

## ***A National Call to Action: Invest in Food and Agriculture for America's Future***

### **The Problem**

Today, the U.S. food system faces many serious threats, from water and labor shortages to extreme weather and shrinking rural communities. While America has past relied on innovation to overcome challenges like these, public funding to advance food and agriculture has dropped by one-third<sup>1</sup> since the early 2000s, even as our competitors continue to invest more.

The result? U.S. agricultural productivity growth is slowing<sup>2</sup> at a time when the stakes could not be higher. Our current funding for R&D will not keep up with the demands of a growing population<sup>3</sup>. Healthcare costs from diet-related diseases are already rising. At the same time, farmers and ranchers are being squeezed by volatile and expensive input costs. If we don't act now, our food supply, health, and economy are on the line.

### **The Call to Action**

It is not too late to change course. With renewed, expanded investment in food and agriculture, we envision a future where:

- Americans can consistently access safe, affordable, and nutritious food and live longer, healthier lives.
- Communities across the nation—rural and urban alike—can thrive through expanded economic opportunities.
- U.S. farmers and ranchers no longer question whether they can profit enough to sustain their livelihoods.
- A skilled workforce is ready for a wide range of in-demand careers across the food and agriculture industries.
- Young people are empowered with the real-world skills they need to succeed in life.

Together, we can ensure that America not only keeps pace but leads the world in developing more resilient crops and livestock, protecting the water supply, improving soil health, building strong local and regional food systems, supporting community health and well-being, and strengthening tomorrow's workforce. We can bolster the more than 24 million jobs<sup>4</sup> supported by the food and agriculture sector. We can invest in our food security, and with it, our national security.

### **The Opportunity**

Land-grant universities, located in every U.S. state and territory, are uniquely prepared to make this future a reality by turning groundbreaking discoveries into real-world solutions. The land-grant system has a proven track record of collaborative research, academic training, Cooperative Extension, and youth

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<sup>1</sup> Investment in U.S. Public Agricultural Research and Development has Fallen by a Third Over Past Two Decades, Lags Major Trade Competitors. <https://www.ers.usda.gov/amber-waves/2022/june/investment-in-u-s-public-agricultural-research-and-development-has-fallen-by-a-third-over-past-two-decades-lags-major-trade-competitors>. USDA Economic Research Service.

<sup>2</sup> 2025 Global Agricultural Productivity Report. <https://vtechworks.lib.vt.edu/server/api/core/bitstreams/a459e229-ecf0-44f2-b5ce-3459f72a561a/content>

<sup>3</sup> Alston, J.M. et al. (2010) Persistence Pays: U.S. Agricultural Productivity Growth and the Benefits from Public R&D Spending.

<sup>4</sup> 2025 Food and Agriculture Industries Economic Impact Study. <https://goodstone.guerrillaeconomics.net/reports/11cda7e5-59ae-4310-a9b3-fcd931281052>

development through 4-H. This work provides a strong ROI: every \$1 invested in public agricultural research returns about \$20 to the economy<sup>5</sup>.

With bold public investment in the land-grant university system and its partners, the U.S. can build a strong food system and a healthy, resilient future for our families, agricultural producers, and communities.

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<sup>5</sup> Investment in U.S. Public Agricultural Research and Development has Fallen by a Third Over Past Two Decades, Lags Major Trade Competitors. <https://www.ers.usda.gov/amber-waves/2022/june/investment-in-u-s-public-agricultural-research-and-development-has-fallen-by-a-third-over-past-two-decades-lags-major-trade-competitors>. USDA Economic Research Service.

## Improving America's Nutrition and Health

Our nation is facing a public health crisis. Before 2014, life expectancy in the United States trended steadily upward. Now, the United States ranks 48th in life expectancy despite spending almost \$5 trillion yearly on health care. Ensuring the physical and mental health of the population is essential for the future of the country and our national security.

The nation's land-grant universities are uniquely positioned to improve America's nutrition and health through agricultural research, education, and Extension. Their work will lead to reduced healthcare costs in America by promoting healthy behaviors that reduce diet-related diseases, including physical activity, eating healthy foods, and strengthening social connections, while expanding access to health screenings and preventative medicine.

