

**NC STATE**

EXTENSION



**Agents of Change**  
2022 ANNUAL REPORT





## OUR MISSION

We extend research-based knowledge to all North Carolinians, helping them transform science into everyday solutions that improve their lives and grow our state.

## OUR VISION

We are the trusted, go-to resource for connecting research and education to the communities, economies and families of our state, creating prosperity for all North Carolinians.





## FROM THE DIRECTOR

As Extension professionals at NC State University, we're part of something bigger. We're the most recent chapter in a rich and storied history that spans more than a century of service.

Extension was born over 100 years ago from a need to connect farmers and rural areas with the latest agricultural research. In the 21st century, we've grown to encompass much more, connecting communities across our state with trusted tools and knowledge they depend on.

While change can be challenging, we again faced it head-on this past year. Among our Extension highlights from 2022:

- > We grew to over **1,200 experts**, who delivered more than **25,000 educational programs** statewide, as we continued to become a more diverse organization at all levels.
- > We engaged **2.6 million participants** through educational outreach activities at events, trainings, shows and more across North Carolina.
- > We raised over **\$1.3 million** in donations, while our county partners invested **\$2.3 million** in local center upgrades, bolstering our capacity to provide community programming.
- > We helped NC State achieve its **highest ranking ever** in the annual Best Colleges list from *U.S. News & World Report*, as one of the top 30 public universities in the nation.
- > We **launched an ambitious strategic plan**, with the input of thousands of stakeholders, to chart our course in the coming years.

Moving forward, we must continue to evolve and innovate to meet the needs of the diverse audiences we serve statewide. Our new NC State Extension strategic plan will help light the way as we pursue our land-grant mission and an even brighter future.

Together we'll write the next chapter in Extension's history, and promote positive change for all North Carolinians.

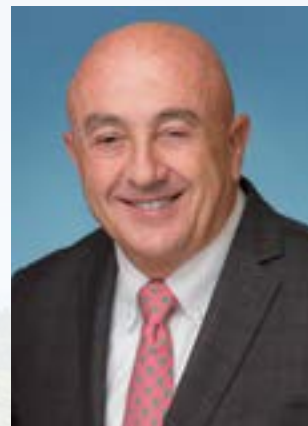


**A. Richard Bonanno**

Director, NC State Extension  
Associate Dean, College of Agriculture and Life Sciences  
Vice Provost, University Outreach and Engagement



Discover more about our impact at [go.ncsu.edu/ExtensionImpacts](https://go.ncsu.edu/ExtensionImpacts).



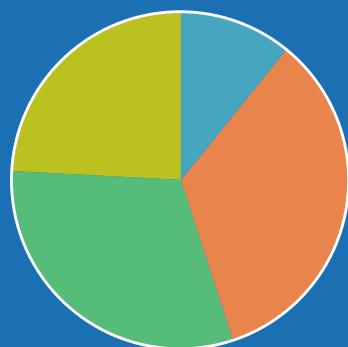
***"Over the decades, we never  
lost sight of our mission.  
Because in Extension, we are  
all agents. Agents of change."***

A. Richard Bonanno

## TABLE OF CONTENTS

Partnership for Prosperity	3
Extension Is Everywhere for N.C.	4
A System of Solutions	5
Core Areas   Impact Summary	6
Driving Rural Economies	7
Growing Urban Opportunities	8
Agriculture	9-10
Food and Nutrition	11-12
4-H Youth Development	13-14
Natural Resources	15-16
Program Highlights	17
Stakeholder Support	18
In Your Neighborhood	19-20
Transforming Tomorrow	21-22

## ANNUAL EXPENDITURES



Federal	\$14.8M
State	\$47M
County	\$42.2M
*Other	\$32.9M

**TOTAL** **\$136.9M**

*\*Grants, contracts, donations, etc.*



**101**

Local Centers



**1,000+**

Experts



**200+**

Websites

## Partnership for Prosperity

As a land-grant university, NC State has an important obligation to serve our state through Extension. With roots that stretch across every county, NC State Extension provides practical, science-based guidance that helps individuals, families, businesses and communities make informed decisions and achieve better outcomes.

Working alongside USDA's National Institute of Food and Agriculture, N.C. A&T State University, local governments, and industry and community partners, we also operate as part of a unique statewide network of expertise called **N.C. Cooperative Extension**.

