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A MESSAGE FROM THE DIRECTOR

We are pleased to announce that the Center recently received notification of external funding for two of our all-time largest projects. First, under the direction of Hal Pepper, the Center will coordinate one of three USDA Dairy Innovation Initiative Programs. The Tennessee proposal, titled Diversifying Income and Adding Value by Manufacturing Dairy Products, was submitted in June and was recently selected for funding along with Vermont and Wisconsin. The Tennessee project will be administered by a team of thirteen collaborators from four UTIA departments and the Tennessee Department of Agriculture, Tennessee Dairy Producers Association, and other dairy industry specialists. One component of the project provides opportunity for sub-awards, which will be administered by TDA, direct to selected dairy farmers across the state for business plans and marketing plans in the development of value-added dairy products. Second, under the direction of Troy Dugger, the Center will oversee the implementation of the state’s AgrAbility program on January 1, 2020. The transition of the program to our Center results from the upcoming retirement of longtime AgrAbility coordinator Tim Prather in the Department of Biosystems Engineering and Soil Science. Troy will work closely with Joetta White and Eileen Legault, Extension area specialists in the Western and Eastern Region, respectively, to implement AgrAbility and enhance the quality of life for farmers and other agricultural workers with disabilities.
Specialty Crop Team Visits Hop Growers in Yakima Valley

Five members of the UT Extension Hops Initiative participated in an on-site study tour of hops farms and hops processing enterprises in the Yakima Valley of Washington State on June 25-28, 2019. The Yakima Valley Region is home to 70 percent of the US production of hops. The group of Tennessee Extension specialists toured four hops farms and heard from more than eight different individuals involved with hops production, processing, and marketing. The group also met with the executive director of the Hop Growers of America. Members of the team learned about hops production firsthand and participated in conversations regarding varieties, plant nutrition, irrigation, pest management, yield, harvesting, handling, drying, pelletizing, processing, mechanization, labor, costs, pricing, marketing, management, diversification, and sustainability. The information learned from the tour will be utilized in the development of educational materials, programs, and outreach with Tennessee specialty crop growers. The study tour was conducted as part of the Opportunities for Specialty Crops in Tennessee: Focus on Hops project which was made possible by funding from the USDA Agriculture Marketing Service through grant USDA-AMS-SCBG-2017. Those participating in the hops study tour were Rob Holland, Center for Profitable Agriculture; David Hughes, Department of Agricultural and Resource Economics; David Lockwood, Department of Plant Sciences; Mark Morgan, Department of Food Science; Aaron Smith, Department of Agricultural and Resource Economics; and Hannah Wright, Department of Agricultural and Resource Economics.

Update on Small-Scale Dairy Processing Working Group

After an initial meeting in June, a team of twelve Extension specialists and UTIA researchers has developed the framework for a research project and funding request assembled around the hub of evaluating the viability of small-scale, on-farm dairy processing. The framework includes an evaluation of the current dairy industry, market assessment, regulatory considerations, cost analysis, and profitability. The team launched the project in September after securing half of the $203,000 needed to conduct the project.

Extension and Other Agriculture Leaders Learn from On-Site Visits Across the State

During July and August, seventeen UT Extension personnel participated in sixteen different on-site farm and business visits in Tennessee to learn about grapes, grain, and hops production and processing as sustainable enterprises for beverage manufacturing in Tennessee. The visits were conducted with existing Tennessee grape growers, hops growers, other specialty crop growers, wineries, and distillers to (1) learn from their experiences; (2) identify needs, challenges, critical success factors, and opportunities; (3) inquire about their use of local agricultural products; and (4) share thoughts and insights. Additional visits are scheduled during November. The on-site learning opportunities have been partly funded by Tennessee SARE and have provided unique training opportunities regarding markets for Tennessee products.
The 2019 Farmers Market Vendor Boot Camp Workshop was conducted in January and February 2019 on the following dates and at the following locations:

- January 23, 2019 Henderson
- January 28, 2019 Chattanooga
- February 7, 2019 Lebanon
- February 18, 2019 White Pine

The workshop was partially funded by USDA National Institute of Food and Agriculture, Tennessee Department of Agriculture, and Tennessee Association of Farmers Markets. Support was also provided by Henderson City Hall, Collegedale Farmers Market, James E. Ward Ag Center, and the Great Smoky Mountains Expo Center. This was the eighth annual workshop designed for farmers market vendors, direct farm marketers, and Extension agents.

