The UT Institute of Agriculture was challenged to help develop a strategy for ensuring the growth and prosperity of agriculture and forestry over the next decade. This document presents the combined ranked findings from the UTIA Regional Advisory Councils’ responses to the governor’s challenge.

1.1 Rural Balance Sheet
4.2 Increase Funding Support for Research and Extension / Stable Funding for UTIA
4.6 Review Higher Education ANR Curriculum to Meet Employer Needs
4.7 Support Educational Programs through Extension / Educate through Research and Extension
4.3 Increase Youth Education Programs
3.3 Stimulate Rural Enterprise Innovation in Tennessee
4.5 Enhance Agricultural Literacy Program
2.4 Ensure Agricultural Priority Use of Water
1.5 Achieve Recognition of Agriculture and Forestry as a State Priority
3.2 Enhance Marketing of Agricultural Products / Improve Farm Income
4.4 Increase Support for CTE, etc. (Secondary Education)
4.1 Promote and Endorse the Drive to 55 (55% of Tennesseans with a Bachelor’s Degree by 2025)
2.2 Regulatory Partnerships
2.5 Livestock Welfare Oversight
3.1 Refocus the Tennessee Agricultural Enhancement Fund
1.7 Global Market Access
2.6 Support Tennessee Farm to Table Industry and Policy Development
1.1 Rural Balance Sheet

*UTIA Role*

**Eastern:**
- Develop metrics.
- Establish values of elements.
- Use the data for program planning (tie with 1.2).

**Central:**
- Work with partners.
- Provide technical expertise.
- Facilitate completion.
- Involve Department of Agricultural Economics.
- Define assets.
- Publicize significance of agriculture.

**Western:**
- Collect and analyze data. Build consensus on criteria. Form partnerships.

*Opportunities/Strategies*

**Eastern:**
- UT best organization to compile — unbiased.
- Shared objectives across multiple state agencies.
- Create Economic Assessment list.
- Try to cover as many aspects as possible.

**Central:**
- Include value of wildlife resources.
- Work with statewide leadership to identify items to measure.
- Look for other examples.
- Create bragging rights for business recruitment and economic development.
- Work with FSA, NRCS, Farm Credit to gather data.
- Use ground level UTIA people (Extension at all levels).
- Measure natural resource and economic value of such (river corridors, ecosystems).
- Identify availability of data.
- Identify agricultural land for future (urban sprawl).
- Identify water resources.
- Identify water sheds — include rural community economic development.

**Western:**
- Partner with ag leadership on items for the balance sheet.
Challenges/Needs

Eastern:
• Follow-through and action on results.
• Design and analysis expertise — technical capacity to handle data.

Central:
• Some data may not be readily available.
• Identify bullet points as to significance of agriculture.
• Ecosystem services hard to quantify but many are engaged.
• Quantify value for non-tangible.
• NON-TANGIBLE = NON-STANDARD.
• Funding — by source other than UT.
• Wide variety of data formats — from napkins to thumb drives.
• Planning or lack of planning.

Western:
• Accurate and current data.

Importance Scale Responses

Combined score: 26   Rank: 1 of 17
1.5 Achieve Recognition of Agriculture and Forestry As a State Priority

**UTIA Role**

Western:
- Educate policymakers.

**Opportunities/Strategies**

Western:
- Educate local leaders and legislators about economic importance of ag and forestry.

**Challenges/Needs**

Western:
- This education **must** be taken to the policymaker and provided to them on a level that they understand from a state priority.

**Importance Scale Responses**

Combined score: 6 Rank: 9 of 17

1.7 Global Market Access

**UTIA Role**

Western:
- Educate policymakers.

**Opportunities/Strategies**

Western:
- Work with private industry, state and local governments to find economically viable projects.
- Trade Teams to Tennessee from Tennessee.
- Work with other agencies to educate public on best and worst case scenarios regarding future infrastructure.

**Challenges/Needs**

Western:
- Global price will not be affected.

**Importance Scale Responses**

Combined score: 1 Rank: 16 of 17
2.2 Regulatory Partnerships

UTIA Role

Western:
• Ensure that objective research-based information is available.

Opportunities/Strategies

Western:
• Provide science-based data.
• Make sure best practices are followed to prevent more regulation.

Challenges/Needs

Western:
• Deliver accurate data to general public and lawmakers.