### Priorities:

- Improve access and consumption of healthy foods
- Reduce diet-related diseases
- Increase use of health screenings and preventative medicine
- Increase physical activity
- Reduce healthcare costs

### What's at stake:

Inaction will contribute to **declining life expectancy, growing healthcare costs, increased absenteeism, elevated disease prevalence, slowed economic growth, and a weakened national defense.**

**Increased investment in agricultural research, education, and Extension will improve the lives of all Americans by:**

- **Expanding access to healthy, local food**
  - Problem: Failure to ensure access to safe, affordable, nutritious foods is a major threat to the future success of our nation's economy and public health.
  - Land-grant Solution: Support strong local food economies through technical assistance and fostering connections between farmers and markets.
  - Benefit: Stronger local supply chains that increase food security and improve access to foods that support better health.
- **Preventing diet-related disease**
  - Problem: Poor diets contribute to rising rates of chronic diseases such as heart disease, type 2 diabetes, and obesity.
  - Land-grant Solution: Advance precision and lifespan nutrition research to reduce diet-related disease, improve metrics, and assess how community incentives and dietary changes can prevent or delay disease onset.
  - Benefit: Reducing diet-related chronic disease will result in a healthier population, a more productive workforce, and a stronger overall economy. A healthier diet could save [\\$50 billion](#) in healthcare costs.
- **Increasing physical activity**
  - Problem: As of 2020, only [one-quarter](#) of adults aged 18 and over got enough exercise.
  - Land-grant Solution: Help people be more active through environmental, community, and technology-based interventions—including Extension programs, trails, fitness tools, and AI-driven analytics.
  - Benefit: Increased physical activity would yield major economic benefits; physical inactivity currently costs the U.S. [\\$192 billion](#) in healthcare expenses.

- **Supporting mental health**
  - Problem: Approximately [one in five](#) adults living in rural areas experience mental illness, and suicide rates [nearly doubled](#) during the past two decades, but rural communities often do not have access to mental health resources.
  - Land-grant Solution: Educate community members to spot early signs of stress, depression, mental illness, and suicide risk. Assess the impact of exercise on mental health, comparing it to anti-depressant and anti-anxiety medications, and explore dose-reduction benefits.
  - Benefit: Addressing mental health crises will save lives and strengthen families and communities.
- **Increasing access to preventative medicine**
  - Problem: Only [8% of Americans](#) undergo routine preventative screenings that are essential for early detection and chronic disease management, with rural Americans less likely to receive preventative healthcare.
  - Land-grant Solution: Increase the use of screenings, preventative medicine, and ongoing health monitoring and expand Extension's immunization education efforts to reduce the prevalence or severity of diseases. Evaluate the role of health communication science in counteracting misinformation. Investigate the relationship between stress, immune health, and how exercise may improve vaccine responses.
  - Benefit: Increasing investments in Extension's immunization education efforts to \$10 million annually would generate a 20:1 annual savings in future healthcare costs alone.
- **Protecting the health and safety of farmers and agricultural workers**
  - Problem: Agriculture is one of the most dangerous professions. Farmers and agricultural workers have unique health challenges including mental health concerns, zoonotic disease transmission, pesticide exposure, and workplace safety risks.
  - Land-grant Solution: Provide health and safety education to those most at risk, including older farmers and migrant farm workers. Study the impact of systemic stressors in the agricultural industry, including financial instability, isolation, and weather unpredictability, on health outcomes. Develop community-based collective action focused on improving basic health and safety needs.
  - Benefit: Protecting the health and safety of U.S. agricultural workers will prevent significant economic losses for workers, farms, and society. Work-related injuries in agriculture cost an estimated [\\$11.31 billion](#) per year.

**Strategic investment in agricultural research, education, and Extension will strengthen America's health by improving access to nutritious food, preventing disease, expanding physical and mental wellbeing, and reducing the soaring healthcare costs that threaten families, communities, and national security.**

## Promoting Positive Youth Development

Young people today face unprecedented social, educational, and economic challenges. Rising loneliness, declining academic performance, and uncertainty about the future threaten to leave an entire generation unprepared for tomorrow's workforce.

Land-grant universities—through 4-H and the Cooperative Extension System—are uniquely positioned to lead the way in building a ready generation that is resilient, skilled, and community-minded. Without expanded investment in these areas, millions of youth will miss out on opportunities to develop the skills, confidence, and community support they need to thrive in an ever-changing world.

