UTIA Priorities Forum Group Responses

Group Task

Design an integrated (Research, Teaching, and Extension) UTIA program focused on your assigned theme with the following considerations:

- Dream big as if money is not an obstacle
- Overlap with other themes is acceptable
- Program should be preferably interdisciplinary, interdepartmental, and/or intercollegiate
- Program should focus on Tennessee/Tennesseans, but should have global visibility, reach and impact
- Program should address multiple constituencies/audiences including K-20 students, urban/rural residents, private/public stakeholders, etc.
- Program should address and/or fill a significant gap
- Program should embody UTIA mission: Real - Life - Solutions

Group 1 – Environmental

Group Moderator: Pat Keyser

Group Members: Jim Stewart, Mark Radosevich, Chris Sneed, Carrie Stephens, Annette Wszelaki, Michele Atkins, Carla Sommardahl

Response:

“Enviro-smart Living”

- Farming
- Families
- Lifestyles
- Soil
- Food Preservation
- Buying Local
- Water
- Watersmart Landscapes
- Green Choices
- Biodiversity
- Composting
- Diet\Healthy Choices
- Lower input
- Energy Reduction
- Energy Use
- Productivity
Goal: Use research, teaching and Extension to promote environmentally smart practices in farming, families and lifestyles

Mission: While our work with “Enviro Smart” will be on the local level, touching the lives of Tennesseans on the farm and at the home, our reach will expand around the globe as we involve researchers, Extension staff and students in international outreach programs.

Program Components:

- Multi-Disciplinary approach to grant funding (multiple units, states, global, etc.)
- All on board (all campuses) i.e. Sociology, etc.
- Include Industry partners, commodity and trade groups, foundations, community groups, conservation groups
- Produce more with a smaller environmental footprint
- More sustainable
- More environmental-water quality; practices and quality
- More Local
- Teaching Agriculture Foundations (locally and globally)
- Greenhouse Conditions
Group 2 – Individual and Community Health

**Group Moderator:** Justin Crowe

**Group Members:** Blake Brown, Al Womac, Donna Calhoun, Rebecca Trout Fryxell, Faith Critzer, Brad Collett, Richard Powell

**Response:**

Focus area:

Develop a resilient food infrastructure to support healthy lifestyles!

Overview:

The focus of this program is on a local food distribution system aided with a state/local distribution network. The purpose is to develop a research/teaching/extension infrastructure that facilitates the development, implementation and sustenance of a replicable healthy, abundant, quality food supply system. This system is generated at a grassroots level using production and business systems developed and proven by UTIA and their partners. This created system provides a vehicle for an educational component that can be communicated to youth and consumers that have typically not played a role in their food supply source. This program will work to create a demand for the end products, production practices, distribution models and consumption and use.

Demand:

- Informed by healthy educational initiatives.
- Visibility/Marketing

* UTIA stamp of approval

Production:

- Agri-business plan development (value added)
- What to grow? What are the limitations in the crops? What keeps us from having a year round supply of food? Timing?
- Quality of the product!
- Establishing a dynamic workforce (students, grads, [redacted])
- Multi-scale production (corporate to school based)
  - Utilizing underused landscapes (urban and rural areas)

Distribution:

- State sponsored food distribution program to accommodate small to medium sized producers
  - Food Hubs
    - Centralized
• 5 – 6 counties
• Improved traceability of food origins
• UTIA has a presence in every county
• Equitable and affordable access to healthy foods (food deserts)

Consumption:
• Preparation of food items.

Use:
• Infrastructure and programming in support of healthy lifestyles

Initiative partners:

External: TN Department of Agriculture, Department of Corrections, Department of Health, Department of Education, USDA Rural Development
Group 3 – Economic

Group Moderator: Nancy Howell

Group Members: Bob Hayes, Mike Buschermohle, Alan Windham, Francine Hollis, Nancy Howell, Dean Kopsell, Rita Jackson

Response:

Group 7 Economics

Agricultural Entrepreneurship Program

Why this is needed in TN:
Decline family farm legacies that can sustain multi-generational families
Increase in urban population in the state
Fewer people with direct farm experience, but who may have strong interest in agricultural business
Need to increase scientific literacy, agriculture literacy and applied research in populations

We propose an Agricultural Entrepreneurship Program that would teach economics, science, marketing and production of any agricultural model product (livestock, ornamental horticulture, food production, vertical gardening) using the same basic process of production.

