thursday Thing
Dr. Marion Simon and Mr. Louie Rivers

The Third Thursday Thing is a monthly sustainable agriculture workshop targeting small farmers, beginning farmers and agricultural professionals including Kentucky State University and University of Kentucky researchers; Cooperative Extension Specialists, Agents and Small Farm Assistants; US Department of Agriculture Agencies, including Natural Resources Conservation Service (NRCS), Farm Service Agency (FSA), and Rural Development (RD); State Agencies including the KY Department of Agriculture; and non-profits including Community Farm Alliance and the KY Women in Agriculture. Meetings are conducted at the Kentucky State University Research and Demonstration Farm.

Topics covered:

January: Farm equipment maintenance and safety
February: Agroforestry, Organics and High Tunnel
March: Goat Day
April: Sustainable Agriculture with USDA Natural Resources Conservation Service (NRCS) covering cost-shares, soils and water issues, and pond construction.

Home School students from Anderson County presented Lego’s and robotics.
Taking care of business

January 17-20
Dr. Tsegaye attended the Association of Research Directors (ARD) for 1890 Land-grant Universities, Jacksonville, FL

January 20-22
Dr. Tsegaye attended the Council of Environmental Deans and Directors (CEDD), Washington D.C.

January 29 – February 2
Dr. Tsegaye and Dr. Kimberly Holmes attended the 1890 Association of Extension Administrators (AEA), New Orleans, LA

February 25-29
Association of Public and Land-grant Universities (APLU) 2012 Joint Council for Agricultural Research, Extension, and Teaching (CARET) and Administrative Heads Section (AHS), Washington, D.C.

Dr. Tsegaye was accompanied by Mr. Curtis Rosser (left) and Mr. Ronald Bunton (right) shown on the picture below. They are both farmers, acting as CARET delegates representing KSU. The team visited congressional offices.

March 11-14
Dr. Tsegaye attended the ARD Consortium in Greensboro, NC. He was accompanied by Drs. Kirk Pomper, Mike Bomford, George Antonious, Kenneth Andries, and Avinash Topè to develop a consortium proposal on USDA-NIFA’s priority areas in Science, Technology, Engineering, and Math (STEM) and Science, Technology, Engineering, Agriculture, and Math (STEAM).

March 25-20
Drs. Tsegaye and Kimberly Holmes attended the 1890 Land-Grant Institute Outreach Meeting, Jacksonville, FL

April 15-18
Drs. Tsegaye, Kimberly Holmes, and Joanne Bankston attended the Joint Council of Extension Professionals to share the impacts of our Extension program to meet with the KY congressional delegates in Washington D.C.

Louisville Metro Agriculture Initiative:
Food Deserts and Agricultural Sustainability
Dr. Kristopher Grimes

The College of Agriculture, Food Science, and Sustainable Systems (CAFSSS) is working with the Louisville Metro organization and the office of Mayor Greg Fischer in finding the most effective way to improve agricultural production and education in Louisville. On April 6th, Dean Tsegaye of the CAFSSS gave a presentation to the Louisville Agriculture Club to demonstrate KSU’s commitment to the advancement of agriculture in Louisville and the greater Jefferson County area. Dean Tsegaye was accompanied by Drs. Kristopher Grimes, Marion Simon, Avinash Topè, Maifan Silitonga, and Mr. Louis Rivers.

The CAFSSS group met with Mayor Greg Fischer’s office to begin an initiative in the city of Louisville in order to improve access to fresh produce and healthy foods and increase agricultural production. Nearly 100,000 residents in twelve different neighborhoods in West Louisville have little to no access to fresh fruits and vegetables without traveling a significant distance from home. Through this partnership, Mobile Vending Markets will be developed in order to provide access to healthy foods, and provide a first step towards sustainable agriculture in the city of Louisville. It is our hope that these projects will foster a tremendous partnership with Louisville Metro in order to improve the lives of the residents and create a model for the Commonwealth and the nation.

The CAFSSS team will attempt to address comprehensive issues occurring in Louisville and surrounding areas. Drs. Kristopher Grimes, Avinash Topè, and Changzheng Wang (food and nutrition); Drs. James Tidwell, Michael Bomford, and Kirk Pomper (agricultural production); Drs. George Antonious and Maifan Silitonga (environmental assessment); Ms. Victoria Burke and Dr. Albert Assibey-Mensah, College of Business and Computer Science (Business and Economic Development); Dr. Marion Simon and Mr. Louie Rivers, Jr. (Small Farms and Outreach); Dr. Amanda Sokan, College of Professional Studies (Gerontology) and Mr. Ken Bates (Geographic Information System/GIS applications).