### 4-H is [building a ready generation](#) that is:

- 2x more likely to live life with purpose
- 2x more likely to be a leader
- 4x more likely to give back to the community
- 4x more likely to feel competent

### What's at stake:

- **Youth well-being:** 53% of Gen Z reports feeling lonely, and 52% feel they are failing at life's goals.
- **Educational setbacks:** Chronic school absenteeism has doubled since 2019, and teens' math and reading scores have dropped to 50-year lows.
- **Workforce gaps:** 85% of jobs that will exist in 2030 haven't been invented yet, yet employers say graduates lack real-world skills such as adaptability and creative thinking.
- **Community vitality:** Without strong youth engagement, rural and urban communities alike risk losing the next generation of leaders, innovators, and entrepreneurs.

### Increased investment in agricultural research, education, and Extension can improve the lives of all Americans by:

- **Preparing youth for success in the future workforce**
  - **Problem:** Over [104,00 job openings](#) in the food, agriculture, renewable natural resources, and environmental sectors are expected annually between 2025 – 2030 for individuals with college degrees. But the next generation is entering a rapidly changing economy without the necessary life and leadership skills.
  - **Land-grant Solution:** Expand 4-H programs that teach real-world problem-solving, communication, and teamwork while connecting youth to careers in food, agriculture, and natural resources.
  - **Benefit:** Build a pipeline of skilled, purpose-driven young professionals ready to strengthen America's economy and food systems.
- **Promoting youth engagement with their communities**
  - **Problem:** Youth isolation and civic disconnect threaten youth mental health and community succession planning.
  - **Land-grant Solution:** Create safe virtual and physical spaces where youth can belong, develop confidence, and contribute to their communities.
  - **Benefit:** Empathetic, civically engaged young leaders contributing to community success.

- **Cultivating a thriving next generation**

- Problem: Many youth—particularly in underserved rural and urban areas—lack access to consistent mentoring and hands-on learning opportunities.
- Land-grant Solution: Scale 4-H outreach through partnerships with schools, employers, and local organizations to reach 10 million youth annually by 2030.
- Benefit: Ensure every young person can discover their spark, find purpose, and thrive.

**Every \$1 invested in a 4-H'er results in a \$40 return in economic benefit to youth, their families, and communities<sup>6</sup>. Expanded investment in 4-H and Cooperative Extension will enable these programs to prepare 10 million ready, young people who are healthy, productive, and engaged.**

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<sup>6</sup> Finster, M. et al. (2023) Exploratory Cost-Benefit Study of 4-H.

## Promoting Economic Development for Thriving Communities

The nation's rural areas need community and economic development assistance to reduce population decline and the loss of both farmers and farmland. Rural areas are increasingly vulnerable to natural disasters, including drought, flooding, and wildfires. Furthermore, both rural and urban communities will face continued instability and the risk of reduced capacity to respond to new pandemics, vector-borne diseases, and a changing environment.

The land-grant universities advance community economic development through research, education, and Extension. However, critical Cooperative Extension System programs remain underfunded and dramatically understaffed across the country. We must increase the investment in community and economic development programming.

### Priorities:

- Foster economic growth.
- Improve quality of life.
- Preserve farmland.
- Increase rural vitality.
- Improve access to essential services.
- Reduce natural disaster impacts.
- Create more livable communities.

### What's at stake:

- Rural America will continue to **lose population, farmers, businesses, and workers**, as well as **farmland**.
- The nation's long-term supply of **food, clothing, and shelter** will be threatened.
- Tacit **knowledge about food production** will be reduced.

### Increased investment in agricultural research, education, and Extension can improve the lives of all Americans by:

- **Keeping Farmers On The Farm**
  - Current Problem: Both the number of farms and the total acreage of farmland continues to decline. As of 2024, there are [1.88 million](#) farms in the U.S., down 8% since the previous Census of Agriculture.
  - Land-grant Solutions: Use economic data to identify land use trends and provide science-based technical assistance to support farm success.
  - Benefit: Potentially prevent the loss of farmers and farmland, which is irreplaceable and is the foundation of our food security.
- **Preparing Communities For Natural Disasters**
  - Current Problem: Rural communities often struggle with weather-related disaster response and recovery and have access to fewer disaster and emergency resources.
  - Land-grant Solutions: Enhance the ability of rural communities to address natural disasters and reduce disaster-related losses by educating property owners about property protection and emergency preparedness.
  - Benefit: Every \$1 invested in disaster preparedness [saves an estimated \\$13](#) in damages, cleanup and economic losses.
- **Adapting To Shifting Demographics**
  - Current Problem: While rural America [lost population](#) from 2010-2020, rural counties grew post-pandemic—though often with fewer working-age residents.
  - Land-grant Solutions: Help rural communities address the trends associated with population loss as well as in-migration by providing research-based information.