This program would serve as a facility for research, teaching and outreach. Students who potentially seek a degree in the program would have a service learning component in their education to interact with schools to teach sustainable agriculture. The program would be a resource for Tennessee communities, schools, and other groups as an Extension component. A value of the program is that being an entrepreneur includes a civic component in working with communities to give back.

Research within this program could include engineering new production systems, food safety and technology for innovative products, educational extension programming for youth science literacy, product development, agriculture business and economics for developing new products and traditional pest control management that would aid in designing new systems.

Educational metrics would measure outcomes of the program and it’s clientele.
Value-added component to Tennessee product: producing products that can be harvested and processed in Tennessee.

Program would involve all areas of UTIA—horticulture, animal science, 4-H, veterinary medicine, food science, consumer science, agricultural economics, food safety, plant pathology, entomology, etc.

Graduates and other clientele of this program would have ability to take their skills to other countries to train the trainer (extension), providing skills for populations of underdeveloped countries to use their resources to sustain agriculture in their communities. During their education, students would travel to other countries as interns to learn from other cultures.

This program could easily have an online component, including a non-degree certificate program for clientele. It would be a multi-option educational program for those seeking additional education in agricultural business processes, including those currently in agribusiness or those who desire to pursue that as a career. Another component of the program could be formal education for K-20 teachers who want to introduce agricultural science in the classroom.
Group 4 – Environmental

**Group Moderator:** Walt Hitch

**Group Members:** Chris Clark, Justin Rhinehart, Carla Bush, David Bilderback, Scott Stewart, Doris D’Souza, Steve Adair, Jim Brosnan

**Response:**

UT C.A.R.E.S.

Center for Agricultural Resources and Environmental Sustainability

MISSION – Assessment and improvement of agricultural output, reduction of environmental impact on natural resources and delivery of information to stakeholders

RESEARCH
- Improvement agricultural in production and/or efficiency
- Assessment and reduction of ag environmental impact
- Improve food quality and reducing resource waste
- Urban sprawl – smart growth
- Reducing environmental pollution, recycling

TEACHING
- Bigger footprint (FTEs) on main campus
- Integration with Institute for Secure and Sustainable Environment (ISSE)
- Graduate student opportunities (GTA, internships,
- STEM for youth

OUTREACH
- address public perception improve confidence in our food supply
- GMOs, pesticide contamination, nutrient run off, animal antibiotics,...
- Social media
- Food cost/supply

NEEDS
- People
  - C.A.R.E.S. Environmental assessment specialists/scientists
  - C.A.R.E.S. Food Safety and Nutrition specialists/scientists
  - C.A.R.E.S. Communications Specialist – Person who specializes in communication
  - C.A.R.E.S. Social Media Specialist – engage and creates
- Stakeholder Communication network across TN
Group 5 – Economic

Group Moderator: Lannett Edwards

Group Members: Dayton Lambert, Lannett Edwards, Daniel Yoder, Bente Flatland, Melissa Henry, Janie Burney, Don Hodges, Ralph Harvey, Carol Reesse

Response:

UTIA Priorities Forum
Future Strategies for Advancing UTIA
Session Notes

Notes:

Program idea #1: Turning Tennessee into the new cornucopia

- Taking advantage of trends
  - Climate change making other sources more expensive and reliable
  - Energy costs of transport from distance sources
  - Water supplies

- Advantages it would yield:
  - Multiple smaller producers more resistant to disease
  - Reduces concentration of other problems
    -- Waste
    -- Environmental impact
    -- Animal
  - New communication and organizational tools

- Elements of program
  - Production assistance
    -- Unused land in production
      • Balance agriculture with other land uses
    -- Efficiency
    -- Greenhouses
-- aquaculture

o Irrigation assistance

o Marketing
  -- Electronic markets
  -- New consumers
  -- Tie-in to disadvantaged
  -- Get word to consumer

o Linking producers in new “co-op”

o Preservation / storage technologies

o Sustainability (environmental impacts)
  -- Water, air, soil
  -- Minimal erosion, runoff
  -- Ecological diversity
  -- Certification??

o Food safety
  -- Certification??

