

**Farm
Bureau®**
Tennessee

THE *Voice of Agriculture*®

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POLICY DEVELOPMENT

2023

2023 Policy Development

Dear Grassroots Leader,

Thank you for joining us for another year of great conversation as we work to develop our guiding policies and resolutions. Over the last year we have celebrated great accomplishments for the agriculture industry, including the passage of deannexation for agricultural properties - which allows for a process for landowners to petition to deannex from a municipal boundary if they meet the qualifications. We appreciate the work of those who contacted their lawmakers and assisted with the final push across the finish line.

We also hosted members of the House Agriculture Committee in Tennessee for the first ever Farm Bill Listening Session. This unique event allowed for stakeholder input, farm tours, and wonderful dialogue between Tennessee farmers and our Congressional delegation. See the cover of this book for a snapshot of the event!

The rear interior cover references prior Policy Development Papers. We encourage you to take a look and read more about the policies discussed at meetings held in previous years. Tennessee agriculture continues to move forward on the local, state, and federal level and this would not be the case without your passionate support.

If our division can ever be of assistance, please do not hesitate to reach out. We look forward to the year to come!

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State Issues

Purchase of Agricultural Conservation Easement Programs

Key Takeaways

- Purchase of Agriculture Conservation Easement (PACE) Programs compensate property owners for keeping their land available for agriculture. Typically, PACE programs consider the quality of the soil, threat of development or fragmentation, and the overall future agricultural viability.
- As of 2023, 29 states administer a PACE program, with varying terms of eligibility, payment rates, and qualifiers.
- According to the American Farmland Trust, Tennessee has recently been named the third fastest at losing farmland to non-agricultural purposes in the nation – moving from fourth in previous years.
- Last year, Tennessee Farm Bureau added policy to our Resolutions to urge the Tennessee Department of Agriculture, University of Tennessee, and Farm Bureau to study and evaluate solutions for farmland loss.

Questions

1. **If available, would you consider enrolling your land into an agricultural easement program? Why?**
2. **What are some characteristics of a farmland preservation program you would be interested in?**
3. **Should the State of Tennessee allocate budget dollars into incentivizing farmland owners to keep their land in production agriculture?**

Background

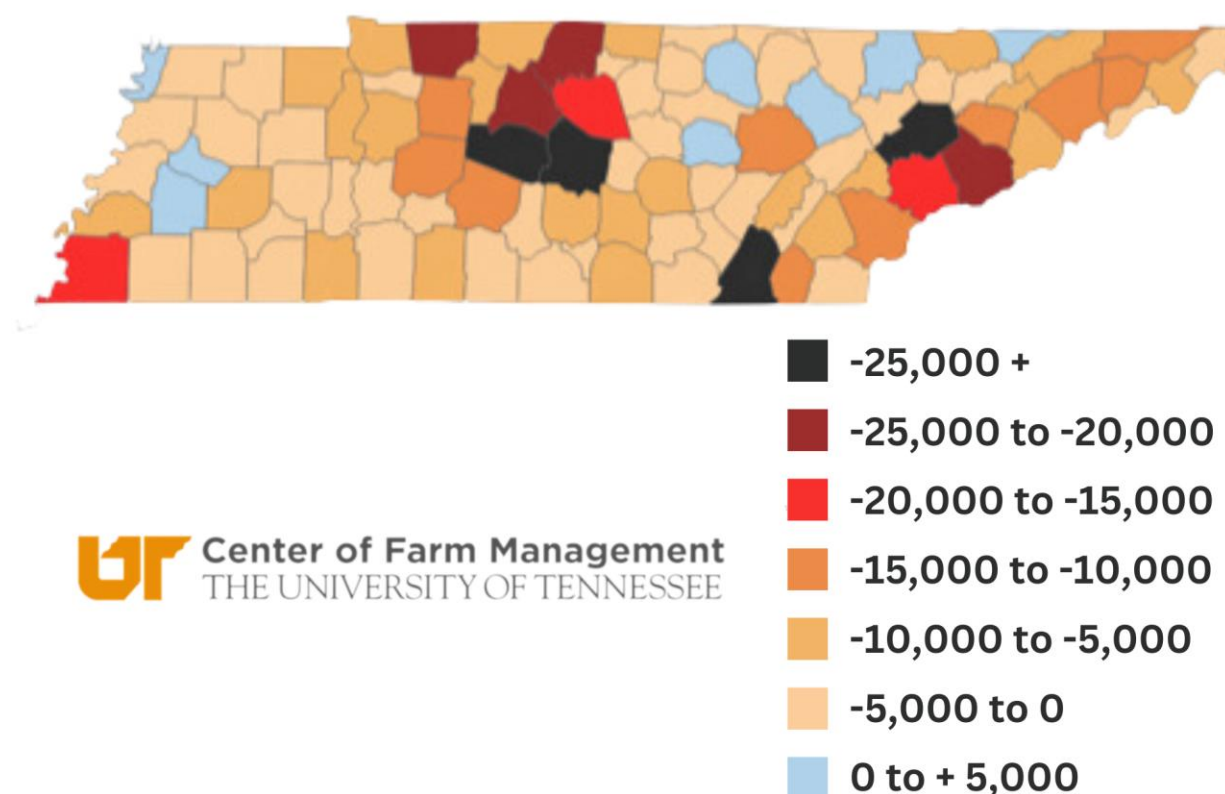
Established in the 2014 Farm Bill, Agriculture Conservation Easement Programs (ACEP) set up the structure for Purchase of Agriculture Conservation Easement (PACE) programs. PACE programs compensate property owners for keeping their land available for agriculture. These incentive programs typically consider the quality of the soil, threat of development or fragmentation, and the overall future agricultural viability. Although ACEP is only shy of ten years old, forms of PACE programs have been in existence since 1974 and currently 29 states administer a program, with varying terms of eligibility, payment rates, and qualifiers.

PACE programs formed to keep crucially variable farmland out of development and to appeal to landowners subject to residential development, nuisance complaints from surrounding areas, higher real estate tax costs, and overall conversion to non-agricultural use. The farmland owner

Tennessee has recently been named the third fastest at losing farmland to non-agricultural purposes in the nation – moving from fourth in previous years.

can continue to farm as before and retains their ability to sell or transfer real estate, but by separating development rights from agricultural use, the imposition of a conservation easement can reduce the barrier to entry for new and beginning farmers and removes any exterior incentives to convert farmland to non-agricultural use.

AG LAND CHANGE BY ACRE



Tennessee finds itself at a crossroads between growth and preserving its rural history. According to the American Farmland Trust, Tennessee has recently been named the third fastest at losing farmland to non-agricultural purposes in the nation – moving from fourth in previous years. We appreciate the work of the University of Tennessee Center for Farm Management for working through data in all 95 counties to provide clarity on this statistic. As shown in the map, growth can be seen in almost all of Tennessee’s counties, especially those located in or near urban areas.

When faced with preserving vital agriculture land without inhibiting growth and economic progress, some states have turned to implementing these PACE programs. Georgia was the most recent state to adopt legislation to execute a PACE program, termed the “Georgia Farmland Conservation Fund”. This fund is a voluntary program administered by the Georgia Department of Agriculture, but also establishes a 14-member council exterior to state government to provide oversight and approval for the applications submitted. Funding for the

program is provided by allocated state dollars, public or private grants, as well as matching federal funding. Currently, \$450 million is allocated annually by the United States Department of Agriculture in matching funds for state farmland conservation programs. Other states who have PACE programs include Florida, Kentucky, Delaware, and Pennsylvania, among others. The American Farmland Trust has compiled detailed information about each state who offers a PACE program. Scan the QR code for more information.



Last year, Tennessee Farm Bureau added policy to our Resolutions to urge the Tennessee Department of Agriculture, University of Tennessee, and Farm Bureau to study and evaluate solutions for farmland loss. This group has been meeting regularly to review county data, work with other stakeholders on potential solutions and make suggestions to the Governor's Office on potential policy solutions to combat the declining farmland across our state. The University of Tennessee has compiled some of the changes in both agricultural and developed land into an interactive map resource. Both QR codes are linked to those maps below:

Change in Developed Land



Change in Agriculture Land



Policy

Tennessee Farm Bureau

Improving Family Farm Income (Partial)

The loss of family farmers is nearing a level that should be alarming to all Tennesseans. If the public, government, and all commodity producers do not become more involved and work cooperatively together to find solutions, the agricultural industry in Tennessee could deteriorate beyond levels of recovery. Maintaining a strong viable agricultural sector is important to Tennessee, our region, and the United States. We urge the Tennessee Department of Agriculture, University of Tennessee, and Farm Bureau to study and evaluate solutions for farmland loss.

Land Use Planning (Partial)

We oppose encroachment of federal, state, and local governments on Tennessee agricultural and forest lands. Public entities should never be allowed to condemn more property than is actually needed for a project. Former owners should have the first right of refusal of condemned property that is no longer needed. Prime farm and forestland should not be condemned when other lands are available and well suited. We oppose this type of taking of private property. Landowners have the major responsibility for its development and conservation. Sale of development rights, land trust, and/or conservation easements should always be a voluntary option for interested landowners. The right to sell land must remain in the hands of landowners.

Tennessee is losing valuable farmland to urbanization. The agricultural district law and farmland trust are both voluntary tools for the protection of farmland. Efforts to educate farmers on the availability of these options should be enhanced.

County Farm Bureaus should engage local government policy makers to encourage smart-growth policies which promote and protect agricultural interests. Protecting prime agricultural land from development should be a top priority. Decision makers should carefully consider the consequences of each proposed project, which erodes Tennessee's valuable farmland resources. Such uses should receive a low priority in consideration of state funding needs.

Farm Policy (Partial)

We support increasing the Agricultural Conservation Easement Program (ACEP) funding. The ACEP is a method to protect and restore grasslands while still allowing grazing practices, haying, mowing and harvesting of seeds. The program supports grazing operations, plant and animal biodiversity on lands under threat of conversion to non-agricultural uses. We support wetlands reserve easements under ACEP; however, permanent easements should not be allowed as a part of this program. No easements or restrictions should be placed on lands exiting ACEP and drainage and regulatory wetland status should be allowed to return to the status existing before enrollment. Management of ACEP contracts should not be allowed to adversely affect drainage or usability of adjacent tracts.

American Farm Bureau

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8. Farm Bill Principles

8.2 Other Principles

8.2.6 Agricultural Conservation Easement Program (ACEP)

8.2.6.1 We support:

8.2.6.1.1 Increasing ACEP funding, and

8.2.6.1.2 Increasing the ceiling on the eligible federal share for ACEP conservation easement to 80% of the easement value.