- Benefit: Community leaders can make more informed public policy decisions that support economic and business development, public health, and environmental quality.
- **Creating Jobs Through Small Business Development**
  - Current Problem: Rural entrepreneurs face a range of challenges that can prevent business success.
  - Land-grant Solutions: Provide local business training and counseling.
  - Benefit: Support small business development and local entrepreneurship, boosting and diversifying rural economies.
- **Expanding Access to Broadband**
  - Current Problem: [30%](#) of U.S. households currently have no or limited access to the internet.
  - Land-grant Solutions: Help communities access and use broadband effectively and cooperate with other agencies to expand coverage
  - Benefit: Internet access and training in digital skills is essential infrastructure that empowers individuals, businesses, and communities.
- **Supporting Informed Community Policy-Making**
  - Current Problem: Rural leaders face information gaps because economic data is often unavailable, inaccurate, or presented in inaccessible formats.
  - Land-grant Solutions: Provide access to and understanding of how to use research-based data sets, such as the U.S. Census, housing, economic and job reports, and other major sources of information such as the IMPLAN economic modeling software.
  - Benefit: Leaders can enact policies to improve the quality of life in rural America using research-based strategies that consider local people and places' varying needs.
- **Developing Pathways To Careers For Rural Youth**
  - Current Problem: Rural Gen Zers are [less likely](#) than their urban peers to say good jobs are available in their communities.
  - Land-grant Solutions: Provide rural youth with opportunities to discover future occupations in agriculture, technology and entrepreneurship that allow them to remain in rural America.
  - Benefit: A younger, diverse and skilled workforce in rural communities, which is essential to the future of rural economies.

**Strategic investment in agricultural research, education, and Extension will expand opportunity, strengthen local economies, and ensure every community—rural and urban—can thrive in a changing world.**

## Building Sustainable Food Systems

Growing enough food to feed everyone requires further investments in agricultural research, education, and Extension to drive innovation in food production, processing, and distribution—strengthening local and regional food systems across the country.

U.S. agricultural productivity has stagnated over the past decade while other nations have surged ahead. Without stronger public investment, America’s food production will fall behind.

**What’s at stake:** Food system failures that threaten our national security, including **food supply interruptions, food waste, food insecurity and hunger, foodborne diseases, economic instability,** and a **growing reliance on costly imports.**

### Priorities:

- Achieve national and local food security.
- Bolster supply chain resilience.
- Strengthen local and regional markets.
- Expand the bioeconomy.
- Reduce food insecurity.
- Decrease diet-related diseases.
- Increase agricultural biosecurity.

**Increased investment in agricultural research, education, and Extension can improve the lives of all Americans by:**

- **Reducing food loss and waste**
  - **Current Problem:** Each year, the U.S. wastes about [120 billion](#) meals’ worth of food at an estimated cost of \$382 billion.
  - **Land-grant Solutions:** Research on repurposing agricultural byproducts, extending product shelf life, developing sustainable packaging, and educating stakeholders to minimize waste from field to retailer.
  - **Benefit:** Eliminating avoidable food waste will save the average American family [\\$2,913](#) annually and improve food security and sustainability.
- **Strengthening the sustainability of food supply chains**
  - **Current Problem:** The complexity of the modern food system makes it challenging to measure, and then reduce, the environmental impacts of food production.
  - **Land-grant Solutions:** Conduct cost-benefit, life cycle, environmental impact, and social cost-benefit analyses.
  - **Benefit:** Research will identify opportunities to improve efficiency, reduce inputs, build supply chain resilience, and make food more affordable for consumers.
- **Enabling healthier lifestyles**
  - **Current Problem:** Poor nutrition is a risk factor for [chronic diseases](#), which have become increasingly common in the U.S. and put a major strain on the healthcare system.
  - **Land-grant Solutions:** Implement nutrition education and increase access to food to improve diets.