Topics for the workshop were taught by UT Extension’s Megan Leffew and Hal Pepper. Topics included:

- Merchandising Methods to Make Money
- Digital Marketing Trends
- Business Planning Basics
- Food Product Cost and Pricing Tools

The all-day workshop was conducted at Henderson City Hall, the Commons at Collegedale Farmers Market, James E. Ward Ag Center, and Great Smoky Mountains Expo Center. A total of 106 participants attended the workshop. Forty-three participants completed the post-workshop evaluation for a 41 percent response rate.

<table>
<thead>
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<th>Topic</th>
<th>Average Score Before the Workshop</th>
<th>Average Score After the Workshop</th>
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<td>Merchandising Methods to Make Money</td>
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<td>Digital Marketing Trends</td>
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<td>Business Planning Basics</td>
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</tr>
<tr>
<td>Food Product Cost and Pricing Tools</td>
<td>2.48</td>
<td>4.15</td>
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</tbody>
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As a result of the workshop, 42 respondents said they increased their knowledge of marketing fundamentals, tools, or techniques. Forty-one said they developed goals for implementing new or improved marketing strategies and forty-one said they increased their knowledge of business planning to evaluate on-farm investment decisions.

**CPA Awarded Specialty Crop Block Grant for 2020**

The Center for Profitable Agriculture was recently awarded a Specialty Crop Block Grant to develop curriculum for educational workshops aimed at specialty crop growers and potential growers of specialty crops. The workshops will focus primarily on basic production considerations and basic marketing considerations that are applicable to numerous specialty crops. The curriculum that will be developed will be used to conduct workshops in six locations across the state for growers and to train up to sixty county Extension Agents. The workshops for growers are targeted for October 2020 and the planning of the curriculum and program development will begin in late 2019 and the early part of 2020. The goal of this project is to enhance the competitiveness of specialty crops through enhancing or improving the economy as a result of specialty crop development.
Troy Dugger, program coordinator, Center for Profitable Agriculture, received the Lovelace/McKinney Professional Development Travel Award in early 2019. The funds are to be used by Extension personnel as they look to develop program leadership opportunities. Dugger chose to learn about specialty crops and how educational programming efforts in this subject can be of benefit to Extension agents and producers across Tennessee. Dugger’s travel took him to the Mountain Horticultural Crops Research and Extension Center in Mills River, North Carolina. There he visited with Jeanine Davis, Extension specialist, herbs, organics, specialty crops, and vegetables, and Margaret Bloomquist, research associate, horticultural science. They discussed programming efforts in the area of specialty crops and toured the 397-acre research station looking at the central part of the research program that included tomatoes, apples, landscape crops, vegetables, peaches, biofuel crops, and various specialty and alternative crops. Future plans for the specialty crop program would include making use of an advisory committee focused on specialty crops to assist with educational program development, conducting educational meetings for Extension agents and producers that relate to specialty crops in Tennessee, and continuing work with Extension personnel with the University of Kentucky’s Center for Crop Diversification in developing crop profiles for selected Tennessee crops.

State SARE Advisory Committee Meeting

The State SARE Advisory Committee conducted its summer meeting on July 31, 2019, on the Tennessee State University Farm in Nashville. Advisory Committee Members spent the morning hearing from a PhD graduate student and faculty members from Tennessee State University concerning research conducted using various grant funds from the Southern SARE program. Emmanuel Dzantor and his PhD student presented information on a recently completed study on “Evaluating Soil Microbial Communities and Cropping Systems for Biomass Feedstock Production on Degraded Lands.” Dilip Nandwani presented information from a recent graduate student study that discussed “Investigating the Impact of Plant Spacing on Yields of Sweet Potato Produced in Organic Systems.” The third subject was a tour led by Richard Browning of the meat goat research taking place at TSU as well presenting information on the Dexter Cattle Herd on the farm. The final presentation was conducted by Jason DeKoff as he discussed and exhibited equipment purchased with the Professional Development Program grant funds about Soil Smarts (Specific Management and Resources Training for Sustainability) for Soil Health in Tennessee. DeKoff has led in-service trainings for Extension agents in this program. Following lunch, the advisory committee met to discuss SARE program opportunities for agriculture educators.

Dugger Leads Successful USDA Rural Development Grant Proposal

The Rural Business Enterprise Grant was recently awarded to the Center for Profitable Agriculture from the USDA Office of Rural Development. The programming areas for these grant dollars for CPA will be threefold:

- Conduct up to three county agriculture asset mapping/inventory meetings
- Develop training materials for Extension agents focusing on Beginning Farmer Programs
- Conducting up to nine value-added outreach educational workshops
  - Meetings will be arranged to focus on individuals that live in the designated at-risk and economically distressed counties in Tennessee

The county agriculture asset mapping/inventory meetings will be conducted on two different occasions in the same county. The first meeting will be to identify assets within the county relating to agriculture and forestry; the second will
develop plans based on the information received from the initial meeting. County summary reports will be printed and made available for counties participating to include a plan of action for economic development.