*Together, we grow North Carolina.*

**\$2.1B**

Extension's annual economic impact on North Carolina



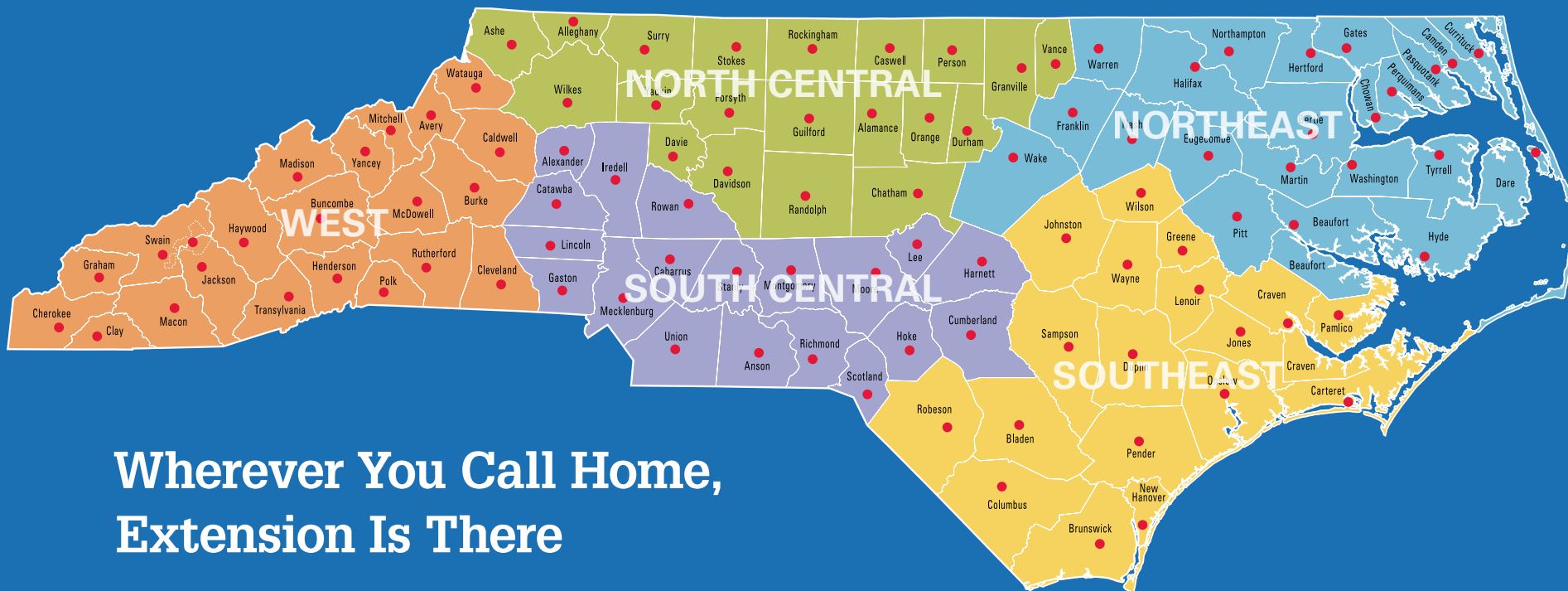
**27-1 ROI**

Economic return on government investments

**1** TRUSTED SOURCE FOR NORTH CAROLINIANS



Discover more at [go.ncsu.edu/About-Extension](https://go.ncsu.edu/About-Extension).



## Wherever You Call Home, Extension Is There

Find your local Extension center:  
[go.ncsu.edu/CountyCenters](http://go.ncsu.edu/CountyCenters)