o Humane animal production
  -- Certification??
  -- Emerging diseases
  -- Biosecurity
  -- Antibiotics and impact on health

o Youth and adult education

Program idea #2: Diversify value of Tennessee land and water resources
- Take advantages of trends:
  o Locavore
  o Outdoor recreation
- Hunting and fishing industry

  - Advantages we have now:
    o Topography, climate, soils, variation across state
    o Tourist attraction
    o Central location
    o Biodiversity
    o Large range of forest resources
    o Local and regional motivation
    o State parks
    o Extension outreach
    o Forest resource utilization
    o Environmental research and extension

  - Program elements:
    o Get landowners to examine larger range of land uses
      -- Rural appraisal
      -- Linking to resources
    o Promote resource conservation
      -- Education of landowners
      -- Public education
    o Monitoring and research on health of wildlife populations
    o Erosion and water quality research and extension
    o Promotion of sustainable hunting and fishing

Background
- Energy
- Local food supply: provide market for local production
- Production with reduced health impact
- Production with lower environmental impact
- Importance of genetic diversity
- Change in food chain level
- Appropriate collaborative groups and partnerships
  o How to make producers not the enemy
  o How can we be seen as objective?
  o Support be laundered?
  o Other forms of support?
  o How tie in regulation?

Concept of larger system
- Linking consumer demand to producers
  o Education on sources, costs, benefits
- How produce overall food security
  o Supply, quality, environment

Modification in UT rewards system
- Get rewarded for actual impact, not just easy metrics
- Should be important to diversify audience for which get credit
Group 6 – Economic

**Group Moderator:** Scott Swoape

**Group Members:** Karen Lewis, Kevin Hoyt, Agustin Rius, Stephen Kania, Ty Petty, Vermont Dia, Hem Bhandari

**Response:**

UTIA Center for Sustainable Agriculture

Agricultural Efficiency

**Improve Efficiency**

- **On Farm – Farm Productivity**
  - Genetics, management, nutrition, yield, quality, water usage

- **Off Farm – Reduce waste from producer to consumer**
  - Facilities, transportation, consumer education,

**Public/Private Partnerships**

- Philanthropy
- Corporate/Industry Organizations
- State
- Multi-State
- International

**Education**

- Foreign Exchange
- Students
- 4-H Youth Development
- Agriculture Producers
- Science Based Public Education
Marketing

Student Recruitment

Entrepreneurship

Shark Tank Startup Programs
Group 7 – Individual and Community Health

Group Moderator: Jaehoon Lee

Group Members: Brian Whitlock, Ben West, Ky Pohler, Bob Donnell, Graham Hickling, Ron Blair

Response:

Group 9: Healthy Food For 2050

SCOPE/OBJECTIVES:
- Environment, Economics, and Policy
- Food security (Quantity and Quality)
- Soil, Water and air Quality
- Infrastructure for distribution
- Development and adaptation of Emerging technologies
- Functional food development

APPROACHES / GAPS THAT NEED FILLING
- Develop a multidisciplinary team that consists of interdisciplinary team members, entire UT system
- "Center for Communicating Agricultural Science" to address the problem of gaining societal acceptance to use existing and emerging knowledge and technologies in agriculture.
- Need stronger links to the medical folk (UT Med Center, School of Graduate Medicine, UTK Public Health Program)
- Need a Governor’s Chair to steer effort?

EXISTING RESOURCES:
- UTIA Extension
- UTIA Food Science and Technology; BESS; ALEC;
- UTIA College of Vet Med; Animal Science; Wildlife Health
- UTK Sociology/Psychology
- Journalism and Marketing folk
OUTCOMES:

- The goal being to improve community health.
- “Tell our stories” in a way that the public understands and trusts.
Group 8 – Environmental

**Group Moderator:** Jerome Grant

**Group Members:** Edward Yu, Cheryl Kojima, Marcy Souza, Vicki Lofty, Heather Kyle-Harmon, Jerome Grant, Martha Keel, Lisa Muller, Shelly Olin

**Response:**

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Notes

“ENVIRONMENT”

(Group #2)

(Edward Yu, Cheryl Kojima, Marcy Souza, Vicki Lofty, Heather Kyle-Harmon, Jerome Grant, Martha Keel, Lisa Muller, Shelly Olin)

“Environmental improvement (and conservation) of agricultural and natural resources for sustainability, value creation (tourism), and human well-being”