Night Hunting of Coyotes

Key Takeaways

- Livestock predation by coyotes poses a significant threat to producers across Tennessee.
- There are currently no limits on the number of coyotes a farmer can take on their property to protect their livestock, and coyotes can be hunted and trapped year-round in Tennessee.
- In 2020, the Tennessee Fish and Wildlife Commission (TFWC) proposed allowing night sport hunting of coyotes, and TFBF voiced many concerns with this effort.
- Conversations around this issue have picked up again in recent months.

Questions

1. **Should Farm Bureau work to include coyotes in the list of species that may be hunted both day and night?**
2. **If it were to be allowed for coyotes to be hunted at night, should hunters be allowed to use calls and night sight devices while hunting coyotes?**
3. **Effectively hunting coyotes involves the use of rifles. How should the issue of firing a rifle at night without a line of sight be addressed?**

Background

Coyotes have been prevalent in Tennessee as early as the 1960s. With a lack of a natural predator other than humans, coyote numbers continue to increase across the state due to ample food sources and ideal habitat such as forests, farmland, shrubland, and even urban areas.

Livestock predation by coyotes poses a significant threat to producers across Tennessee. Reports of damage by coyotes have increased across the state, costing livestock producers upwards of thousands of dollars in losses. There are currently no limits on the number of coyotes a farmer can take on their property to protect their livestock, and coyotes can be hunted and trapped year-round in Tennessee. Farmers can also allow designees to hunt coyotes on their property with their permission.

Legal sport hunting of coyotes and other game species can occur during daylight hours, which is defined as one half-hour before legal sunrise to one half-hour after legal sunset. In 2020, the Tennessee Fish and Wildlife Commission (TFWC) proposed allowing night sport hunting of coyotes, and TFBF voiced many concerns with this effort. Ultimately, it did not pass, and it is currently prohibited by the TFWC to use any predator calls, night vision scopes, or thermal imaging devices while hunting at night. However, conversations around this issue have picked up again in recent months.

Legal sport hunting of coyotes and other game species can occur during daylight hours, which is defined as one half-hour before legal sunrise to one half-hour after legal sunset.

Proponents believe the benefits of night sport hunting of coyotes include increased opportunity to control coyote populations across the state and for farmers to protect their livestock. Concerns include safety, particularly during times of heavy farm activity. Stray bullets and the unknowns surrounding line of sight in the dark pose significant threats to safety of farmers and rural residents. Another concern is the potential harm to livestock. As is seen in whitetail deer hunting seasons, cattle and other livestock commonly get stricken by bullets intended for wildlife. Finally, allowing night hunting of coyotes increases the potential for trespassing and other crimes committed on private lands which continue to be difficult to police.

Policy

Tennessee Farm Bureau

Wildlife Pests and Wildlife Management Programs (partial)

TWRA and federal authorities should expand current acceptable procedures available to individual property owners to control or eliminate wildlife that is causing damage to crops or property and injury or death to livestock. Under current TWRA regulations landowners and their designees have authorization to control coyotes threatening their livestock on their own property. These regulations allow the use of artificial light at night. We support affording the landowner the right to protect his or her property but oppose night sport hunting of coyotes for fear of hunters not knowing what lies beyond their intended target.

Prior Notification for Surveying Property

Key Takeaways:

- In 2023, legislation was introduced which would require adjoining landowners be notified prior to a survey being conducted.
- Currently, adjoining landowners are only to be notified if a discrepancy is detected between the deed descriptions after a survey is completed.
- Landowners have noted experiences where surveys were misread, and discrepancies were not communicated but claim if they had been notified prior to the completion of the survey, they may have been able to assist in clearing up any confusion.
- Opponents of the legislation cited unknown additional costs for notifying property owners, safety concerns and unlisted property owners.
- Some lawmakers expressed concern about forcing property owners to notify their neighbor about the survey in the view this requirement infringes on the requesting property owner's rights.

Questions:

1. **Should adjoining landowners be notified if a survey is scheduled to be conducted?**
2. **If so, how should a property owner be notified?**
3. **As a private property owner, do you feel your private property rights are being infringed upon if you are forced to notify a neighbor in the event you want to complete a survey?**

Background

In January of 2023, legislation was introduced to require land surveyors to notify all adjoining property owners prior to a survey being conducted. This amends the current law which only requires notification in the event there is a discrepancy detected between the deed descriptions after the survey is completed. The sponsoring lawmaker met with Tennessee Farm Bureau and other interested industry stakeholders on potential amendatory language which would state a "best effort" must be made to contact all adjoining property owners and would not apply to platted subdivisions or court ordered boundaries. The amendment discussion also included how to protect surveyors and the dangers they may be faced with when completing a survey such as aggressive dogs or other intents to harm by an adjoining property owner by creating a Class C Misdemeanor to one who tries to inhibit a surveyor from doing their job and exercising their right of entry. However, after consulting with members of the House Business and Utilities Subcommittee of the Commerce Committee, the sponsor took the legislation off notice in response to opposition by the Tennessee Association of Professional Surveyors and the understanding there were not enough votes to pass the bill out of the subcommittee.



Bill Tracking for
HB52/SB1296

Prior notification is a typical best practice for many in the surveying industry, as their standard of practice requires adjoining property owners' information be included in the final survey. Southern states

such as Kentucky, Mississippi, and Texas all have similar laws requiring notification of adjoining landowners. It was the legislative intent of the sponsor to provide transparency to property owners as well as provide added protection to surveyors who may face right of refusal when trying to gain access onto a property.

Opponents of the legislation cited unknown additional costs for notifying property owners, such as sending notifications via certified mail to ensure receipt of the notice for professional protection. Other questions included how to navigate those who were declared as “unlisted” as a property owners name on searchable property databases as well as how far should a surveyor go to consider a “best effort” without additional staffing or assistance resulting in a higher cost of service to the requesting property owner. Safety is also a concern, as some surveyors met with the sponsor of the legislation and described instances where they had been shot at, attacked by dogs, etc. and the fear of a rogue adjoining property owner who “knows they’re coming” could allow them time to prepare to cause harm or inhibit a surveyor from completing their job effectively. Furthermore, some lawmakers expressed concern about forcing property owners to notify their neighbor about the survey in the view this requirement infringes on the requesting property owner’s rights. This also applies to those looking to sell or purchase property.

Because the legislation was taken off notice without being considered in committee, it is still in a posture where it could be considered in the second half of the 113th General Assembly, which reconvenes in January of 2024.

Policy

Tennessee Farm Bureau Property Rights (Partial)

Relationships of adjoining landowners are better maintained when property boundaries are clearly identified. Sometimes surveyors and attorneys make mistakes drawing property lines and writing deeds. Adjoining property owners should be notified when a survey is to be done. When the survey is being done, if a discrepancy is believed to exist the adjoining property owner where the discrepancy exists should again be notified by surveyors or attorneys. The surveyor should work with the adjoining landowners to resolve any discrepancies before recording the survey. A property owner should not bear the cost of defending a challenge to an established survey or boundary line which was determined to be correct.

We urge landowners to contact the Tennessee Board of Examiners for Land Surveyors when they have complaints concerning surveys/surveyors.

Current law requires notification in the event there is a discrepancy detected between the deed descriptions after the survey is completed.

Southern states such as Kentucky, Mississippi, and Texas all have similar laws

TACIR Report on Utility Scale Solar

Key Points:

- In 2022, the Tennessee General Assembly passed legislation requesting the Tennessee Advisory Commission on Intergovernmental Relations (TACIR) to conduct a study on the overall effect of utility scale solar energy development.
- The draft report was published at the June 2023 meeting, with the final report scheduled to be reviewed and approved in September of 2023.
- Local governments also have a role to play in the discussion surrounding solar development and expansion. Of the 26 operational and in development solar facilities in Tennessee at the time of the draft study, 18 are in counties which have adopted zoning.

Questions:

1. **Should legislative action be taken to limit the development of solar energy in Tennessee?**
2. **Does your county have zoning restrictions for solar development?**

Background

During the 112th General Assembly, Tennessee Farm Bureau worked with lawmakers to pass Public Chapter 1043, which instructed the Tennessee Advisory Commission on Intergovernmental Relations (TACIR) to conduct a study on the overall effect of utility scale solar energy development in this state, raising 14 specific points to address. This study is scheduled for final review and approval in September of 2023; however, the draft report was reviewed in June 2023.

A TACIR study investigates questions posed in the enacting legislation, as well as makes recommendations for action based on their findings. These recommendations are submitted to the General Assembly where members can decide whether action should be taken legislatively. TACIR made three recommendations in this draft report:

1. The TDEC Office of Energy Programs continue to expand and maintain their existing website with additional guidance and resources on utility-scale solar for local governments, landowners, developers, and the public.
2. The TDEC Office of Energy Programs continue to expand and maintain its webpage which provides guidance and resources on residential solar for the public.

A TACIR study investigates questions posed in the enacting legislation, as well as makes recommendations for action based on their findings. These recommendations are submitted to the General Assembly where members can decide whether action should be taken legislatively.

View the Draft Report



3. The State should consider raising the penalty for violations of the Consumer Protection Act if the good or service involved has a value greater than a monetary threshold set by the state. The Commission recognizes care would need to be taken to avoid undermining the intent of the General Assembly's past efforts at tort reform.

Discussion points for the study included zoning authority of local governments, consumer protection for residential solar, and the concern farmland loss plays into the introduction of utility scale solar in an area. Tennessee Farm Bureau, as well as multiple other stakeholders, provided feedback and information relative to the rate at which Tennessee is losing farmland and expressed our concern on the effects large solar development may have on prime farmland in rural areas, areas which are also prime land for solar installations. The study sites Tennessee Valley Authority's goal of adding 10,000 megawatts of solar power generation by 2035 throughout its service area, but notes TVA's service area covers six other states aside from Tennessee. TACIR claims even if all facilities were located on Tennessee farmland, it would account for approximately 100,000 acres being taken out of production, "only 1% of farmland in the state". To alleviate the impact, the study suggests the use of dual-use solar or agrivoltaics, which are facilities built with solar panels raised higher above the ground, leaving room underneath to graze small ruminants like sheep or raise shade tolerant specialty crops such as tomatoes or blueberries.

Local governments also have a role to play in the discussion surrounding solar development and expansion. Implementing zoning ordinances could define the parameters which a solar facility could operate. Currently, 46 of Tennessee's 95 counties have adopted zoning. Of the 26 operational and in development solar facilities in Tennessee at the time of the draft study, 18 are in counties which have adopted zoning. Thus far, nine counties, Bedford, Fayette, Franklin, Greene, Hardeman, Haywood, Jefferson, Sullivan, Washington, and the city of Brownsville all have used zoning authority to set standards for utility-scale solar development. TACIR staff have compiled a few counties zoning resolutions in the draft report's appendix, which can be found by scanning the QR code.