The Beginning Farmer Program will recruit a team of Extension agents to develop a curriculum and/or educational materials to be used by agents as they have opportunity with those interested in beginning farming. A website will be developed to house the information and in-service trainings will be conducted for Extension Agents when materials are complete.

Value-added outreach educational workshops will be conducted across Tennessee. The nine workshops will have as possible topics:

- Specialty Crop Profiles
- Farmer Market Boot Camps
- Farmer Market Management Trainings
- Value-Added Food Marketing
- Sustainable Agriculture
- Meat Sales and Regulations

**TFBF Policy Discussion Meetings Help CPA Assess Program Needs**

Staff members from the Center for Profitable Agriculture attended six Policy Discussion (PD) meetings hosted by the Tennessee Farm Bureau in July and August of 2019. The six meetings attended by CPA staff were in the following communities/counties:

- Linden/Perry County                       July 22
- Lewisburg/Marshall County         July 23
- Reagan/Henderson County           July 23
- Trenton/Gibson County                 August 5
- Blountville/Sullivan County           August 19
- Knoxville/Knox County                   August 20

Various topics, issues, and concerns were raised by participants in the PD meetings, including several related to value-added agriculture, Extension, education, and the programs of the CPA. Those related issues included fake meat, livestock slaughter facilities, developing a market for cull cows, medicinal-use marijuana, raw milk marketing, AgLaunch, TAEP, TDA Ag Enterprise Funding, international trade, farm labor, farmland preservation, industrial hemp, UT Knoxville and UTIA unification, milk labeling, and milk marketing.

**Collaboration Formed to Plan Mid-South Agricultural Trade Conference at UTM in March 2020**

A planning team was recently established to host the Mid-South Agricultural Trade Conference on March 5, 2020, on the UT Martin Campus in northwest Tennessee. The event is a collaborative outreach educational program by the Blasingame Chair of Excellence in the UT Department of Agricultural and Resource Economics, UT Martin, the Tennessee Department of Agriculture, and the Center for Profitable Agriculture. The program details are being planned under the primary leadership of Andrew Muhammad, Joey Mehlhorn, Keith Harrison, Whitney Flatt and Rob Holland. The purpose of the first-of-its-kind event is to educate and inform farmers, agribusinesses, and agriculture leaders in Tennessee and the mid-south about the role, importance, and significance of international trade on local agriculture production, markets, and economies and to increase awareness of agriculture exporting tools and resources.
Center Partners to Host Agriculture Trade Educational Meeting in Northwest Tennessee

Farmers and agriculture leaders who are interested in hearing the current assessment of international trade and its impact on US and Tennessee agriculture should plan to gather in Trenton the evening of November 14. Andrew Muhammad, an international trade expert who serves as the Chair of Excellence in Agricultural, Food and Natural Resource Policy for the UT Institute of Agriculture, will serve as the featured speaker at a discussion designed to enhance awareness and understanding of agriculture trade and international agriculture marketing. The seminar is sponsored by UT Extension, the Tennessee Department of Agriculture, and the UT Center for Profitable Agriculture. “Exports and international agriculture markets are a significant factor in the overall domestic agriculture economy,” said Rob Holland, director of the UT Center for Profitable Agriculture. “We hope many area farmers and agriculture leaders in northwest Tennessee will attend this opportunity to learn more about current international trade issues and their impact on agriculture.”

“Farmers need to be mindful of international trade issues as they can impact their overall profitability,” said Danny Morris UT Extension area farm management specialist. “International trade issues have a large influence on the price of all major commodities produced in West Tennessee. We are excited to have Dr. Muhammad come and speak to our farmers about these very important topics and how they impact agriculture here at the local level,” he added. Muhammad plans to specifically address these topics in his discussion:

- Overall outlook for US and Tennessee agricultural exports
- How the trade war is affecting key agricultural sectors such as corn, soybeans, and beef
- Pending trade agreements and implications for agricultural trade
- Importance of Tennessee forest exports

The event will take place on Thursday, November 14, 2019, beginning with a meal at 6:00 p.m. CDT at Crenshaw’s Catfish Cookers Restaurant, 314 Poplar Corner Road, Trenton, TN 38382. The event is free to the public; however, preregistration is required by November 11 by contacting Danny Morris at 731-855-7656 or danhmorr@utk.edu.