- Benefit: Reducing diet-related chronic disease will result in a healthier population, a more productive workforce, and a stronger overall economy. A healthier diet could save [\\$50 billion](#) in healthcare costs.
- **Protecting food safety and agricultural biosecurity**
  - Current Problem: Pests, diseases, and pathogens pose a large threat to the food supply. U.S. crop losses due to plant pathogens alone are estimated to cost [\\$21 billion](#) per year. Highly pathogenic avian influenza cost consumers [\\$1.41 billion](#) in 2024.
  - Land-grant Solutions: Developing new surveillance tools and practices to help producers and the entire supply chain with early detection to prevent foodborne contaminants, minimize plant and animal disease outbreaks, and manage pests.
  - Benefit: Improved biosecurity will protect plant and animal health, food safety, and America's food security.
- **Developing better crops and livestock**
  - Current Problem: U.S. agricultural productivity growth, or producing more output with the same inputs, has [declined](#) in recent years.
  - Land-grant Solutions: Improve crop and livestock genetics to increase nutritional value and enhance resistance to pests and diseases, and train producers to use technologies adapted to changing weather patterns.
  - Benefit: Innovations will protect the availability of affordable food for consumers and farmers' future profitability.
- **Advancing local and regional agriculture**
  - Current Problem: Local food systems and farmers face societal, environmental, and economic challenges. Between 2017 and 2022, the U.S. lost [141,733 farms](#), a 7% decline.
  - Land-grant Solutions: Extension programs supporting producer viability in local and regional markets.
  - Benefit: Supporting local and regional food systems will increase domestic food production, reduce food transportation costs, increase net farm incomes, and expand the bioeconomy.
- **Helping agriculture adapt to change**
  - Current Problem: Environmental pressures, economic instability, labor shortages, and shifting consumer preferences threaten the financial sustainability of farmers and ranchers.
  - Land-grant Solutions: Develop and deploy technologies and innovations that address environmental shifts, such as extreme weather and water scarcity, as well as the evolving agricultural labor force.
  - Benefit: New breakthroughs will build resilience in our food system and help farmers thrive economically.

**Strategic investment in agricultural research and Extension will help build a resilient, sustainable food system—one that safeguards our national security, strengthens our economy, and secures America's food future for generations to come.**

## Supporting More Resilient Lands and Communities

United States agriculture must adapt to better withstand the growing challenges of variable weather and extreme events. This requires production practices that regenerate soil, conserve water, and support biodiversity and community resilience.

### What's at stake:

- From wildfires to droughts and floods, agriculture and communities are already grappling with the problem of variable and extreme weather events. Without adaptation, **these challenges will intensify**.
- **Lower crop yields** and greater harm to livestock, forests, fisheries, and communities.
- **Biodiversity will decline** as resistant weeds, pests, diseases, and wildfires become more widespread, disrupting ecosystems and reducing agricultural productivity.
- **Reduced water, air, and soil quality** will lead to severe consequences for food security, human and animal health, and environmental sustainability.

### Priorities:

- Enhance yield stability.
- Improve soil health.
- Boost energy efficiency.
- Increase soil carbon sequestration.
- Increase nitrogen fertilizer use efficiency.
- Manage healthy forests.
- Develop climate-resilient crops and livestock.
- Improve infrastructure and emergency planning for communities.

### Increased investment in agricultural research, education, and Extension will improve the lives of all Americans by:

- **Optimizing nitrogen utilization**
  - Current Problem: Costs for inputs like nitrogen fertilizer are volatile and are projected to increase [\\$12 billion](#) in 2025. Nutrient runoff can lead to environmental issues like water contamination.
  - Land-grant Solutions: Identify innovative agronomic practices that enhance nitrogen use efficiency, soil fertility, structure, and resilience, while deepening our understanding of soil composition and processes.
  - Benefit: Minimizing nutrient runoff helps farmers cut fertilizer costs and improve profitability, while protecting water quality and soil health.
- **Reducing wildfire impacts**
  - Current Problem: Wildfire costs the U.S. [\\$424 billion](#) annually and threatens the safety of communities.
  - Land-grant Solutions: Reduce barriers to collaboration among farmers, land managers, communities, researchers, and policymakers to increase engagement and accelerate the adoption of grassroots innovations for adaptation and resilience.
  - Benefit: Adopting new forestry land management, land cover, and harvesting approaches will build resilience to fire and extreme weather events, while

increasing the number of forest owners with management plans to support healthy forests capable of absorbing carbon dioxide emissions.