Draft Appendix

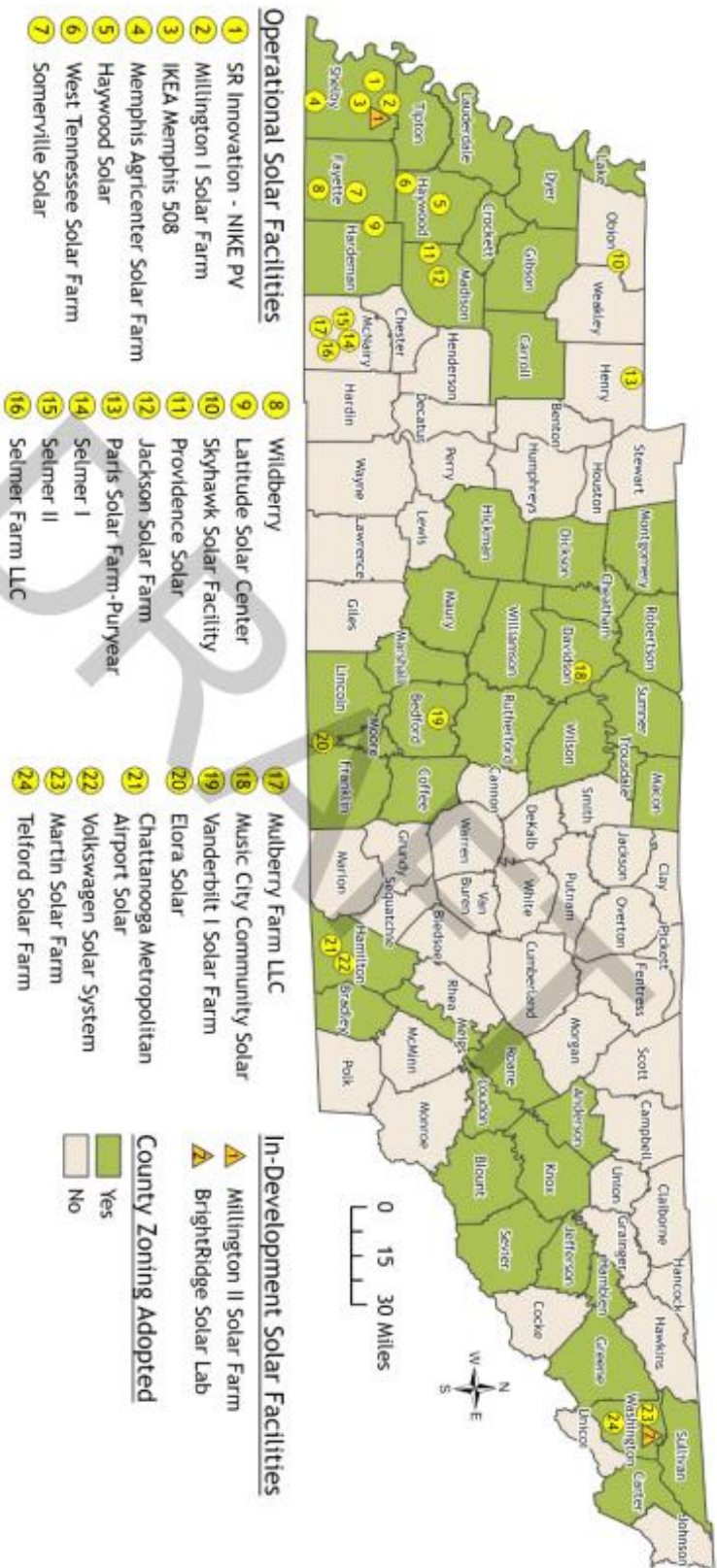
Of the 26 operational and in development solar facilities in Tennessee at the time of the draft study, 18 are in counties which have adopted zoning.

Where do we go from here? It is expected TACIR will present their final report for approval in September and subsequently send a copy of the final report to the legislature for review. From there, it will be up to the General Assembly to decide whether to introduce legislation which matches the recommendations of the TACIR report, or if separate legislation will be considered. Farm Bureau continues to work with the original sponsors of the legislation asking for the TACIR report on what subsequent steps should follow the final draft being filed.

In July of 2023, The University of Tennessee completed a study in collaboration with the Tennessee Solar Energy Industries Association called "Evaluating Potential Land Use of Utility-Scale Photovoltaics (Solar Panels) on Farmland in Tennessee". Scan the QR code to view this study.



Map 1. Utility-Scale Solar Facilities and Counties that have Adopted Zoning in Tennessee



Source: TACIR staff map from US Energy Information Administration 2022a; Silicon Ranch 2022a; Silicon Ranch 2022b; BrightRidge 2023; Hexagon Energy 2019; Origis Energy "TN Solar 1 - Skyhawk Solar," email received from Gil Hough, executive director, TennesseeSEA, February 27, 2023, and Skehan 2020.

Policy

Tennessee Farm Bureau

Energy (Partial)

Our economic well-being hinges upon our energy cost. The United States needs an energy policy that emphasizes expanded production of all forms of energy, including nuclear and hydrogen energy and the development of new forms of energy. Conservation alone is not the solution to our energy problem.

Market demand for energy will provide incentives for increased energy production and expanded research efforts. However, in the absence of truly competitive energy markets effective government regulations of price and terms are a necessity.

Impractical regulations at all levels of government create additional energy costs and discourage the development of energy sources. Environmental impact studies for new energy developments should account for the potential irreversible loss of productive agricultural land.

We support nuclear energy as a clean, safe, and affordable energy source. The United States must be realistic as we chart a course to guarantee future generations a self-sufficient energy supply. Environmental concerns, land area and lack of technology are just a few of the shortcomings preventing coal, solar and wind energy from being reliable sources of energy. The United States should be aggressive in research and development and expansion of our nuclear energy capabilities.

Renewable Fuels (Partial)

We endorse the “25 x ’25 vision” of Agriculture’s Role in Enduring US Energy Security which reads: “Agriculture will provide 25 percent of the total energy consumed in the United States by 2025 while continuing to produce abundant, safe and affordable food and fiber.

While a variety of renewable energy resources, including wind, hydro, solar, and geothermal, will be needed to meet this goal, we are particularly interested in the utilization of biomass from agriculture and forestry.

American Farm Bureau

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11. Solar Energy

11.1. We support:

11.1.1. Solar energy generation as a component of the nation’s energy portfolio;

11.1.2. Establishment of state standards for commercial solar energy conversion systems that protect private property rights and allow for reasonable development of projects;

11.1.3. Ensuring adequate funds are in place for decommissioning;

11.1.4. Allowing landowners the option of terminating a solar lease agreement if solar panels fail to produce energy for a period longer than 12 consecutive months; and

11.1.5. Efforts to locate solar energy projects on marginal or underused lands.

11.2. We oppose giving public utility status to solar energy or solar energy development companies.

National Issues

2023 Farm Bill Update

Key Takeaways

- Congress is currently having discussions about the next Farm Bill, and drafting is expected to begin after the August recess.
- Both Tennessee Farm Bureau and American Farm Bureau have established Farm Bill Working Groups to prepare and advocate for the next Farm Bill.

Questions

1. **Has there been any discussion in your community about the 2023 Farm Bill?**

Background

The farm bill is an omnibus, multi-year authorizing legislation which governs an array of agricultural and food programs. It is typically renewed about every five years. The 2023 Farm Bill is expected to contain 12 titles encompassing commodity price and income supports, crop insurance, farm credit, trade, conservation, research, rural development, energy, and foreign and domestic food programs, among others.

The current operating farm bill extends through the 2023 crop year and will cover the 2023/24 marketing year crops. Dairy provisions of the farm bill will expire in calendar year 2023. Congress is currently having discussions about the next farm bill. Now is the time for Farm Bureau leaders to think and discuss about what changes are needed to the Farm Bill structure.

Both Tennessee Farm Bureau and American Farm Bureau have established Farm Bill Working Groups to prepare and advocate for the next Farm Bill. American Farm Bureau has developed a website with information about the Farm Bill and has recently launched a nationwide campaign to educate and grow support.

Farm Bill passage and implementation has a unique timeline with serious consequences if lawmakers fail to adhere to it. Its five-year lifespan provides lawmakers the opportunity to update the programs, so they are relevant to current market and economic conditions. There have been 18 farm bills since the 1930s. If the farm bill were to expire without a new bill in place or if programs were not granted an extension by Congress, all of the programs would return to the 1949 bill, meaning reverting to support price programs for the limited number of commodities covered by the 73-year-old law. Adjusted for inflation, these support prices would

As of summer 2023, the Farm Bill is projected to cost \$1.5 trillion over the next 10 years – the largest investment in Farm Bill history.

Access more resources for the Farm Bill here:



be far above even the current elevated market. This helps drive the urgency farmers-and Congress-feel about passing this legislation in a timely manner.

As of summer 2023, the Farm Bill is projected to cost \$1.5 trillion over the next 10 years (FY2024-FY2033). For the 2023 Farm Bill, American Farm Bureau Federation aims to:

- Increase baseline for farm bill program spending;
- Maintain a unified farm bill which keeps nutrition programs and farm programs together;
- Any changes to current farm legislation must be an amendment to the Agricultural Adjustment Act of 1938 or the Agricultural Act of 1949;
- Prioritize risk management tools and funding for both federal crop insurance and commodity programs; and
- Ensure adequate USDA staffing capacity and technical assistance.

Policy

Tennessee Farm Bureau Farm Policy (Partial)

A national farm policy should contain the following concepts:

- A market oriented policy allowing farmers the freedom to make production decisions based on markets.
- Strong and effective safety net and risk management programs that protect producers from catastrophic occurrences.
- Affordable, practical and effective insurance products to further protect individual risks.
- Compliance with World Trade Organization (WTO) agreements.
- A marketing assistance loan program with loan rates that better reflect market values.
- Recognition of the needs of livestock, poultry and specialty crop producers.
- Full funding for conservation programs to assist landowners with federal environmental regulations and conservation goals.
- Increase funding for agricultural research and extension.
- Support for rural economic development including, but not limited to, access to quality and affordable broadband internet.

Priorities for reauthorizing future Farm Bills should include the following concepts:

- Increased funding for farm programs to reflect the current farm economy. Congress should at a minimum work within baseline funding without making cuts.
- Top priorities for funding should be crop insurance, commodity programs, conservation, and trade.
- Commodity program funding should not be shifted to conservation programs. Priority for conservation programs should be given to working lands programs over retirement land programs. We support a more efficient use of funding and spreading practices across more acres. The Conservation Reserve Program (CRP) should be reviewed to consider whether highly erodible land is the primary focus given the current farm economy.