Ribbon-Cutting Ceremonies

The Kentucky State University Board of Regents convened a meeting session at the new Aquaculture Production Technologies Laboratory (APTL) building on April 27, 2012. Following the meeting, President Mary Sias presided over ribbon-cutting ceremonies to officiate the grand openings of the new APTL building and the Rosenwald Center for Families and Children (RCFC).

The RCFC facility (right) will be used for education, training, and research in early childhood and family development, including: general education; nutrition; mental health/wellness; weight management (obesity); technology education; and family ecology.

The APTL building (below) will be used to evaluate and develop intensive recirculating systems and expansion of genetics research in aquaculture.
Students’ Corner

Masters in Aquaculture/Aquatic Science
Ahmed Saud Alsauqfi: Application of Microsatellite DNA Markers in Studies on Induced Gynogenesis in Ornamental (KOI) Carp Cyprinus carpio (Advisor: Dr. Boris Gomelsky)

Andrew McDonald: The Role of Dissolved Organic Matter and Live Bacteria in the Diet of Juvenile Painted Creekshell Mussels, Villosa Taeniata (Bivalvia: Unionidae) (Advisor: Dr. James Tidwell)

Kiah Shani Rodriguez: Analyzing the Heating and Cooling Systems of Kentucky State University (Advisor: Dr. Kazi Javed)

Russell Ove Williams: Populations of Beneficial Insects in Conventionally Grown Sweet Corn using Methyl Salicylate-based Predalure Lures (Advisor: Dr. John Sedlacek)

Rodney K. Ripberger: A Rain Garden’s Bioretention Effectiveness in Mitigating Storm Water Runoff (Advisor: Dr. Tamara Sluss)

Masters in Environmental Studies
Adam Shea Gerughty: The Effect of Pool Geomorphology on Feeding Morphology of Aplodinotus grunniens and Lepomis macrochirus in the Ohio River, USA (Advisor: Dr. Tamara Sluss)

Jacob Bailey Botkins: Pawpaw Patch Genetic Diversity and Clonality and its Impact on the Establishment of Invasive Species in the Forest Understory (Advisor: Dr. Kirk Pomper)

Emily Anne Hogue: The Survival of Nosema ceranae Spores Exposed to Sunlight (Advisor: Dr. Thomas Webster)

Re’Gie Yvette Smith: Genetic Diversity in Kentucky Spicebush Populations using Simple Sequence Repeat Markers (Advisor: Dr. Kirk Pomper)

Undergraduate Research
CAFSSS supported undergraduate students to attend the National Conference on Undergraduate Research (NCUR) at Weber State University, Ogden, Utah, on March 29-31, 2012.


Kyla Ross: “Residues of endosulfan isomers on pepper and melon plants”. Advisors: Drs. George Antonious and Tejinder Kochhar.


Improving Recycling Program at KSU
Dr. John Sedlacek
Masters of Environmental Studies students Irina Howard, Brandon May and Adena Rivas, recently completed their two semester long research project entitled “Strategic Assessment of Recycling Awareness & Effectiveness at Kentucky State University via Waste Audits, Surveys, & Single Stream Implementation.”

As part of a Student Team Project Course (ENV 503), these students worked with Dr. John Sedlacek (CAFSSS-MES faculty mentor), Mr. Grey Mandeel (KSU Safety Compliance Officer) and the KSU Green Society to increase awareness and the importance of on-campus recycling efforts. The student team conducted waste and recycling audits in several on campus buildings, conducted a knowledge, awareness and attitudes survey among all members of the campus community, and designed posters and artwork calling attention to recycling at KSU. The Thorobred jumping through the universal recycling symbol logo, developed by team member Adena Rivas, will be prominently featured on the KSU-MES website, along with links to other recycling websites. The research team also conducted a recycling competition among the dormitories which was won by Chandler Hall (Photo next page). For the dormitory’s efforts they were awarded a one of a kind plaque made entirely of recycled materials and a pizza party contributed by Aramark dining services. Survey results will help guide future recycling efforts on the KSU campus. Contact Dr. Sedlacek at (502) 597-6582 or john.sedlacek@kysu.edu for more information and survey results.