Importance Scale Responses

Combined score: 2 Rank: 13 of 17
2.4 Ensure Agricultural Priority Use of Water

**UTIA Role**

**Eastern:**
- Research and education on water use and priority needs.

**Western:**
- Provide irrigation information. Educate on legislative issues. Provide relevant research.

**Opportunities/Strategies**

**Eastern:**
- Water is going to be a key resource.
- Offer classes such as Yards and Neighborhoods for the public — to understand the importance.
- Put a dollar value on water … then manage it.
- Provide information about why this is important.

**Western:**
- Lead in policy making.
- Work with users of water: recreation, farmers, cities and industry.
- Use proper irrigation practice before it becomes regulated.

**Challenges/Needs**

**Eastern:**
- Little or no data.
- Bringing in proper educators.
- UT role? Is USGS better at this?
- Users may be willing to tell the truth about their actual usage of water.
- There is little knowledge in general public about why this is important.

**Western:**
- How to determine priorities and use management.
- Irrigation efficiency.
- Water quality issues.
- Public information.
- Public perception.

**Importance Scale Responses**

Combined score: 8  Rank: 8 of 17
2.5 Livestock Welfare Oversight

*UTIA Role*

**Central:**
- Provide standardized education but **not** enforcement.

**Western:**
- Assist and educate but do not lead investigations.

*Opportunities/Strategies*

**Central:**
- Define minimum care standards.
- Coordinate with TDA/Ag Crimes Unit on enforcement.
- Educate nonagricultural community on animal behavior.
- Realize the values of BMPs vs. guidelines.
- UTIA should approve **any** investigators and **any** powers permitted.
- Equip and train an entity to do law enforcement.
- Provide experts to determine level of care/standards for industry.

**Western:**
- Work with Department of Agriculture Enforcements units.
- Work with TDA to develop better legislation.
- Educate public about what constitutes abuse.
- Support TDA oversight.

*Challenges/Needs*

**Central:**
- Anti-groups that are not concerned with the health and well-being of animals but are concerned only with fundraising.
- Enforcement to be handled by TDA, NOT Extension.
- Need criminal justice background.

**Western:**
- Educate public about animal welfare.
- Provide funding for oversight at TDA.

*Importance Scale Responses*

Combined score: 2  Rank: 13 of 17
2.6 Support Tennessee Farm to Table Industry and Policy Development

*UTIA Role*

**Eastern:**
- Provide research and education to support emerging crops and other agricultural enterprises.

*Opportunities/Strategies*

**Eastern:**
- New businesses and opportunities.
- Tennessee needs a “Poster Child” other than Jack Daniels!
- To list items for the farm to table concept.

*Challenges/Needs*

**Eastern:**
- Educate the public of the new opportunity.
- Have a campaign.

*Importance Scale Responses*

Combined score: 1  Rank: 16 of 17

3.1 Refocus the Tennessee Agricultural Enhancement Fund

*UTIA Role*

**Eastern:**
- Provide expertise to accomplish TAEP goals. Unbiased evaluation and planning.

*Opportunities/Strategies*

**Eastern:**
- Provide needed incentives to make changes to accomplish increasing beef herd, dairy production, etc.
- Producers’ bottom line “(ROI)”.
- Create online Master’s programs.

*Challenges/Needs*

**Eastern:**
- Permanent, non-legislative funding source.

*Importance Scale Responses*

Combined score: 2  Rank: 13 of 17
3.2 Enhance Marketing of Agricultural Products/Improve Farm Income

**UTIA Role**

**Eastern:**
- Research market demands.
- Enhance existing marketing programs.

**Western:**
- Research.
- Public relations.

**Opportunities/Strategies**

**Eastern:**
- Encourage participation.
- Work with new ideas coming from producers to enhance profitability.
- Local Extension staff coordinate workshops for producers.
- Utilize Center for Profitable Agriculture.

**Western:**
- Collaborate with organizations promoting income development, such as Pick TN Products.

**Challenges/Needs**

**Eastern:**
- Better understanding of markets and consumer.

**Western:**
- Loss of traditional income sources.
- Sources need to innovate.

**Importance Scale Responses**

Combined score: 5  
Rank: 10 of 17
3.3 Stimulate Rural Enterprise Innovation in Tennessee

**UTIA Role**

**Eastern:**
- Create public/private and university partnerships.

**Central:**
- Collaborate with partners/agencies and private enterprise.

**Opportunities/Strategies**

**Eastern:**
- Create economic opportunities, increase return on investment.
- Innovation is a key to the future.

**Central:**
- Seek new ideas toward profit/commercial business.
- Incubation.
- Partner with conservation NGOs to monetize natural resource conservation to show economic return.
- Expand “long-term” incubator activities to end results and value determination.
- Expand job opportunities in rural communities.