- We support the seed cotton program.
- Farmers should have the option to update yields and base acres.
- If a farm permanently ceases active agricultural production, the associated base acres should be used to update county base acres.
- We support payments based on historic acres rather than planted acres to remain compliant with WTO.
- We support a cost effective risk management tool for livestock producers with less complexity and more flexibility.
- We support modifying the “actively engaged” rules to define the term “family” to include non-lineal familial relationships.
- We support the concept of a tax deferred farm savings account available for producers of all commodities to use as a risk management tool.
- Farmers should be automatically enrolled into both Agricultural Risk Coverage (ARC) and Price Loss Coverage (PLC) with payment determined by the more beneficial coverage plan.
- We support a reference price increase for all Title 1 commodities.
- We support increased funding to the Conservation Stewardship Program (CSP) and Environmental Quality Incentives Program (EQIP). The EQIP should allow for flexibility in addressing local and regional resource challenges, including groundwater sustainability and drought relief, resilience, and preparedness.
- We support a collaborative effort to provide cyber security resources to farmers and the agriculture industry.
- We support Beginning Farmer programs. We support the program lasting 10 years from the first filing of a Schedule F or until the individual is 35 years old, whichever is longer.
- We oppose any restrictions in overall funding for the Farm Bill.
- We oppose separating nutrition programs from other titles of the Farm Bill. The Farm Bill is the United States’ food security policy. We believe it serves the nation well for Congress to enact legislation ensuring a safe and abundant food supply along with access to food for those in need.
- We oppose decreasing payment limits. We oppose adjusting means testing in a way that captures more participants. We oppose applying payment limits and means testing to crop insurance premium discounts.

Foreign Trade (Partial)

Our government should give U.S. citizens and companies access to world markets. Retaliatory subsidies for our agricultural exports should be carried out if necessary, to give U.S. farmers an equal chance to compete in world markets. We support the use of export market development programs and export subsidies to recapture foreign markets taken from us by subsidized exports. Market development is key. The Farm Bill authorizes four programs to promote U.S. agricultural products in foreign markets, including the Market Access Program (MAP), the Foreign Market Development Program (FMDP), the Emerging Markets Program (EMP) and the Technical Assistance for Specialty Crops Program (TASC). Each program should be funded and used to the maximum allowed by law in an effort to increase our foreign markets.

See also full Farm Policy, Risk Management, Conservation Compliance, Wetlands, and Commodity Specific policies.

American Farm Bureau

For more information on American Farm Bureau's Farm Bill Priorities, scan the QR code below:



2023 Regional Bank Collapses

Key Takeaways

- In the spring of 2023, three regional banks in the US collapsed causing many to have concerns about the potential for a banking crisis.
- There is concern the bank failures will lead to making it harder to borrow capital, which can curb spending and weigh on economic activity. Borrowed capital is a primary production tool in modern farming.
- Some believe there is a need for more regulatory oversight of the banks, while others believe the Federal Reserve already has the needed regulatory oversight but failed to properly use its authority.

Questions

1. **Do farmers in your county use small or regional banks for their deposits and access to borrowed capital?**
2. **Have farmers in your county been limited in their ability to access borrowed capital following the bank collapse in the spring of 2023?**
3. **What is your opinion of the government's response to the bank collapses?**
4. **Is more regulatory oversight needed by the Federal Reserve to prevent bank collapses?**

Background

In the spring of 2023, three regional banks in the United States collapsed in a short time period from March to May causing many to have concerns about the potential for a banking crisis similar to what happened in 2008, which was a part of a global recession cycle. By summer 2023, indications are we are passed the critical phase of a further banking crisis, but there are long term concerns for small and regional banks. In the collapse of the three regional banks, the Federal Deposit Insurance Corporation (FDIC) took steps to protect depositors at these banks to transfer their assets to other larger banks around the country.

There is concern the bank failures will lead to making it harder to borrow capital, which can curb spending and weigh on economic activity. Borrowed capital is a primary production tool in modern farming. Locally owned independent community banks and regional banks are an important source of credit to farmers. Current Tennessee Farm Bureau policy supports every effort to keep locally owned banks a competitive source of agricultural credit.

Federal Reserve Chair Jerome Powell indicated in June the potential need for further oversight of the American financial system, while not providing details as to what this could look like. Reporting by the Associated Press express there are some officials within the Federal Reserve who believe banks should be required to hold more capital in reserve to protect against

Borrowed capital is a primary production tool in modern farming. Locally owned independent community banks and regional banks are an important source of credit to farmers.

potential loan losses. What response the banking industry would have to this potential new regulatory oversight would depend on the details of the proposal. Reporting indicates there are many in the financial sector who believe the Federal Reserve already has the needed regulatory oversight but failed to properly use its authority prior to the banks' collapse.

Policy

Tennessee Farm Bureau Agricultural Credit (Partial)

Locally owned independent, Tennessee community banks continue to be an important source of credit to farmers. Every effort should be made to keep locally owned banks a competitive source of agricultural credit. We urge these banks to have loan officers who are familiar with the agricultural industry.

American Farm Bureau 415 / Agricultural Credit

2.7. (We support the following principles) Federal banking regulators should establish sound risk-based capital requirements that continue in times of economic downturns;

2.8. (We support the following principles) Prospective borrowers should be protected from undue pressure to purchase insurance from institutions lending them money;

(continued)

4 Commercial Banks

4.1.1. (We support) Regulators striking a balance between banking capital requirements which preclude lending to qualified farmers and making sure that financing for agriculture does not repeat mistakes on credit worthiness;

4.3.1. (We oppose) Regulations that are restrictive, inflexible and damage farmers' and ranchers' ability to obtain and keep adequate financing;

4.3.2 (We oppose) Financially responsible institutions should not be penalized for the excessive risk taken by other institutions;

Electric Farm Equipment and GHG Emissions

Key Takeaways

- While there are very few electric farm vehicles in use today, much of the research and development for farm equipment is pursuing this technology.
- Major food companies have marketing initiatives to distinguish their products from competition by their carbon footprint. This will impact their demand on their supply chain, including farmers.
- The Inflation Reduction Act made changes to the Clean Air Act (CAA) indicating greenhouse gas emissions (GHGs) are considered a form of air pollution.

Questions

1. **Is the electric grid, including on-farm electricity, prepared for more farm equipment to be electric?**
2. **Considering GHG emissions are being treated as a pollutant, what are ways agriculture can lower GHG emissions?**
3. **What approaches should the federal government take to assist farmers in lowering GHG emissions?**

Background

While there are very few electric farm vehicles in use today, much of the research and development for farm equipment is pursuing this technology. According to Farm Journal, within the past year several manufacturers have released prototypes and plans for industrial-sized electric farm equipment, including CNH, Caterpillar, Doosan Bobcat, John Deere, Komatsu, Volvo, and Yanmar. Furthermore, Monarch Tractor has a fully electric and autonomous tractor which features 10 hours of runtime, 40 horsepower (HP) continuous, and 70 peak HP. These tractors have been used in the viticulture industry since 2020. Experts indicate these early prototypes appear to compete well with conventional equipment under 100 HP, while the technology is not ready to compete with higher HP equipment.

Many food companies are seeking to market their products as carbon-neutral and some believe electrification of farm vehicles is a step in this direction. Some argue market demand, not just government requirements, is leading to this trend. Major food companies have marketing initiatives to distinguish their products from competition by their carbon footprint. This will impact their demand on their supply chain, including farmers.

From a government perspective, the Inflation Reduction Act (IRA) passed by Congress and signed by President Biden in 2022 made changes to the Clean Air Act (CAA) indicating greenhouse gas emissions (GHGs) are considered a form of air pollution. Specifically, carbon dioxide, hydrofluorocarbons, methane, nitrous oxide, perfluorocarbons, and sulfur hexafluoride are defined as GHG pollutants subject to the CAA. It is expected for future Environmental Protection Agency rules to regulate methane emissions from oil and gas operations, decrease tailpipe emissions, and increase fuel economy standards. Reports suggest in the future USDA could condition the use of the grants, loans, and other forms of financial assistance it oversees to require agricultural practices to reduce emissions. Many

argue the agricultural industry must prepare for the changes which could be coming considering the potential for future GHG regulations, and one opportunity could be the use of electric equipment.

Policy

Tennessee Farm Bureau

Energy (Partial)

We support upgrading the electric grid infrastructure to ensure security, reliability, and survivability.

Litter and Waste (Partial)

The prevalence of electric vehicles continues to increase. The state of Tennessee should implement a plan for disposal of the batteries used in those vehicles safely, with an emphasis being placed on recycling.

Farm Input Costs (Partial)

We are concerned about consolidation by agricultural equipment dealers at the direction of equipment manufacturers. The loss of competitiveness among dealers severely restricts farmers' rights to find the best available price and is contrary to a competitive retail market.

Equipment manufacturers should be held to a high standard for product quality. We believe state laws should provide consumer protection for farmers that experience chronic maintenance problems on new equipment. We believe property rights should extend to every component of farm machinery. We support farm equipment owners and individual service technicians having access to diagnostic tools, equipment, procedures, service, and technical information necessary at a fair and reasonable price.

Renewable Fuels (Partial)

We oppose any effort to ban the use of internal combustion engines.

Air

Agriculture's contribution to air quality is incalculable. Clean air and filtration of the atmosphere by vast acres of crops, pastures and forests on private land mitigate impurities placed into the air by the infrastructure that provides a higher standard of living for each citizen of this state. Farmers should be rewarded for their role in protecting and enhancing our air resources and not penalized through costly and restrictive regulations.

Federal implementation of the Clean Air Act should be based on sound science. We support increased agriculture air quality research to establish accurate and reliable data on agricultural emissions. Agricultural emissions reductions should be accomplished through voluntary, incentive based programs. EPA should seek the direction and guidance of USDA on issues and policies regarding agricultural air quality.

We recognize the debate over climate change and policies to address it are complex and controversial. The economic effects of reducing greenhouse gas emissions (GHGs) are relatively unknown; however, strong evidence suggests participating countries would sacrifice production and industrial growth. Climate change is a global issue, not just a domestic issue. We believe the U.S. should not take action to curb GHGs until all nations adopt the same standards. We oppose regulating GHGs under the Clean Air

Act. Congress did not design or envision the Clean Air Act to address climate change. We oppose legislation to address climate change that could increase costs in agriculture and reduce agricultural production. We believe the task of feeding a growing world population supersedes the consequences of reducing GHGs from agriculture.

American agriculture continues to be a positive influence on the environment. We support the education of and full inclusion of agriculture producers as the leaders in the evidence-based research, development, and education regarding the tools and resources related to carbon sequestration measurement, management, and implementation in production agriculture.

Carbon markets in agriculture should be thoroughly studied to ensure the long-term viability of soil carbon offsets. Transitioning production practices and land use decisions to accommodate soil carbon offsets will require farmers to make an enduring commitment. These markets should be financially sound and based on field relevant scientific data. Participation in these markets should be voluntary. We also believe they should be an additional income opportunity and have no penalties for lack of participation.