Center Releases New Publication on Considerations for Cider Sales

The Center for Profitable Agriculture recently released UT Extension publication SP 805 titled Considerations for Cider Sales by Farm Retailers in Tennessee. The primary purpose of the information in the publication is to assist Tennessee fruit growers who are interested in manufacturing non-pasteurized cider for retail-only sales. The information does not address all of the requirements and regulations for cider manufactured for wholesale or pasteurized cider. The intent of this publication is not to promote unpasteurized ciders but to educate agricultural producers and food manufacturers about the regulations for marketing unpasteurized cider. Fruit cider is considered a potentially hazardous food. Unpasteurized cider had been associated with several food recalls over the years. Consumers most susceptible to potential hazards of consuming unpasteurized cider are young children, the elderly, pregnant women, and immunocompromised populations. The health, safety, and well-being of these populations should be considered when unpasteurized cider is being marketed.

In recent years, there has been a considerable amount of confusion regarding processing, labeling, and regulatory requirements for farmers selling cider. Some of the confusion has come from inconsistent answers to questions including the following:

1. Does cider have to be prepared for sale in an inspected food processing facility?
2. Is pasteurizing required for cider that is sold at farmers markets?
3. Is a warning label required on cider sold directly from fruit farms?
4. Can the required warning statement be displayed at the point of sale rather than on each package?
This publication outlines regulations administered by the US Food and Drug Administration and the Tennessee Department of Agriculture (TDA) for the manufacture and retail sale of cider in Tennessee.

**Building a Sustainable Business Workshop Series Evaluated**

The Building a Sustainable Business Workshop Series was conducted on eight consecutive Tuesday evenings from January 8, 2019, through February 26, 2019. The workshop series was partially funded by a grant awarded by the Southern Extension Risk Management Education Center (SRMEC) and US Department of Agriculture National Institute of Food and Agriculture.

Topics were taught by UT Extension’s Hal Pepper, Danny Morris, and Megan Leffew; UT Martin’s Joey Mehlhorn, Rachna Tewari, and Ross Pruitt; University of Missouri Extension’s Ryan Milhollin and Joe Horner; winery owner/operator Rick Riddle; and certified public accountant Brandon Clenney.

- Before You Begin: Why Develop a Business Plan and Who Should Be Involved in the Planning Process?
- Identifying Values—Laying the Groundwork to What is Important to You
- Farm History and Current Situation: What Have You Got?
- Vision, Mission, and Goals
- What Routes Can You Take to Get to Where You Want to Go?
- Strategic Planning and Evaluation
- Recruiting, Hiring, and Managing Agricultural Labor
- Tactical and Contingency Planning and Evaluating Strategic Alternatives
- Developing a Business Plan for the Winery at Seven Springs
- Business Planning Resources
- Food Product Cost and Pricing Tools
- Finalizing Your Business Plan
- Entity Structure

The workshop series was conducted in Jackson with three satellite locations in Memphis, Columbia, and Knoxville using distance technology (Zoom) to connect all the participants. University of Tennessee area farm management specialists Danny Morris, Les Humpal, and Adam Hopkins and AgLaunch specialist Jade Clark moderated the workshops. The speakers presented from Jackson and remotely from Missouri and East Tennessee. A total of forty-nine participants attended at least one workshop and twenty participants attended at least seven workshops.

As a result of the workshop,
- Twenty-five respondents increased their knowledge of marketing fundamentals, tools, or techniques.
- Twenty-five respondents developed goals for implementing new or improved marketing strategies.
- Twenty-five respondents increased their knowledge of business planning to evaluate on-farm investment decisions.
- Twenty-one respondents currently operate or plan to start a direct marketing enterprise in the next year and all of them said the workshop helped them gain knowledge/skills to increase sales revenue, reduce costs, prevent losses, increase payroll or make one-time capital purchases. Four respondents indicated they did not currently have or did not plan to start a direct marketing enterprise in the next year.
Planning Considerations for a Direct Marked Food Product—Farmers markets may provide a good opportunity for food entrepreneurs to promote new products through sampling and to test the potential for developing additional markets. The importance of developing a business plan before making significant capital investments cannot be overstated. In the financial plan section of the business plan, a cost analysis should include the cost to manufacture, store, distribute, and market a single product item. For the business to be sustainable, the price at which the product is marketed must be high enough to allow the entrepreneur to recover all the costs of manufacturing, storing, distributing, and marketing the product. Those costs should include a charge for any unpaid labor provided by the entrepreneur or the entrepreneur’s family.