- **Developing the crops and livestock of tomorrow**
  - Current Problem: Droughts and floods impact soil health and agricultural productivity. In 2024 alone, extreme weather resulted in crop and rangeland losses estimated at more than [\\$20 billion](#).
  - Land-grant Solutions: Apply gene-editing techniques to create crops and livestock with increased water use efficiency, drought tolerance, and heat tolerance.
  - Benefit: Developing improved crops and livestock will support soil health and help the food system meet the needs of the population.
- **Reducing farm safety net costs**
  - Current Problem: The cost of insuring farms continues to climb, with disaster relief spending expected to total [\\$35.7 billion](#) in 2025.
  - Land-grant Solutions: Expand the adoption of practices to enhance the resilience of agriculture, rangeland, and forest ecosystems by developing adaptive land management plans to optimize production amid variable and extreme weather.
  - Benefit: Improved resiliency will protect crops from weather-related losses and save taxpayers money from paying for the farm safety net and ad hoc payments for farmers.
- **Supporting resilient communities**
  - Current Problem: In 2024, there were [27](#) individual weather and climate disasters with at least \$1 billion in damages in the U.S.
  - Land-grant Solutions: Develop infrastructure and response plans to improve the resiliency of rural and urban communities.
  - Benefit: Every \$1 invested in disaster preparedness [saves an estimated \\$13](#) in damages, cleanup and economic losses.

**Strategic investment in agricultural research, education, and Extension will strengthen the resilience of America’s lands and communities—helping farmers, foresters, and local leaders adapt to extreme weather, protect natural resources, and secure a sustainable future.**

## Protecting America's Water Supply

Communities across the nation are already experiencing the consequences of too much water, too little water, and water that is unsafe to use. Without strategic investment in research, education, and Extension, these challenges will intensify—threatening public health, agriculture, ecosystems, and the economy. Land-grant universities are uniquely positioned to lead the way with solutions that improve water management, strengthen resilience, and protect resources for future generations. But doing so requires new investment now—before the costs of inaction escalate beyond recovery.

### Priorities:

- Increase water use efficiency during food production and processing
- Safeguard water quality
- Reduce production losses from waterlogging, flooding, and drought

### What's at stake:

- **Limited access to safe water** — shrinking water supplies will strain drinking water systems in both rural and urban communities and drive up costs for households and agriculture.
- **Economic disruption** — lower river levels will slow barge traffic, raise shipping costs, and weaken U.S. farmers' competitiveness, while reduced water levels hurt recreation, tourism, and local economies.
- **Infrastructure damage** — overdrawn groundwater will trigger land subsidence, cracking roads, bridges, levees, and wells, and reducing natural flood protection.
- **Public health threats** — degraded water quality will increase exposure to contaminants, placing communities at greater risk of illness.
- **Long-term resource loss** — depleted aquifers and polluted waterways will be harder—and costlier—to restore, limiting options for future generations.

### Increased investment in agricultural research, education, and Extension can improve the lives of all Americans by:

- **Increasing resilience to droughts and floods**
  - Problem: Droughts cost the U.S. more than [\\$6 billion per year](#) and floods cost approximately [\\$5 billion per year](#), threatening the ability of communities to respond to such events and thrive.
  - Land-grant Solution: Create a multi-year strategy that integrates innovative practices, Extension programs, and water monitoring to inform policy interventions aimed at increasing resilience to floods and droughts.
  - Benefit: Increased resilience to floods and droughts will result in cost-saving personal, municipal, and agricultural property and infrastructure improvements.
- **Protecting water quality**
  - Problem: Aging U.S. water infrastructure cannot keep pace with water quality standards, and nutrient runoff in agricultural systems can lead to environmental issues like water contamination.
  - Land-grant Solution: Advance best practices, tools, Extension programs, and policies that improve and protect water quality.

- Benefit: Protecting water quality will both protect public health and preserve aquatic ecosystems that are important for the environment and the economy.
- **Promoting water conservation**
  - Problem: Nearly [30 million](#) Americans live in areas with limited water supply, and more than [2 trillion](#) gallons of treated drinking water are lost annually due to leaks, broken mains, and outdated technology in the aging U.S. water system.
  - Land-grant Solution: Collaborate with communities and public officials to develop strategies addressing water accessibility challenges.
  - Benefit: Conserving water will protect the health of communities and agricultural systems now and for generations to come.
- **Increasing water use efficiency**
  - Problem: Agriculture is responsible for a significant amount of the total consumptive water use in the U.S. and irrigation accounts for [47%](#) of freshwater withdrawals, straining an already limited water supply and threatening agricultural productivity.
  - Land-grant Solution: Advance best practices, tools, and Extension programs, and policies for improving crop and livestock productivity while decreasing water use.
  - Benefit: Increasing water use efficiency will increase agricultural productivity, protect crops and livestock, and secure an affordable food supply.

**Strategic investment in agricultural research, education, and Extension will protect America’s water supply and ultimately safeguard our national security, strengthen our economy, and secure our food future for generations to come.**