The benefits of any clean air regulations placed on farm operations should exceed the costs placed on the agriculture industry. State and federal agencies should perform a cost benefit analysis on any air quality mandates, not just for agriculture but all types of affected businesses.

We oppose mandatory air quality standards for ozone and particulate matter on farmers and agricultural businesses. We oppose emission control standards being placed on farming practices, farm equipment, cotton gins, grain handling facilities or other businesses directly involved at the farm level in the production and marketing of agricultural products. Farm machinery that predates these standards should be grandfathered.

We support exemptions in the state's open burning regulations that allow for burning of wood waste and crop residue grown on the property of the burn site. However, this exemption should be broadened to allow for open burning of minor amounts of paper and other non-hazardous materials on farms where no other practical disposal alternative exists.

American Farm Bureau

404 / Renewable Fuels (Partial)

6. Engines and Vehicles

6.1. We support:

- 6.1.1. Research for better performing engines that run on renewable fuels;*
- 6.1.2. Legislation to require all new gasoline-powered vehicles be flex-fuel;*
- 6.1.3. Industry standards that would require all vehicles capable of burning E85 fuel to be equipped with a yellow gas cap to distinguish this capability; and*
- 6.1.4. Using renewable fuels in all federal vehicles where available.*

6.2. We oppose efforts to ban internal combustion engines.

503 / Climate Change (Partial)

1. Market-based incentives, such as carbon credit trading, are preferable to government mandates.
- 2.8. (We support) Market-based solutions, rather than federal or state emission limits, being used to achieve a reduction in greenhouse gas (GHG) emissions from any sources;
- 2.9. (We support) EPA's re-evaluation of burdensome emission control rules for farming practices, farm equipment, cotton gins, grain handling facilities, etc.;
- 2.17. (We support) Incentivizing farmers to voluntarily improve on-farm energy efficiency;
- 2.18. (We support) Incentivizing improvements to the current electric grid;
- 3.7. (We oppose) Any regulation of GHG by EPA;
- 3.8. (We oppose) Any attempt to regulate methane emissions from livestock under the Clean Air Act or any other legislative vehicle;
- 3.9. (We oppose) The imposition of standards on farm and ranch equipment and other non-highway use machinery;
- 3.10. (We oppose) Inclusion of the carbon impacts resulting from indirect land use changes in other countries in the carbon life cycle analysis of biofuels;
- 3.11. (We oppose) Taxes or fees on carbon uses or emissions;
- 3.12. (We oppose) Any and all emissions taxes on livestock;
- 3.13. (We oppose) Any laws or policies that implicate agricultural activity of any kind as a cause for climate change without empirical evidence;

506 / Waste Disposal and Recycling (Partial)

- 1.18. (We support) Proper disposal practices of electric motor vehicles and electric vehicle batteries. The manufacturers of electric vehicles should be held responsible for the payment of disposal fees related to electric vehicles.

Animal Health, Vaccines, and Animal Traceability

Animal Disease Traceability

Key Takeaways

- Animal Disease Traceability is the mechanism by which the United States tracks and traces animal diseases through the animal agriculture population.
- In March of 2022, after receiving stakeholder input during regional meetings, the USDA Animal and Plant Health Inspection Service (APHIS) published a proposed rule titled *The Use of Electronic Identification Eartags as Official Identification in Cattle and Bison*.
- The 2018 Farm Bill established an Animal Disease Prevention and Management Program.
- NCBA hopes to establish EID as the industry standard for individual identification by 2026.

Questions

1. Do you currently utilize EID tags in your operation?
2. If not, what factors keep you from utilizing EID tags?
3. TFBF and AFBF policy support a voluntary national animal identification program, rather than mandatory. Is this still the belief of Tennessee farmers?

Background

Animal agriculture across Tennessee and the nation has been riddled with disease outbreaks over the past few years. Highly Pathogenic Avian Influenza was reported in nine different flocks in Tennessee in the past year, the first case of *Theileria orientalis ikeda* was detected in a cattle herd in the summer of 2022, and three horses tested positive for Equine Infectious Anemia in 2021. Now, the impending arrival of African Swine Fever and Foot and Mouth Disease into the United States leaves livestock producers facing an ongoing threat of animal diseases with little to no options for treatment.

These current and impending threats have led to increased demand for Animal Disease Traceability (ADT) efforts from producers, industry, and foreign partners alike. ADT is the mechanism by which the United States tracks and traces animal diseases through the animal agriculture population. ADT was developed by USDA's Animal and Plant Health Inspection Service (APHIS) in 2013 with the goal of providing rapid and effective response to animal disease outbreaks.

One element of ADT efforts includes increasing the use of electronic identification (EID) eartags in cattle. In March of 2022, after receiving stakeholder input during regional meetings, APHIS published a proposed rule titled *The Use of Electronic Identification Eartags as Official Identification in Cattle and Bison*. This proposed rule would require all official eartags for cattle and bison to be readable both visually and electronically. Animals subject to the use of these tags include:

Current and impending threats have led to increased demand for Animal Disease Traceability (ADT) efforts from producers, industry, and foreign partners alike. ADT is the mechanism by which the United States tracks and traces animal diseases through the animal agriculture population.

all cattle and bison 18 months of age or older, all dairy cattle, and cattle and bison used for shows, exhibitions, rodeos, or recreational events. Tennessee Farm Bureau and American Farm Bureau participated in submitting comments regarding this proposed rule, which is awaiting a final rule. The rule will go into effect six months after the final rule is published.

In addition, the 2018 Farm Bill established an Animal Disease Prevention and Management Program. This program has 3 pillars:

1. National Animal Vaccine and Veterinary Countermeasures Bank – This bank ensures additional availability and readiness of vaccines, if needed, to control an outbreak of foot and mouth disease (FMD) in the United States. This is a US-specific bank and does not serve as a replacement for the North American Foot and Mouth Disease Vaccine Bank.
2. National Animal Disease Preparedness and Response Program – This program addresses the increasing risk of the introduction and spread within the United States of animal pests and diseases affecting the economic interests of the livestock and related industries of the United States, including the maintenance and expansion of export markets.
3. National Animal Health Laboratory Network – This network enhances the capability of the USDA Secretary to respond in a timely manner to emerging or existing bioterrorist threats to animal health.

At their convention in early 2023, the National Cattlemen’s Beef Association (NCBA) announced their goal to address disease traceability through the work of their Animal Disease Traceability Working Group. This group is working to pursue an ADT program which is industry driven, maintains producer privacy, equitable to all industry sectors, compatible with common industry practices, operates at the speed of commerce, credible in domestic and international markets, and compatible among states. Using these parameters, NCBA hopes to establish EID as the industry standard for individual identification by 2026.

Policy

Tennessee Farm Bureau

Beef (Partial)

We support the implementation of a voluntary national animal identification program that would enhance disease traceability efforts and, thus, could serve to minimize potential financial damages to producers. Since all segments of the industry will benefit, we believe that all segments should participate in the costs of starting and maintaining such a program. We further believe we should secure the confidentiality of data collected in this program.

American Farm Bureau

308 / Livestock Identification

1. A national animal identification system that facilitates animal disease traceability should be considered a separate and distinct issue from country-of-origin labeling. We favor the continued use of legally recognized traditional methods of permanent identification of livestock for individual ownership.
2. Any new method of livestock identification should only be considered if it is proven equally practical and effective as current methods and is a legally recognized form of proof of ownership in all states

having livestock brand law. We urge the USDA to conduct a full cost analysis study of a national animal identification system program and to publish the details. No action should be mandatory until Congress has published the cost figures and appropriate funding.

3. We support the establishment and implementation of a market-driven voluntary national animal identification system capable of providing support for animal disease control and eradication, and further enhancing export markets for U.S. livestock products. Individual states and/or tribes should have control of the animal ID program, not a private “for profit” company. We support the opportunity for each state to decide the entity controlling their respective animal ID program database. However, in the event of a disease outbreak, the controlling entities must be equipped to communicate and utilize the system to track and trace animals in a timely manner.
4. A cost-effective national system of livestock identification, with adequate cost share among government, industry and producers should be established and regulated by an advisory board of producers, processors and USDA. Any such program must protect producers from liability for acts of others after livestock leaves the producers’ hands, including nuisance suits naming everyone who handled particular livestock.
 - 4.1. We support USDA implementing a comprehensive educational system for producers on the transition from the National Uniform Ear Tagging System (NUES) to an 840-prefix radio frequency identification (RFID) system for nationwide identification requirements for cattle and bison.
5. We support the following guidelines for a livestock identification program:
 - 5.1. The program must be as simple and inexpensive as possible for producers to implement;
 - 5.2. The cost of enhanced animal identification tagging by the federal government should be subsidized by the federal government since the general public is the primary beneficiary of this initiative;
 - 5.3. Producer information shall be confidential and exempt from disclosure under the Freedom of Information Act (FOIA);
 - 5.4. Information shall be made available only to the proper animal health authorities in the event of an animal disease incident. Any unauthorized use shall constitute a felony.
 - 5.5. All imported animals should be permanently identified regarding their country of origin upon entry into the United States;
 - 5.6. Ensuring the security of producer information and respecting the privacy of producers by only collecting data necessary to establish a trace-back system;
 - 5.7. All current animal disease programs should be incorporated into a national animal disease traceability system. Producers should need only one number for all programs; however, due to the voluntary nature of a national animal identification system, an opt-out method should be available to producers at their request;
 - 5.8. Allowing for an exclusion from any government mandated livestock traceability program for cattle under 18 months of age and those going directly from farm to slaughter;
 - 5.9. The development of uniform standards for electronic identification;
 - 5.10. The development and adoption of livestock identification technology which will enhance the implementation of value-based marketing;
 - 5.11. The hot-iron brand identification method as a legal, federally recognized method of permanent identification/proof of ownership in those states that have livestock brand laws;
 - 5.12. Meeting the reasonable identification requirements of foreign trade partners and overseas customers, ensuring the U.S. reputation as a reliable supplier of meat; and
 - 5.13. Producers being able to apply identification tags themselves and not requiring veterinary application.
6. We oppose the labeling of the U.S. and Canadian cattle herds as one North American herd.

mRNA Vaccines in Livestock

Key Takeaways

- mRNA vaccines use messenger RNA, which occurs naturally in all cells, to teach cells how to make a protein which will trigger an immune response.
- Research into the use of mRNA vaccines in livestock medicine has been ongoing for more than a decade.
- Currently, none of the commonly used vaccines licensed by USDA for cattle utilize mRNA technology. SEQUIVITY, developed by Merck Animal Health in 2018, utilizes mRNA technology and is licensed for use for swine.
- Proposals to ban mRNA vaccines or designate meat from animals treated with mRNA vaccines on labels have been brought forth around the country in recent months.