Extension provided more than  
**25,000**  
educational programs statewide



**136,000+**  
Educational outreach activities  
**2.6M**  
Total participants



Extension produced  
**343**  
new or revised publications



**3.8M**  
Extension website visitors  
**9M**  
Total pageviews



## ADMINISTRATION

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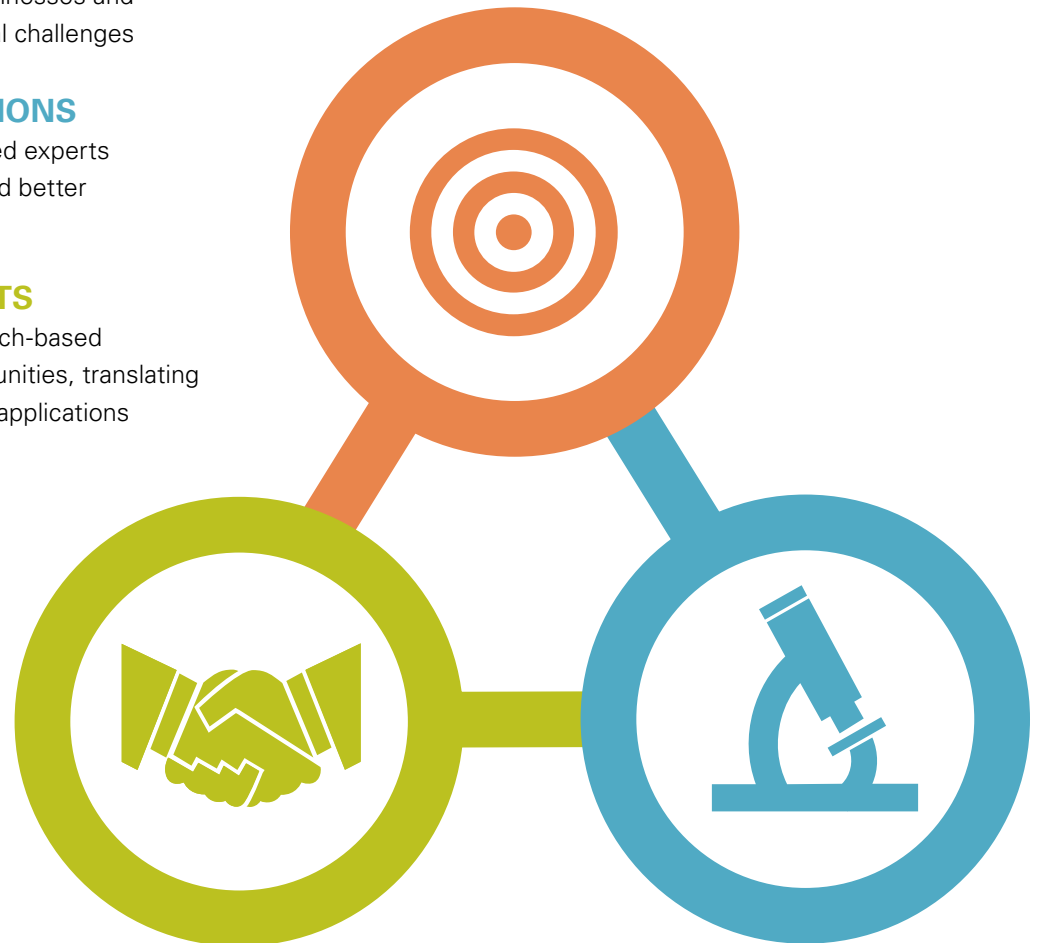
### **Mike Yoder, Ph.D.**

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# A System of Solutions Across the State

NC State Extension serves as a bridge between North Carolinians and one of our country's leading land-grant universities. Through Extension, we take groundbreaking research from our university and deliver timely tools and technology directly into the hands of North Carolinians.

- 1 IDENTIFY ISSUES**  
Extension experts in every county engage with farmers, businesses and families to determine local challenges
- 2 RESEARCH SOLUTIONS**  
County- and campus-based experts collaborate to research and better understand local issues
- 3 TRANSFER RESULTS**  
Extension delivers research-based resources back to communities, translating knowledge into practical applications



# Putting Knowledge to Work

NC State Extension organizes our core programming into three areas. While these areas do not represent all of Extension's efforts, they reflect the base services we offer across North Carolina, as well as where we're best equipped to impact the state's communities and economy.



## FEEDING OUR FUTURE

Extension innovates better agricultural products and practices, connecting farmers with research-based tools and information to help grow North Carolina's nearly \$100 billion agriculture industry.

- > **249** county employees
- > **90,348** educational activities offered
- > **123,450** participants engaged in program activities
- > **3,003** farms and others in the local food supply chain increased revenue



## IMPROVING OUR HEALTH

Extension helps people make healthier decisions, reduce their risk of chronic disease and live better lives, while educating the public about agriculture and local food systems.