**Challenges/Needs**

**Eastern:**
- Create a way for all parties to work together with “skin in the game,” with positive economic results.
- Innovation is hard to define.
- To get private participation.

**Central:**
- Maintain “public” role, keep private industry/market driven “discipline.”
- Incubation funding.
- NGO conservation groups are not invited to the table.
- Identify rural locations able to support this.
- Being able to say “NO” when needed.

**Importance Scale Responses**

Combined score: 11 Rank: 6 of 17
4.1 Promote and Endorse the Drive to 55 (55 percent of Tennesseans with a bachelor’s degree by 2025)

**UTIA Role**

**Central:**
- Identify needs of labor force and align curriculum with needs.

**Opportunities/Strategies**

**Central:**
- Department advisory committees.
- Increase Board of Regents and local funding for community colleges.
- Identify needs in trade schools, coordinate participation.
- Use of 55 value in agricultural education with sciences.
- Tie in with 4.6.

**Challenges/Needs**

**Central:**
- What is it?
- Scholarship funds.
- Relevance in the complete 55 program.

**Importance Scale Responses**

Combined score: 3  Rank: 12 of 17
4.2 Increase Funding Support for Research and Extension/Stable Funding for UTIA

UTIA Role

Eastern:
• Work with legislature and clientele groups to show return on investment.

Central:
• Formula-based funding; inform and educate stakeholders who can gain support.

Western:
• Seek funding opportunities for revenue beyond state of Tennessee.
• Educate legislators.

Opportunities/Strategies

Eastern:
• Conduct local and regional evidence based research.
• With the right people this can be a “Profit Center.”

Central:
• Define return on investment and communicate.
• Use rural balance sheet for justification.
• Define/measure what UTIA contributes on larger scale to lobby for more support money.
• Have programs that are fee-based.
• More alternative educational methods offered.
• Industry funded research.
• Show commitment to natural resource conservation to broaden base of support.

Western:
• Commodities for Communities expansion.
• Check-off funding for research.
• Emphasize applied research.
• Doable research.

Challenges/Needs

Eastern:
• Local collaboration “Buy In.”
• Many legislators are non-ag background. More interaction with farmers.
Central:
• NGO conservation not invited to table to show demonstrate support.
• Programs must be relevant.
• Access to broadband.

Western:
• Adoption by producers, need long-term strategy.
• Interact with industry reps.
• More interaction with farmers.

Importance Scale Responses

Combined score: 24    Rank: 2 of 17
4.3 Increase Youth Education Programs

UTIA Role

Eastern:
• Lead youth education programs and develop partners to provide agricultural education.

Central:
• Keep program relevant.
• Promote life skills.
• Find partners for West Tennessee Center — operate as a profit center.

Western:
• Provide personnel and funding sources.
• Promote views and vision for programs and center.

Opportunities/Strategies

Eastern:
• Merge with 4.5 and 4.5.
• Partner with I.F. T and Feeding Tomorrow.
• Provide classes for the future of higher education.
• “Internship” (hands-on) opportunities.
• Position 4-H/FFA as leadership development organizations.
• Recruit local people as speakers and program presenters.

Central:
• Youth are our future — continue to increase Agricultural and Natural Resources programs.
• Need to teach Agricultural and Natural Resources as business as well as a science.
• Urban agriculture (gardening, chickens, food production).
• Have more web-based education programs, info that sells programs.
• Publicize positive agricultural role models to youth (Make Ag Cool!).
• Utilize current leaders as spokespersons.

Western:
• Use a business conference center to bring focus to our youth and their importance to the future of agriculture.
• Promote agricultural involvement of youth.
• Focus on STEM.

Challenges/Needs

Eastern:
• Getting into the classroom.
• Agricultural education is not thought of as “fun.”
• Working with local school boards.
• Agricultural education is often an easy class with dead end.
• Is existing priority and funding adequate?
• Training locals in how to best reach youth with message.
Central:
- Promote new Agricultural and Natural Resources concepts.
- Funding.
- Partner with urban schools to dedicate space for agriculture.
- Investment in technology and people to do
- How to find time with attractive activities available to youth.

Western:
- Funding (need to show how this supports the entire state).
- Self-sustaining year-round activities, calendar of events, weddings, conferences, family reunions, equestrian, church events.
- Create incentives.

Importance Scale Responses

Combined score: 19  Rank: 5 of 17
4.4 Increase Support for CTE, etc. (Secondary Education)

**UTIA Role**

**Eastern:**
- Help with Department of Education to change image of agricultural education.

**Opportunities/Strategies**

**Eastern:**
- Develop joint plan with CTE council to improve Department of Education focus.
- Offer classes to bring students to the next level.
- Partner with Department of Education at least in sharing labor assessment.