Questions

1. **How much concern, if any, do you and/or people in your county have about the use of mRNA vaccine technology in livestock?**
2. **As more mRNA vaccines are approved for use by the USDA, how inclined are you to use them for your operation?**
3. **Are you and farmers in your community ready to defend this technology to lawmakers and the public?**

Background

The use of vaccinations to prevent disease is commonplace in animal agriculture. As new technologies emerge and new diseases present threats to animal health and human food security, research into new methods of improving animal health continues to develop. One new technology being thoroughly studied is the use of messenger RNA (mRNA) vaccines in livestock.

mRNA vaccines use messenger RNA, which occurs naturally in all cells, to teach cells how to make a protein which will trigger an immune response. mRNA vaccines differ from commonly known conventional vaccines in a few ways:

- Conventional vaccines use an antigen, or a small piece of weakened or killed virus, to induce an immune response. mRNA vaccines contain genetic material, the messenger RNA, which tells the body how to make a protein. Once the vaccine is injected, the cells in the muscle pick up the mRNA, make the protein, and display it on the cell's surface. The immune system sees the protein and develops an immune response against it.

As new technologies emerge and new diseases present threats to animal health and human food security, research into new methods of improving animal health continues to develop. One new technology being thoroughly studied is the use of messenger RNA (mRNA) vaccines in livestock.

- Viruses used to develop conventional vaccines are grown in cell cultures which, after growing and harvesting, can be lengthy. The process to develop the messenger code used for mRNA vaccines is made from a DNA template in a lab and is much quicker. This provides useful time-saving techniques when looking for vaccines for emerging or mutating diseases needing a rapid response time.
- While conventional vaccines contain additional adjuvants and components to preserve the vaccine, mRNA vaccines do not.

Research into the use of mRNA vaccines in livestock medicine has been ongoing for more than a decade. They require significant review and approval from USDA before being licensed for use in livestock. This licensing process is regulated by the USDA Center for Veterinary Biologics (CVB). Any vaccine licensed to be administered to animals undergoes thorough testing and study of the safety, effectiveness, and quality of the product. In addition, once a vaccine is approved to be on the market, USDA continually collects data regarding the success of the vaccine. Currently, none of the commonly used vaccines licensed by USDA for cattle utilize mRNA technology.

SEQUIVITY, introduced by Merck Animal Health in 2018, utilizes mRNA technology and is licensed for use for swine. SEQUIVITY harnesses RNA particle technology to create customized prescription vaccines against strains of influenza A virus in swine, porcine circovirus (PCV), rotavirus, sapovirus, and others.

Since the development of the Moderna and Pfizer COVID-19 vaccines, both mRNA vaccines, were rapidly developed and approved for human use during the COVID-19 pandemic, public concern about the use of mRNA vaccines in livestock has been heightened. Those who challenge the use of this technology express concern of the presence of remnants of the vaccine being found in the meat of animals administered with it.

Proponents of the continued research and development of mRNA vaccine technology cite the added benefit of another tool to combat impending disease threats such as Foot and Mouth Disease (FMD), African Swine Fever (ASF), Porcine Reproductive and Respiratory Syndrome (PRRS), and Highly Pathogenic Avian Influenza (HPAI), along with others. As is true with vaccines currently licensed for use in livestock, components of the vaccine are broken down by immune cells after being administered, ensuring no trace of the vaccine persists in animal tissues. Also, when mRNA vaccines are approved for use in livestock, withdrawal periods before animals can be slaughtered following the administering of the vaccine would be required, similarly to all other vaccines currently used to treat livestock.

Research into the use of mRNA vaccines in livestock medicine has been ongoing for more than a decade. They require significant review and approval from USDA before being licensed for use in livestock.

In 2023, Tennessee lawmakers brought forth proposals to ban mRNA vaccines or designate meat from animals treated with mRNA vaccines on labels.

In 2023, Tennessee lawmakers brought forth proposals to ban mRNA vaccines or designate meat from animals treated with mRNA vaccines on labels. A couple concerning labeling of mRNA vaccines even made their way to the Tennessee General Assembly this year. One aimed to introduce a statewide label designating “mRNA-free” meat and meat products and would prohibit the state veterinarian’s office from requiring vaccination – authority the position holds but has never used. The other attempted to prohibit the manufacture, sale, delivery, holding, or offering for sale of any food containing a vaccine or vaccine material unless the food is labeled with notification of such vaccine or vaccine material.

Opponents of these efforts, including Farm Bureau, expressed concerns regarding state-by-state labeling of food products due to implications on interstate commerce. They also reasoned “mRNA-free” meat or meat products would be misleading considering mRNA vaccines for livestock are currently only available for swine. After consulting with TFBF and other industry groups, both efforts were taken off notice with the goal to further review this issue during the summer.

Policy

Tennessee Farm Bureau Food Safety (Partial)

Integrity in food labeling is a vital element in maintaining food safety. Food labeling requirements should remain a function of the federal government. We oppose separate state level labeling requirements of foods sold through interstate commerce. We support consumer friendly, science-based labeling of agricultural products providing consumers with useful information concerning the ingredients, nutritional value, and country of origin. Agricultural products produced using approved biotechnology such as GMO, GE, etc. should not be required to designate individual inputs or specific technologies on the product label. We oppose misleading labeling statements such as “bST Free Milk” implying food produced using certain production practices is superior and safer than food using other approved production practices.

Agricultural Public Relations (Partial)

Farmers and their organizations must explain to the public the positive effects of farm science and technology. Everyone gains from good public agricultural policy.

Biotechnology (Partial)

Advancements in biotechnology are having tremendous positive impacts on agriculture. These developments are beneficial to all sectors of our society, not just agriculture. Therefore, Farm Bureau should strive to inform the public on the beneficial effects implementation of these new production practices will have on the environment and well-being of the community.

We urge state and national political leaders to develop a positive national strategy for biotechnology research and development. Part of this strategy should include an open and frank dialogue with all interested parties. Only the continued support and encouragement of technological advancements will assure our viability in world markets. We encourage the USDA to take a lead in coordinating efforts to evaluate and move approved products and technologies to the marketplace quickly. The approval of new products should be based on safety and efficacy criteria, and not on socioeconomic criteria.

American Farm Bureau

302 / Animal Health Emergency Management Preparedness (Partial)

3. We recommend that the USDA continue to work to develop an accurate rapid testing program for Johne's disease. Additional research is needed for developing diagnostics and vaccines, understanding the biology of organisms and determining why diseases emerge. We and the international community must give priority to other emerging infectious diseases such as African Swine Fever, foot-and-mouth disease (FMD), Exotic Newcastle Disease, West Nile Virus, vesicular stomatitis, bovine spongiform encephalopathy (BSE), classic swine fever, porcine epidemic diarrhea virus, pseudorabies, tuberculosis, salmonella, E. coli, scrapies, avian influenza and contagious equine metritis.

5. We support:

5.7. Changing the focus of USDA's FMD emergency response plan from eradicating infected animals to implementing a widely available vaccination control program;

5.9. The development and production of foot-and-mouth disease vaccine on U.S. soil and/or by a U.S.-controlled company;

5.14. USDA planning for a critical supply of animal use vaccines, antibiotics, antiparasitics, and other essential animal health products to be produced domestically;

337 / Biotechnology (Partial)

2. We urge state and federal political leaders to develop a positive national strategy for biotechnology research, development and consumer education. Part of this strategy should include an open and frank dialogue with all interested parties. We believe that our competitive advantage in world markets will be maintained only by the continued support and encouragement of technological advancements.

3. The approval of new products should be based on safety and efficacy criteria. Consideration of socioeconomic criteria should not be required.

7. We support:

7.1. Increased efforts through biotechnology and animal stem cell research to more rapidly develop traits with recognized consumer benefits, to increase the marketability of our products, to solve environmental concerns, to increase net farm income by decreasing input costs and to improve product quality and quantity to feed our ever-growing population.

8. We oppose:

8.3. Individual states establishing separate policies on agricultural biotechnology labeling, identification, use and availability;

8.5. The imposition by foreign countries of any import restrictions, labeling or segregation requirements of any agricultural product enhanced through biotechnology, once such commodity has been certified by the scientific community as safe and not significantly different from other varieties of that commodity.

mRNA Vaccines as Edible Vaccines

Key Takeaways

- There is currently ongoing research to produce edible vaccines with mRNA technology.
- Vaccines are administered under a healthcare provider's supervision.
- The Food and Drug Administration has a seven-step process for vaccine development, however, there is no clarity on the regulatory framework for edible vaccines.
- TFBF has policy against state level food labeling and believes it should remain as a function of the federal government.

Questions

1. **How should edible vaccines be evaluated: regulated like a food, a vaccine, or another combination product of its own?**
2. **Do you support ongoing research for edible vaccines?**
3. **Is the regulation, including labeling requirements, a function of the state or federal government?**

Background

Many people in rural communities or developing countries cannot access vaccines due to various issues such as cost and needed skills to administer. This problem led to research of vaccines in plants, allowing vaccines to be stored without refrigeration and transported easier. In 2021, researchers from the University of California, Riverside (UC Riverside) received a grant to experiment with messenger RNA (mRNA) technology, an ingredient mainly known for its use in vaccines to treat COVID-19. They are researching methods to receive the vaccine through consuming lettuce rather than a prescription or an injection. The group has three main goals:

- Discover DNA with the mRNA vaccine present in plant cells for replication.
- Illustrate the plant can produce the amount of mRNA similar to a traditional shot.
- Find the right dosage for the public.

Although UC Riverside's project is still in the early research stage, this idea has sparked questions about the creation and approval processes of plants with vaccines in addition to concerns about the impact this method could have on the state's food supply.

With every experiment and decision comes challenges and limitations in consistency and methodology. Researchers are still working on plants having equal dosage, the appropriate amount of dosage, and serving sizes based on varying needs of children and adults. Cross-contamination from farm-to-farm is an additional concern because strict greenhouse production could be expensive. Receiving vaccines orally also has the potential to damage protein components in stomachs for

Although UC Riverside's project is still in the early research stage, this idea has sparked questions about the creation and approval processes of plants with vaccines and what the impact on the state's food supply would be with this new method.

digestion. All hosting plants need to be eaten raw to fully receive the genes grown in the food, but spoilage of bananas, for example, happens quickly.