- > **109** county employees
- > **10,116** educational activities offered
- > **49,998** participants engaged in program activities
- > **8,474** food-insecure households received emergency food assistance



## ENRICHING OUR YOUTH

Extension's 4-H program addresses the diverse issues and needs of today's youth, helping hundreds of thousands of youth grow into healthy and engaged leaders.

- > **101** county employees
- > **20,787** educational activities offered
- > **188,425** youth participated in 4-H activities
- > **4,046** youth gained college/careerskills

Note: An additional 139 NC State employees are affiliated with other / multiple program areas locally (not included above), while another 136 Extension employees are funded entirely by our county partners.

# Transforming Rural Communities

While much is made of our state's growing population and urbanization – North Carolina ranks No.9 in population among all states – nearly as many people reside in rural counties (~3.6 million) as urban counties (~3.7 million).

**Of the state's 100 counties, 78 are rural, according to the N.C. Rural Center.**

Through initiatives like NC AgVentures, Cultivate NC, local food programming, broadband and digital literacy efforts, and the Farmworker Health and Safety Education Program, Extension builds strong agriculture and local food economies, facilitates job creation, promotes access to new technologies, and helps protect farmworkers while increasing profits for rural agribusinesses.

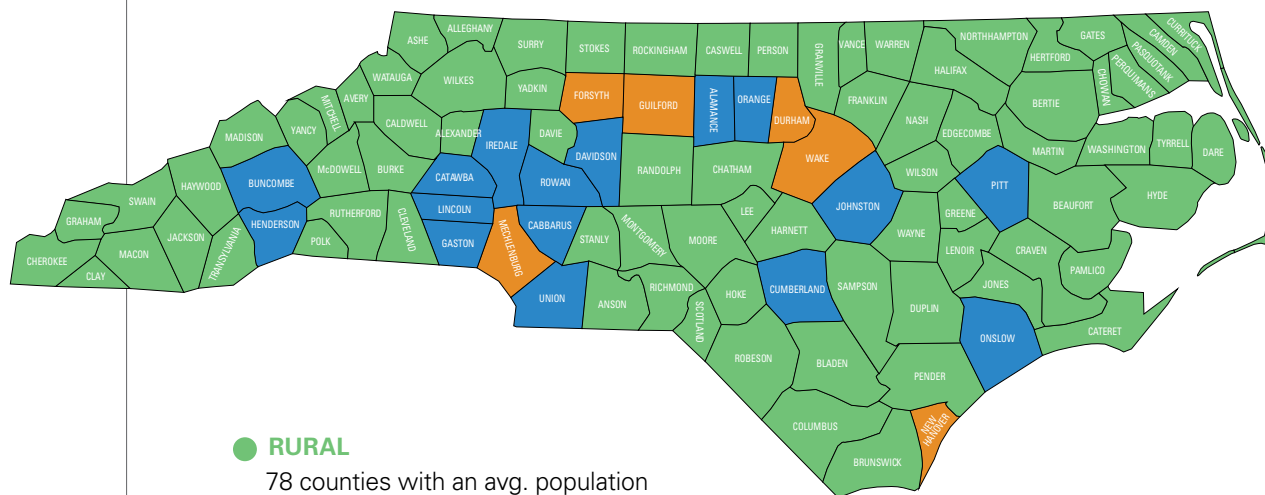
Extension experts in our rural communities coordinated nearly **19,000 educational activities** for roughly **315,000 people** in 2022.

- > **3,139** animal and crop producers adopted farm safety practices
- > **546** new farms began selling into rural markets
- > **2,538** farms and others in the local food supply chain increased revenue
- > **7,304** youth gained key career and employability skills through Extension 4-H programs
- > **20,090** individuals increased consumption of fruits and vegetables



## Bridging the Digital Divide

Although agriculture generates close to \$100 billion for North Carolina's economy, many farmers still lack access to high-speed internet. NC State has partnered with the state to help inform ongoing research, policy and funding recommendations regarding broadband connectivity. As broadband expands to more rural communities, NC State Extension plays a vital role in addressing digital literacy, making sure farmers know how to leverage new technology, expand their markets and grow North Carolina agriculture.