**Challenges/Needs**

**Eastern:**
- Attitude of some “educators” to agricultural education.
- Strong statewide 4-H program.
- Change the image of modern agriculture.

**Importance Scale Responses**

Combined score: 4  Rank: 11 of 17
4.5 Enhance Agricultural Literacy Program

UTIA Role

Eastern:
- Utilize staff to teach curriculum in schools.

Central:
- Work with AITC and other organizations and Department of Education.

Opportunities/Strategies

Eastern:
- Partner with AITC.
- Develop agricultural curriculum to be used by 4-H Extension staff.
- Have a goal to have 4-H classes once a month in each elementary and middle school classroom in Tennessee.
- Have a program that encourages agricultural education.
- Many agricultural producers are on local Board of Education groups.

Central:
- Students in “cities.”
- Petition State Department of Education to require one agricultural course for graduation or one agricultural subject per year.
- Use HSUS’s strategy to enhance agricultural literacy.
- Include Department of Agriculture.
- Find all “agricultural” partners to pool resources and talents.
- Develop Tennessee programs and dovetail on national.
- Have a County Fair program.

Challenges/Needs

Eastern:
- Man hours.
- Access to the classroom.
- Curriculum already very tightly structured.
- Local TEM coordinators may not be familiar with agricultural programs.

Central:
- They don’t care where their food comes from.
- Mixed focus, move to big picture.

Importance Scale Responses

Combined score: 11   Rank: 6 of 17
4.6 Review Higher Education Agricultural and Natural Resources Curriculum to Meet Employer Needs

**UTIA Role**

**Eastern:**
- Collaborate with producers, industry and employers to meet needs.

**Central:**
- Gather data and explore needed curriculum changes.
- Get input on needs from state agencies, businesses and farmers.

**Western:**
- Interact with industry to learn priorities.
- Produce employment ready students/graduates.

**Opportunities/Strategies**

**Eastern:**
- Speak with as many individuals or producers as possible about needs of curriculum on an individual basis.
- Expand internship opportunities.

**Central:**
- Key on change.
- Departmental adviser committees.
- Work with employers.
- Facilitate cooperation between university colleges and state agencies.
- Question former students.
- Tie in with 4.1.

**Western:**
- Educate with practical information/curriculum obtained from industry and producers.
- Offer online MS level curriculum in more agricultural areas.

**Challenges/Needs**

**Eastern:**
- People may not speak their mind unless interviewed in private.
- Time constrains to meet curriculum requirements.

**Central:**
- Credits for graduation.
- Rapidly changing needs of employers.
- Difficulty of busy employers finding time to express needs.
- Resistance.
- Funding demands.
**Western:**
- Diffuse barriers between industries and producers.
- Cost.
- Target plant sciences and technology.
- Need for asynchronous delivery of content.

*Importance Scale Responses*

Combined score: 20  
Rank: 3 of 17
4.7 Support Educational Programs Through Extension/Educate Through Research and Extension

**UTIA Role**

**Eastern:**
- Extension should continue strong role of education in distributing research-based information from UTIA.

**Central:**
- Provide personnel and expertise.

**Western:**
- Establish partnerships.
- Provide support.
- Document investment.
- Do extension.

**Opportunities/Strategies**

**Eastern:**
- Strong county Extension network.
- Excellent expertise at county and state Extension level.
- Research to generate evidence and extrapolate to economic impact.

**Central:**
- Emerging needs of full-time producers.
- Good way to identify needed and applied research.
- Expand programs to work with communities to expand rural economics (opposite to expanding commerce).

**Western:**
- UTIA to be the lead in information delivery.

**Challenges/Needs**

**Eastern:**
- More practical research to provide data and proof to producers.
- Local collaboration by commodity groups.

**Central:**
- Technologies may not be available or are proprietary.
- Many rural landowners never use or are unaware of Extension.

**Western:**
- Dollars to support.

**Importance Scale Responses**
Combined score: 20  
Rank: 3 of 17
Items for additional focus at future RAC meetings

**Eastern:**
- Close-in wins, low hanging fruit, successes.
- Livestock welfare.
- Poll the group from a list of topics.
- Need recognition of agriculture as a business (not just open land).

**Central:**
- Branding of UT.
- More on the natural resources side of UTIA.
- Coordinate with agricultural programs at community colleges (admissions/transfers, etc.).
- Report back on meeting with governor.

**Western:**
- Water.
- Research funding.