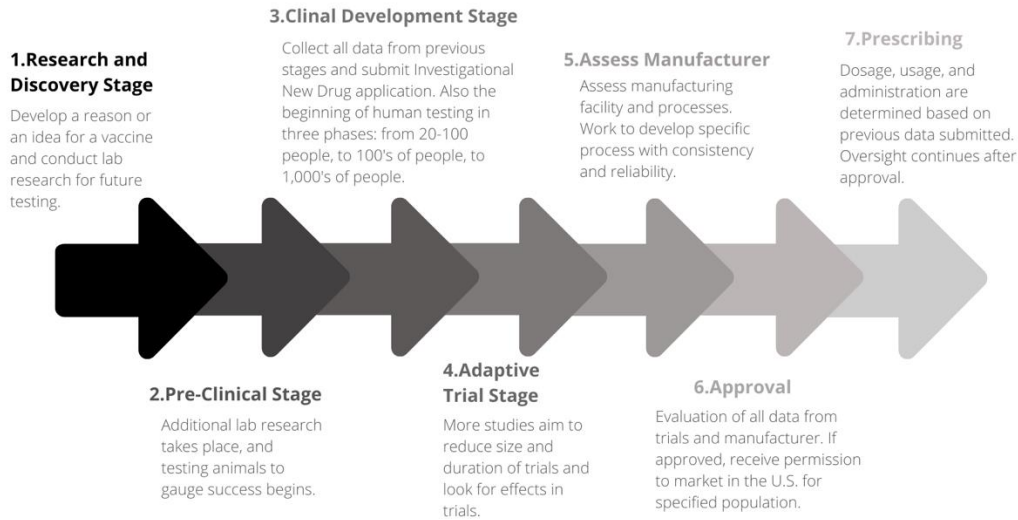
After creation in 1906 with the Pure Food and Drugs Act, the Food and Drug Administration (FDA) was created in response to the unhygienic conditions in food production. The FDA defines their responsibilities as regulators of, “all foods and ingredients introduced into or offered for sale in interstate commerce except for meat, poultry, and some egg and catfish (which are regulated by USDA).” They also regulate “all drugs, biological products, medical devices, animal drugs and feed, cosmetics, and...products that emit radiation,” making sure products do not cause harm. Originally, the FDA had three divisions: foods, drugs, and cosmetics. In 1938, the Federal Food, Drug, and Cosmetic Act (FFDCA) passed, creating requirements for companies to submit products to an evaluation before entering the market, and the FDA oversees and performs the evaluations. The FDA now has authority to cover more than the original three, including medical devices, dietary supplements, pesticide residues, food additives, and color additives. As technology develops, more products continue to surface, leading to combination products such as edible vaccines.

The first report of edible vaccines surfaced in 1990 within tobacco, expressing a Streptococcus surface protein in 0.02% of the total soluble leaf proteins. Later in the same year, a Hepatitis B surface antigen was expressed in a tobacco plant. This discovery allowed scientists to confirm vaccines could be an outcome of plant growth. These innovations led to an amendment to the FFDCA in 1990, addressing the classification of combinations of drugs, devices, or biological products, but combination products within the food and cosmetics are excluded from the domain of the FDA. Researchers are now conducting trials with corn for a Hepatitis B vaccine, monkey form of HIV vaccine, and a Newcastle Disease Virus vaccine for chickens. Foods like potatoes, tomatoes, and bananas are experiencing more testing with hope for the future, but since foods are not included in the 1990 amendment, the products are the responsibility of the primary group. If there are separate functions with no priority of actions, the product is assigned to the group with the most expertise in the matter. In the case of edible vaccines, is achieving two separate actions of providing nutrition as a food and assisting the immune system to fight a virus. How should they be evaluated: regulated like a food, a vaccine, a take-home drug, or another combination product of its own?

Before any vaccine is available to the public for consumption, the FDA requires all vaccines be thoroughly developed and tested. The FDA outlines a seven-step process to become a vaccine. The stages include multiple levels of research before any testing, and once clinical trials begin, a constant level of research is present as the idea transitions.

Inspections and regulations of food are quite different from vaccines and drugs. The FDA can work toward the prevention of foodborne illnesses through the Food Safety Modernization Act (FSMA),

FDA's Process for Vaccine Development



Before any vaccine is available to the public for consumption, the FDA requires all vaccines be thoroughly developed and tested. The FDA outlines a seven-step process to become a vaccine. The stages include multiple levels of research before any testing, and once clinical trials begin, a constant level of research is present as the idea transitions. There is no predetermined timeline for vaccine development, but, for reference, the chicken pox and polio vaccines were approved for the public after several decades of research. The approval stage alone has a target time of sixteen months, but certain ideas could take longer than the target time. For vaccines to be commercially produced, the product would pass all seven stages of the development process.

Vaccines are administered under the supervision of a healthcare provider. To be considered a nonprescription drug, the FDA states the drug:

- can be used appropriately by consumers for self-diagnosed conditions,
- does not need a health practitioner for safe and effective use, and
- has a low potential for misuse and abuse.

There are two pathways for nonprescription drugs: over the counter (OTC) monograph or the drug approval process. The OTC monograph contains regulations which create specifications for 36 different therapeutic groups, including details about ingredients, doses, and labeling. The drugs are not individually required to be reviewed and approved because the drug conforms to the OTC monograph. If a drug does not meet the OTC standards, it must go through the new drug application (NDA). This process includes an assessment of consumers' abilities to use the drug without injury or harm.

Inspections and regulations of food are quite different from vaccines and drugs. The FDA can work toward the prevention of foodborne illnesses through the Food Safety Modernization Act (FSMA). Within FSMA, there are nine rules the FDA implements to prevent contamination rather than responding to it; some of the rules cover water, traceability, produce safety, sanitary transportation, and

several more points of contact. If a food is thought to have caused a foodborne outbreak, a product investigation begins, tracing back the origin and investigating facilities, samples, preparation reviews, and farms.

In 2023, Tennessee lawmakers brought forth legislation to create a new food label requirement for edible vaccines. Their proposal attempted to prohibit the manufacture, sale, delivery, holding, or offering for sale of any food containing a vaccine or vaccine material unless the food is labeled with notification of such vaccine or vaccine material. Opponents of these efforts, including Farm Bureau, expressed concerns regarding state-by-state labeling of food products due to implications on interstate commerce. After consulting with TFBF and other industry groups, this effort was taken off notice with the goal to further review this issue during the summer.

Policy

Tennessee Farm Bureau Food Safety (Partial)

Food labeling requirements should remain a function of the federal government. We oppose separate state level labeling requirements of foods sold through interstate commerce. We support consumer friendly, science-based labeling of agricultural products providing consumers with useful information concerning the ingredients, nutritional value and country of origin. Labels should not be required to contain information on production practices not affecting nutrition or safety of the product. Agricultural products should not be required to designate individual inputs or specific technologies on the product label. We oppose misleading labeling statements... implying food produced using certain production practices is superior and safer than food using other approved production practices. Foods manufactured to imitate conventional standards and have separate label requirements that signify the difference of the imitation food.

Health (Partial)

We encourage vaccination programs for potentially deadly diseases and more domestic production of critical health vaccines as a policy of national security.

Agriculture Public Relations (Partial)

Farmers and their organizations must explain to the public the positive effects of farm science and technology. Everyone gains from good public agricultural policy.

Biotechnology (Partial)

Advancements in biotechnology are having tremendous positive impacts on agriculture. These developments are beneficial to all sectors of our society, not just agriculture. Therefore, Farm Bureau should strive to inform the public on the beneficial effects implementation of these new production practices will have on the environment and well-being of the community.

We urge the state and national political leaders to develop a positive national strategy for biotechnology research and development. Part of this strategy could include an open and frank dialogue with all interested parties. Only the continued support and encouragement of technological advancements will

assure our viability in world markets. We encourage the USDA to take a lead in coordinating efforts to evaluate and more approved products and technologies to the marketplace quickly. The approval of new products should be based on safety and efficacy criteria, and not on socioeconomic criteria.

337 / Biotechnology (Partial)

2. We urge state and federal political leaders to develop a positive national strategy for biotechnology research, development and consumer education. Part of this strategy should include an open and frank dialogue with all interested parties. We believe that our competitive advantage in world markets will be maintained only by the continued support and encouragement of technological advancements.

3. The approval of new products should be based on safety and efficacy criteria. Consideration of socioeconomic criteria should not be required.

7. We support:

7.1. Increased efforts through biotechnology and animal stem cell research to more rapidly develop traits with recognized consumer benefits, to increase the marketability of our products, to solve environmental concerns, to increase net farm income by decreasing input costs and to improve product quality and quantity to feed our ever-growing population.

8. We oppose:

8.3. Individual states establishing separate policies on agricultural biotechnology labeling, identification, use and availability;

8.5. The imposition by foreign countries of any import restrictions, labeling or segregation requirements of any agricultural product enhanced through biotechnology, once such commodity has been certified by the scientific community as safe and not significantly different from other varieties of that commodity.

mRNA Fact Sheet from NIAA¹

The Safety of mRNA in Animal Agriculture

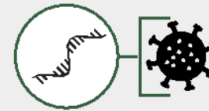
What is mRNA?

Much like DNA, mRNA (messenger ribonucleic acid) occurs naturally in all living organisms. mRNA is able to quickly break down in all forms of life, including digestion of food.

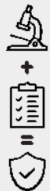


How does it work?

Messenger ribonucleic acid (mRNA) technology and its application to human and animal health has been researched since 1961. In 2020, the mRNA platform was used to develop some COVID-19 vaccines. mRNA vaccines can be constructed quickly using only the pathogen's genetic code. The mRNA vaccines teach animal cells how to make a protein — or even just a piece of a protein—that triggers an immune response inside the body. This immune response, which produces antibodies, helps protect against disease.



Is it safe?



USDA's Animal Plant Health Inspection Service (APHIS) in its Center for Veterinary Biologics (CVB) regulates veterinary medicine to ensure the therapeutics available for diagnosis, prevention, and treatment of animal diseases are pure, safe, potent, and effective. CVB's evaluation includes safety of food derived from livestock that have received a vaccine.

Why do we need access to vaccines and new vaccine technology?

Vaccines for livestock protect against diseases and ensure animal safety and food security. Limiting mRNA vaccine technology would mean losing a new tool to protect animals from emerging diseases.

Are Livestock Vaccinated for COVID-19?

There are no COVID-19 vaccinations for traditional food animals (beef/dairy cattle, pigs, goats, sheep, chickens). The one veterinary COVID-19 vaccine licensed in the U.S. is used for mink.



Does mRNA vaccine technology change my genes?

The mRNA vaccines cannot intermingle or change the genetic material of the person or animal receiving the vaccine.

Can I become vaccinated through the meat, milk, or eggs I eat?

No. The USDA requires withdrawal times for all vaccinations administered to livestock. This ensures meat, milk, and eggs are safe for human



consumption. Scientists agree that mRNA vaccines cannot be passed to humans through food. The use of recommended cooking temperatures and the digestion in the human gut destroy mRNA.



Reach out for more information! We have worked with other industry associations to create this resource. For the full mRNA brief regarding use in animal agriculture, please contact J.J. Jones at jj.jones@animalagriculture.org.

July 2023

¹ This information was provided by the National Institute of Animal Agriculture (NIAA).

Artificial Intelligence Technology

Note: This section is meant to be read comprehensively in the order which the papers appear.