### ● RURAL

78 counties with an avg. population density of 250 people/sq. mi. or less

### ● REGIONAL CITY / SUBURBAN

16 counties with an avg. population density between 250 and 750 people/sq. mi.

### ● URBAN

6 counties with an avg. population density that exceeds 750 people/sq. mi.





*NC State Extension Master Gardener volunteer Betsy Hamilton is part of the therapeutic horticulture team in Wake County.*

## Meeting The Needs of Growing Urban Populations

The Wake County students listened in rapt attention as NC State Extension Master Gardener<sup>SM</sup> volunteers Leslie Cohen and Mitzie Barnette explained about growing cycles and how to prepare the perfect soil.

The youth, in grades 6-12, participated in a 12-week program called Garden Corps, a partnership between NC State Extension, the Food Bank of Central & Eastern North Carolina and the City of Raleigh Parks and Recreation.

Garden Corps participants plant and harvest in the teaching garden, and receive nutrition information and cooking lessons in the on-site kitchen.

“They leave here not only knowing how to grow their own food, but equipped to inspire and teach others how to grow their own food,” Cohen said.

The food grown in the teaching garden goes into the Food Bank and is distributed to people in need in the community.

“It helps with food insecurity,” Cohen said.

Food insecurity is a major focus of Extension’s urban programs, which primarily take place in Durham, Forsyth, Guilford, Mecklenburg, New Hanover and Wake counties. From community gardens to small farm boot camps for urban growers to nutrition and cooking classes, Extension helps meet vital needs.

Other Urban Extension efforts focus on many of the same areas as rural communities.

Programs include stormwater runoff mitigation to keep polluted water from entering waterways, and coordinating volunteer planting and tree care activities in urban environments.

Durham County launched an initiative to educate school kids about democracy. More than 8,000 youth participated in the 2022 Kids Voting Durham Midterm Elections, voting in schools, online and at libraries.

## Extension in Urban Areas



### FOOD and AGRICULTURE

- > Increasing agricultural awareness
- > Tailoring gardening and food production to urban environments
- > Strengthening local food systems



### NATURAL RESOURCES

- > Promoting water conservation and protecting water quality
- > Improving waste management practices
- > Developing and maintaining a healthy tree canopy in urban environments



### HEALTH and NUTRITION

- > Promoting healthy lifestyles and decreasing risk of chronic disease via nutrition education
- > Improving food access and educating families on food safety and preservation
- > Certifying retail food managers in food safety practices



### 4-H YOUTH DEVELOPMENT

- > Teaching life skills and developing future leaders
- > Strengthening STEM education and preparing underserved youth for college and careers
- > Promoting healthy minds and bodies through holistic wellness strategies



### FAMILIES and COMMUNITIES

- > Increasing food security and leading emergency food relief
- > Promoting physical, mental, environmental, social and financial wellness
- > Building capacity of local nonprofits to address critical community issues

# The Industry's Golden Goose

The North Carolina poultry industry was in the national spotlight in 2022. The 20,000-plus brightly colored eggs at the White House Easter Egg Roll in April were provided by Braswell Family Farms, a Nash County commercial egg producer. And the two toms that received a presidential pardon at Thanksgiving were raised at Circle S Ranch in Union County.

Those were visible signs of an industry that remains strong — North Carolina is No. 1 in the nation for total poultry/egg cash receipts — thanks in large part to the work of Extension experts statewide.

“We have programs that help the industry train their personnel — how to evaluate egg quality, how to make eggs better, safer, what impact production has on quality,” Extension poultry specialist Ken Anderson said. “The other thing is working with a company to answer questions and solve problems they have.”

As everyone who shops for eggs knows, there are major issues affecting producers that impact consumers. Nationally, highly pathogenic avian influenza (HPAI) depopulated more than 43 million laying hens, spurring a shortage of eggs and a spike in prices for consumers and farmers alike. Production costs also remain high.

“Feed accounts for 70-75% of what goes into producing a dozen eggs,” Anderson said. “Three years ago we were paying \$300 a ton for feed. Now we’re paying \$600.”

With HPAI an ongoing threat, biosecurity education was a focus of Extension programs in 2022. Other work included ongoing efforts to help the industry transition to cage-free production, which also adds to production costs. Extension is helping determine which birds perform best in that environment and providing guidance on raising the birds.