Congratulations to Our 2012 Graduates!

11th Annual Posters-at-the-Capitol
January 26, 2012, Frankfort, KY
KSU undergraduate student presenters:
Melissa Lee, Kyla Ross, and McKenzie Johnson
(Advisor: Dr. George Antonious)

Jermain Dunigan, Marquita Grayson-Holt, and Justina Riddick (Advisors: Drs. John Sedlacek and Kirk Pomper, Ms. Karen Friley and Mr. Jeremiah Lowe)

Paul Auberry, Phillip Henderson, David Jones, and Noah Nelson (Advisors: Dr. Steve Mims and Mr. Rick Onders)

Erica Coleman (Advisors: Drs. Changzheng Wang and Lingyu Huang and Mr. Cecil Butler)

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Protecting our Water Resources

Do you know where your drinking water comes from? Do you know the quality of the water you drink?

The CAFSSS faculty, staff, and student are working to increase public awareness and promote environmental stewardship through educational outreach. The team, consisting of Drs. Maifan Silitonga, John Sedlacek, Tamara Sluss, George Antonious, Buddhi Gyawali, Mr. Eddie Reed, and Mr. Brandon May (MES Graduate Student), participated in the National Groundwater Foundation program in an effort to become a Groundwater Guardian community – a community that is proactive in protecting its water resources.

Celebrating Earth Day at Cane Run Elementary
Dr. Ken Andries

CAFSSS provided fun and educational activities for students of Cane Run Elementary school on Friday, April 20, 2012, as part of their Earth Day celebration. This program was organized by Mrs. Darlene Horton, Environmental Coordinator and Resource Teacher at Cane Run Elementary, located in the Rubber Town area of Louisville. Cane Run School has 476 of pre-K to 5th grade students that attended these programs.

CAFSSS team provided programs in Aquaculture (Mr. William Bean), Introduction to Geographic Information Systems (Dr. Buddhi Gyawali and Mr. Ken Bates), and Environmental Education/Wildlife Habitat Management (Mr. Wes Stilwell).

Each program was designed to expose students to concepts and technology that are important to environmental issues and help schools provide more educational opportunities. This is the second year that KSU has participated in this program at Cane Run Elementary.

Upcoming Events

May 17, 2012: The Third Thursday Thing (Pasture Poultry)
June 3-9, 2012: Pathways and Access to Careers in Technology
June 10-23, 2012: Ag Discovery
June 10-July 14: Research and Extension Apprenticeship Program
June 21, 2012: The Third Thursday Thing (Horticulture)
July 1-28, 2012: Summer Transportation Institute
July 8-14, 2012: Youth Entrepreneurship Program
July 18-22, 2012: 1890 Leadership Development Program
July 19, 2012: 15th Anniversary of Third Thursday Thing

Publication Committee:
Dr. Maifan Silitonga | Ms. Gae Broadwater | Ms. Susan Templeton | Ms. Wyvette Williams | Dr. Kirk Pomper | Ms. Jennifer Hubbard-Sánchez

KSU Earth Day Celebration
Dr. John Sedlacek

The Earth Day Celebration was held on Friday, April 20, 2012 in the common area in front of the Carl M. Hill Student Center. The event was coordinated by the Green Society, a student organization, and Dr. Tamara Sluss (Associate Professor of Biology).

The CAFSSS scientists/students/staff participated in the celebration through displays and other activities. The Aquaculture program had a display set-up allowing many students see and touch a paddlefish.

Students from the Master of Environmental Studies program participated in the "Recyclethon" competition in which student groups could submit recyclable items to compete to win prizes; a plant sale fundraiser, a "Recycle Raffle" and pledge drive to win one of 4 bicycles, a "Trashion" show event and the "Pie a Professor" spectacle. The students also conducted a community survey on knowledge about our water resources and quality as part of CAFSSS effort to become a Groundwater Guardian community.

Students participating “Trashion” show

“Recyclethon” winners from Chandler Hall
It is the policy of Kentucky State University not to discriminate against any individual in its educational programs, activities or employment on the basis of race, color, national origin, sex, disability, veteran status, age, religion, or marital status.