Section Key Takeaways

- Artificial intelligence, inspired by the human brain, demonstrates abilities such as image and speech recognition in addition to language processing.
- AI algorithms help farmers optimize their resources through the collection of data within water usage, soil quality, and weather conditions.
- According to Pew Research Center, 42% of these experts say they are equally excited and concerned about the changes in the 'humans-plus-tech' evolution they expect to see by 2035.
- Artificial intelligence is present in today's cars and phones, whether it is a GPS directing to an address or a search platform suggesting places to eat near the current location.
- Within the agricultural sector, Farm Business Network launched "Norm," an AI Ag Advisor, to assist with application of pesticides or prescriptions, prime planting times for specific cities, research of new chemicals, and more.

Section Questions

1. Is there an understanding in your community of the artificial intelligence (AI) revolution?
2. Has your farm utilized AI?
3. Should there be a limit on the reach of technology?
4. What type of position should Farm Bureau have on artificial intelligence?

The Evolution of AI Technology: Unleashing the Power of Intelligent Machines

Background

Artificial Intelligence (AI) has emerged as one of the most transformative and rapidly advancing technologies in human history. The journey of AI began in the 1950s, and since then, it has evolved significantly, revolutionizing various sectors and influencing our daily lives. This essay traces the fascinating history of AI technology, highlighting key milestones and breakthroughs.

The seeds of AI were sown in the 1950s when researchers began exploring the possibility of creating machines capable of simulating human intelligence. Pioneers such as Alan Turing and John McCarthy laid the groundwork for AI by proposing theoretical models and developing early computer programming languages. In 1956, McCarthy organized the Dartmouth Conference, which is widely considered the birth of AI as a discipline. This event spurred enthusiasm and led to the first significant AI advancements in the following years.

Despite initial excitement, AI research faced significant challenges in the 1970s and 1980s, leading to what is known as the "AI winter." Early AI systems were limited in their capabilities and fell short of the ambitious expectations set forth by researchers. Funding dwindled, and enthusiasm waned. However, this period also forced researchers to reevaluate their approaches and lay the foundation for future breakthroughs.

The late 1980s and 1990s witnessed a resurgence in AI research with the development of expert systems and machine learning algorithms. Expert systems, which utilized knowledge from human experts to solve specific problems, found success in various domains such as medicine and finance. Meanwhile, machine learning techniques, including neural networks, began to flourish, enabling computers to learn from data and improve their performance over time. The 21st century brought a revolution in AI technology fueled by the explosion of big data and the development of powerful computing systems. With massive datasets available, machine learning techniques, particularly deep learning, gained prominence. Deep learning models, inspired by the structure of the human brain, demonstrated remarkable abilities in image and speech recognition, natural language processing, and other complex tasks.

AI technology has rapidly infiltrated numerous aspects of our daily lives. Virtual assistants like Siri and Alexa have become household names, while AI-powered algorithms shape our social media feeds and recommend personalized content. AI has also made significant strides in healthcare, finance, transportation, and cybersecurity. However, the increasing reliance on AI raises ethical concerns related to privacy, bias, and job displacement, requiring careful consideration and regulation. The history of AI technology is a story of persistence, innovation, and paradigm shifts. From its humble beginnings to the current era of sophisticated AI systems, the field has witnessed remarkable progress. As AI continues to evolve, it holds the potential to reshape industries, drive scientific discoveries, and ultimately redefine the future of humanity.²

² It is not recommended to cite this paper because this information was not written by Tennessee Farm Bureau.

Transforming Agriculture: The Impact of AI on the Future of Farming

Background

Artificial Intelligence (AI) is revolutionizing numerous industries, and agriculture is no exception. With the world's population growing and environmental challenges intensifying, the agricultural sector faces the urgent need for innovative solutions. AI technology offers tremendous potential to optimize farming practices, enhance productivity, improve sustainability, and address the global food security challenge. This essay explores the significant impact that AI will have on agriculture.

AI-powered precision farming techniques enable farmers to make data-driven decisions and optimize crop management. Advanced sensors, drones, and satellite imagery collect real-time information on soil moisture, nutrient levels, and crop health. AI algorithms analyze this data, providing actionable insights to farmers. By precisely targeting irrigation, fertilization, and pest control, farmers can minimize resource waste, reduce environmental impact, and maximize yields. Machine learning algorithms can also predict crop diseases, allowing farmers to take preventive measures and reduce losses.

AI technologies are automating various labor-intensive farming operations, significantly increasing efficiency. Robots equipped with AI vision systems and machine learning capabilities can perform tasks such as planting, weeding, and harvesting with precision and speed. This automation reduces reliance on human labor, particularly in areas facing labor shortages. It also minimizes errors, increases productivity, and enables farms to operate around the clock.

AI-driven systems play a vital role in monitoring and managing livestock. IoT sensors and wearable devices collect real-time data on animal behavior, health, and feeding patterns. AI algorithms analyze this information, identifying early signs of diseases, optimizing feed formulations, and improving animal welfare. Intelligent systems can also detect anomalies, such as heat stress or abnormal behavior, alerting farmers to take immediate action. By leveraging AI, farmers can make informed decisions, ensure the well-being of their livestock, and enhance overall productivity.

AI enables farmers to harness the power of big data and make more informed decisions. By aggregating and analyzing vast amounts of historical and real-time data, AI algorithms provide actionable insights on market trends, weather patterns, and crop performance. This information empowers farmers to optimize planting schedules, adjust cultivation practices, and make strategic choices in supply chain management. Data-driven decision-making enables increased efficiency, reduced costs, improved risk management, and enhanced profitability for farmers.

AI technology plays a critical role in promoting sustainable agriculture practices. By monitoring soil quality, weather conditions, and water usage, AI algorithms help farmers optimize resource management. They enable efficient water usage through intelligent irrigation systems, reduce chemical inputs through targeted pest control, and minimize fertilizer runoff by tailoring application rates. AI-powered systems also facilitate sustainable land use planning, identifying optimal areas for cultivation and preserving biodiversity. By promoting eco-friendly practices, AI contributes to environmental conservation, mitigates climate change impact, and ensures long-term agricultural sustainability.

The impact of AI on agriculture is transformative, promising to address the pressing challenges faced by the sector. From precision farming and automated operations to data-driven decision-making and sustainable practices, AI revolutionizes every aspect of farming. By harnessing the power of AI, the agricultural industry can enhance productivity, ensure food security, and create a more sustainable and resilient future.³

³ It is not recommended to cite this paper because this information was not written by Tennessee Farm Bureau.

Artificial Intelligence

Background

What did you think of the prior two papers? Did you learn something about the history of artificial intelligence? Did you agree with the impacts artificial intelligence has on agriculture? The answers to these questions are important because the previous two papers of this report were written by artificial intelligence itself. Using the website ChatGPT from the company OpenAI, a prompt was given to the chat, similar to how you use a search engine like Google, and the essays were then generated in a matter of minutes. For the first essay, the prompt requested, “a 500-word essay on the history of AI Technology,” and the essay was generated in 2 minutes and 42 seconds. The second prompt asked for “a 500-word essay on the impact AI will have on agriculture.” It was written in just 25 seconds.

As artificial intelligence continues to advance, decisions must be made concerning the reach and limitations it will have in society. According to the Pew Research Center, “42% of these experts said they are equally excited and concerned about the changes in the ‘humans-plus-tech’ evolution they expect to see by 2035.” With 24/7 availability, reduction in human error, and endless connections to others across oceans, AI continues to be a key resource in citizen’s daily lives. However, privacy concerns and impacts to labor are two threats to the human population based on the rate of development technology is experiencing.

AI technology can provide resources for convenience, but there can also be issues with privacy. Due to the advancements in technology, the internet is always available. A resource with a wide range of knowledge is convenient and obtainable with internet access during all hours of the day. Artificial intelligence is present in today’s cars and phones, whether it is a GPS directing to an address or a search platform suggesting places to eat near the current location. Tools like surveillance and facial recognition help law officers identify criminals in their areas even when officers are off duty. Although this technology has several ways to contribute to convenience and efficiency, allowing devices to use locations and approve certain privacy settings can release personal information to become part of a large data set and assist in larger projects. Cameras and facial recognition are not limited on public property and have no guarantee of accuracy. Artificial intelligence contains several qualities to assist in daily lives, but there are potential consequences people experience for convenience.

Technology makes accurate decisions with speed and without bias. The world has become familiar with the benefits of efficient machines operating in manufacturing and harvesting. Tasks with specific, well-defined processes have become more efficient due to the work of technology. With the efficiency in production, people continue to lose jobs. According to the U.S. Bureau of Labor Statistics, “31% lost their job because their position or shift was abolished, and 31% were displaced due to insufficient work,” between January 2019 and December 2022. The 62% is not specifically due to technology taking the place of a person, but it is a significant factor in the change of the U.S. workforce. People are still needed for labor purposes in industries like agriculture, but technology continues to make its impact on the efficiency of planting and harvesting. Human brains are more energy efficient and better at achieving tasks which need creativity or common sense, but every person has beliefs and experiences which impact their decision-making skills. Artificial technology is trained to decide without any influences. There are still many unknowns on how both the human

brain and artificial technology process information, but one piece of information people know is the industry of artificial intelligence is not going away.

Artificial intelligence is proven to be effective and efficient in the world. Companies are experimenting with new programs to provide more information to people like ChatGPT. Within the agricultural sector, Farm Business Network launched “Norm,” an AI Ag Advisor, to assist with application of pesticides or prescriptions, prime planting times for specific cities, research of new chemicals, and more. These programs can change operations all over the world for the better, but should there be a limit on the reach of this technology?

Policy

Tennessee Farm Bureau

Labor-Management Relations (Partial)

We oppose work slowdowns and other impediments to the use of labor-saving technology.

Agriculture Public Relations (Partial)

Farmers and their organizations must explain to the public the positive effects of farm science and technology. Everyone gains from good public agricultural policy.

Biotechnology (Partial)

Advancements in biotechnology are having tremendous positive impacts on agriculture. These developments are beneficial to all sectors of our society, not just agriculture. Therefore, Farm Bureau should strive to inform the public on the beneficial effects implementation of these new production practices will have on the environment and well-being of the community.

We urge the state and national political leaders to develop a positive national strategy for biotechnology research and development. Part of this strategy could include an open and frank dialogue with all interested parties. Only the continued support and encouragement of technological advancements will assure our viability in world markets. We encourage the USDA to take a lead in coordinating efforts to evaluate and more approved products and technologies to the marketplace quickly. The approval of new products should be based on safety and efficacy criteria, and not on socioeconomic criteria.

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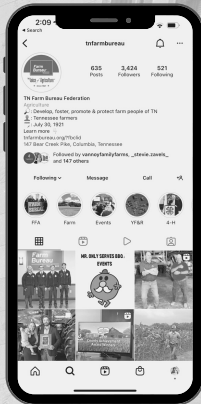
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