“North Carolina numbers are going to continue to grow,” Anderson said. “As long as we keep our birds healthy and don’t have any outbreaks, we’re going to be in good shape.”

Extension has long supported the state’s egg producers, and the Braswells helped ensure that support remains strong by endowing a new Extension poultry specialist position, filled by Aaron Kiess last year.



Discover more at [go.ncsu.edu/NCEggstoWashington](https://go.ncsu.edu/NCEggstoWashington).





# Building a Stronger Agricultural Future

**Extension experts help foster the long-term success and sustainability of North Carolina agriculture, because vibrant main streets depend on a thriving local economy.**

## N.C. Agriculture Industry

Agriculture remains North Carolina's largest industry, generating **\$93 billion** annually while employing roughly **18%** of the state's workforce. Ours is the No. 3 most diverse agriculture economy in the country, with more than **90 commercial crops** and a **robust animal agriculture** presence.

- > **789,000** jobs
- > **45,000** farms
- > **8.3M** acres
- > **#1** in sweet potatoes, tobacco and poultry/egg cash receipts
- > **#6** in livestock cash receipts
- > **#9** in all farm cash receipts

**Animal Ag = 69.5%**  
**Crops = 30.5%**



Sources: USDA-NASS, 2022 North Carolina Agricultural Statistics; NC State, N.C. Agriculture Summary 2021

## Converting Waste to Quality Beef

The beef industry has a rich history of taking byproducts from other agricultural industries, like peels from fruits and vegetables or the corn gluten from corn syrup, and upcycling them into cattle feeds. Now Extension is exploring what other

byproducts, like those from North Carolina's beer and cotton industries, may be suitable to upcycle into feed. The goal is to decrease producers' feed costs, and potentially benefit consumers when buying that steak or burger. [go.ncsu.edu/WastetoBeef](https://go.ncsu.edu/WastetoBeef)

## The Gift That Keeps On Giving

North Carolina grows more than 4 million Christmas trees annually (No. 2 in the country). Now, with the addition of a new Christmas tree seed nursery facility, NC State Extension specialists are researching how to breed an even better tree variety for North Carolina farmers and consumers. They're also exploring the potential for Fraser fir compounds related to aroma to be used in the fragrance industry. Future seasons are looking merry and bright for North Carolina Christmas tree farmers.

[go.ncsu.edu/GiftThatKeepsGiving](https://go.ncsu.edu/GiftThatKeepsGiving)

## Growing Better Berries

Chances are, that deep red, plump strawberry that you picked fresh off the plant at your local farm was a Chandler. Or possibly a Camarosa. In a couple of years, it might be a Rocco, or a Liz. Perhaps a Ruby June. North Carolina ranks No. 3 in national production of fresh market strawberries, yet the industry is heavily reliant on berries developed in California. NC State Extension specialists are on a quest to grow a better berry for our farmers and consumers.

[go.ncsu.edu/GrowingBetterBerries](https://go.ncsu.edu/GrowingBetterBerries)

## Homegrown Wisdom

NC State Extension's Homegrown video series features timely expertise from our statewide network of 1,000-plus agents, specialists and experts. The series connects younger generations of North Carolinians, further removed from the farm, with Extension and the importance of agriculture in their daily lives.

In 2022, audiences watched our videos **over 100,000 times**, consuming **more than 3,000 hours** of Homegrown features. Discover more at [go.ncsu.edu/HomegrownWisdom](https://go.ncsu.edu/HomegrownWisdom).



## TOP VIDEOS 2022



### Coming Out of the Shell: North Carolina Peanuts

Featuring David Jordan, NC State Extension Peanut Specialist



### Meet The Muscadine: The Grape Of The South

Featuring Penny Perkins-Veazie, NC State Plants for Human Health Institute



### Moo-ving Milk: How Milk is Transported from Farms to Families

Featuring Brenda Sutton, Retired Extension Director, Rockingham County

Watch Homegrown's "Greatest Hits" playlist!



# Improving Health Outcomes

Karen Wilson is a four-time cancer survivor, but her many and myriad treatments caused her body chemistry to change.

"I became diabetic," she said. "I had a hard time getting my numbers down. I went into sepsis four times."

She sought the advice of doctors and specialists, but nothing helped. Then she found a class on the Mediterranean diet taught by Extension agents Sydney Knowles, Family and Consumer Sciences agent in Sampson County, and Cassidy Hall, who has the same role in neighboring Johnston County.