(integrate Extension, Research, and Teaching)

Focus on a broader perspective tied into “Invasive Species”

- Can also align with ‘Economic Transformation’ and ‘Health’ (builds on UTIA strengths)
- Program focuses on Tennesseans but does have regional, national, and global visibility, reach and impact
- Program addresses multiple constituencies/audiences, including
  - Rural and urban areas
  - K-20 students
  - Private/public stakeholders
  - General public
- Issue affects agriculture, natural resources, forestry, environment, homeowners, etc.
- Health-related issues (animals and humans) (HUMAN AND ANIMAL WELL-BEING)
- Interdepartmental, interdisciplinary, inter-college,…
  o Potential collaborating departments in CASR and CVM include ALL OF THEM!
  o Potential collaborating departments in other colleges include EEB, Environmental Engineering, Baker Center, public health, education, health, and human sciences, nursing, sociology
  o Potential federal and state partners include TDA, TDF, TDEC, TDOT, TWRA, US Fish & Wildlife, USDA FS, USDA APHIS, USDA, Department of Health, CDC, EPA, TVA, DOI, Department of Education, Federal Highway Administration, NSF, and many others…….
  o Potential industry partners include commercial ornamentals, lumber/woodmill, specialty crops, tourist-related areas (gardens, theme parks, caves, etc.) [VALUE CREATION], ‘rich’ horse people, pest management/pest control association, commodity groups, and many others…….

- Teaching opportunity
- K-12 outreach
  o 4-H
  o Public schools
  o Homeschools
- Outreach opportunity/media opportunity
  o Citizen Science
- Interdisciplinary minor (undergraduate and graduate)
- International associations (research, student exchanges, internships, etc.)
  o With other universities
  o With other governments
  o Collaborate with FAO, WHO, OIE
- Biosecurity/Food Security/Food Safety
- Extension Opportunities
  o Master Gardeners
  o Homeowners
  o Garden clubs
  o Television, Newspaper, magazine, etc.
  o Social media
- County officials
- County and state fairs
- Field days
- Facilitate community actions
- And many others.....

- Research Opportunities include ecology, ecological footprint, epidemiology, mitigation/management, sustainable management [SUSTAINABILITY], alternative controls for organic growers and others, conservation, environmental impacts, genetic analysis, economic analysis, and many others.......

- COMMUNICATION!!!! (“help change public perception”)

- EXAMPLE OF POSSIBLE SUBPROJECT:

- S.H.I.F.T. Now (Stop Harmful Invasive Forest Threats Now)
Group 9 – Individual and Community Health

**Group Moderator:** Aaron Smith

**Group Members:** P. Krawczel; D. Miller; R. Skillington; J.C. Rains; B. Ownley; D. Wise; A. Taylor; E. May

**Response:**

Individual and Community Health improvement through enhanced food security, access to healthy/functional foods, local and urban food systems, and individual and community livelihoods

Health Improvement and obesity prevention through basic food security, access to healthy food, development of functional foods and individual and community

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<th>Extension</th>
<th>Teaching</th>
<th>Research</th>
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Issues: Creating a Culture of Health

Causes:

nutrition, life style, education, socio-economic issues, time constraints, change in family dynamic (ie dual income families, single parent homes),

Questions:

How do we make healthy, nutritious, safe, food readily available and incorporated into a healthy lifestyle?

Why do people make certain food and healthy lifestyle choices?

Work place stress and time allocation?

How do you market nutrition?

How do you design a program that does not provide information overload to the end user?

Programming Solutions:

Education on Individual and Societal Value of Healthy Lifestyle Choices
  - Evaluate existing programs
  - Evaluate look access and identify local constraints
- Why do people knowingly make unhealthy choices? How do we address these motivations?

Developing an Ideal Local Solution: Rural, Urban, and County Specific (age appropriate: extension-school (k-college)-extension)

- Research multidisciplinary methodology – address through UT laboratory school.

- Provide a multidisciplinary response to individual and community problems identified at the local level.

- Food Production-to-consumption-to-lifestyle impact

- Community food systems and structures

Partnering with university of Tennessee, local food suppliers, educators and health care providers.

Demonstrations at Farms, Grocery Stores, Kitchens, food incubator

Connection between production of food to consumer and lifestyle value

Create Measures of Effectiveness to Quantify Outcomes