Med Instead of Meds is a six-session series taught by FCS agents in Extension centers throughout North Carolina. Extension recommends the Mediterranean diet as a research-based eating style to promote health and decrease the risk of many chronic diseases, including certain types of cancers, Alzheimer's disease, type 2 diabetes, high blood pressure and cardiovascular disease.

Participants learn to read nutrition labels, the importance of eating fruits and vegetables, select the best carbohydrate sources, and how to make the best protein and fat choices. Wilson started seeing results almost immediately.



"My immune system went up and my blood sugar went down," she said.

Knowles became an Extension agent to give back to her community, and it's gratifying to see results—in people motivated to help get the word out, and in someone like Karen Wilson whose life has been transformed.

"We don't always get that kind of feedback," Knowles said. "When you have that one person who tells you all your programs have done for them, you're like 'OK, our work in Extension is making a difference!'"

**Extension experts deliver evidence-based programming in nutrition, health, food safety, food preservation, and local foods. Programs at the county level might also address important community issues related to housing, parenting, family resource management, human development and aging.**

Read more at  
[go.ncsu.edu/ImprovingHealthOutcomes](https://go.ncsu.edu/ImprovingHealthOutcomes).





# Promoting Better Health Through Food and Nutrition

## Food Safety

The CDC estimates 48 million Americans get sick from foodborne diseases each year. Ongoing supply chain issues and changes in how we buy, cook and consume food only magnify the risk. Extension's Safe Plates Food Safety Information Center (SPFSIC) provides consumers and food businesses with practical, evidence-based information to help them make safe food choices.

- > **1.3M** people reached by SPFSIC social media campaigns
- > **744** social media posts
- > **142** educational videos and graphics developed
- > **1.2M** total video views
- > **2,769** food handlers or managers who increased their knowledge and skills of safe food handling

Find resources for food safety at home at

[go.ncsu.edu/FoodSafetyatHome](https://go.ncsu.edu/FoodSafetyatHome).

Learn more about Safe Plates at [go.ncsu.edu/SPFSIC](https://go.ncsu.edu/SPFSIC).

## Consumer Food Preparation and Preservation

Consumer programs focus on food preparation and preservation skills that help promote healthy eating. Efforts like the Extension Master Food Volunteer program, Med Instead of Meds, Cook Smart, Eat Smart and others teach healthy and safe food preparation techniques.

- > **22,632** consumers increased their knowledge of safe home food handling, preservation or preparation practices
- > **20,693** participants learned how to prepare and preserve local foods
- > **59,225** adults increased their consumption of fruits and vegetables

## SNAP-Ed (Steps to Health)

The Supplemental Nutrition Assistance Program – Education (SNAP-Ed) promotes improved access to healthy food and lifestyles for limited-resource individuals and families nationwide. NC State's SNAP-Ed program, Steps to Health, celebrated its 15th year in 2022. The program promotes nutrition education and physical activity in schools, community centers, early childhood education centers and more.

- > **13,000** participants impacted through efforts to increase healthy food options and physical activity
- > **3,166** participants enrolled in nutrition education programs
- > **3.8M** impressions from social media campaigns

## EFNEP

The Expanded Food and Nutrition Education Program (EFNEP) is a federally-funded program conducted through Extension. EFNEP promotes healthy living among limited-resource families through practical education on nutrition, cooking, physical activity and shopping on a limited budget.

- > **1,629** families served in 40 counties
- > **13,029** participants in 4-H EFNEP
- > **97%** of participants improved dietary intake
- > **53%** of participants now practice daily physical activity
- > **96%** of participants practice better food resource management
- > **86%** of participants improved food safety habits

Learn more about EFNEP's annual impact at

[go.ncsu.edu/EFNEP2022](https://go.ncsu.edu/EFNEP2022).



# Learning Life Lessons Through 4-H Dairy Projects

It's a stifling, sultry summer afternoon at Sunrise Ridge Farm, a 78-acre spread in Warren County. Matthew Place, the Extension livestock agent in the county, emerges from a barn with a handful of halters.

"All right," he says. "Y'all go catch them."

Eight boys and girls obediently enter a small pasture and target a small herd of dairy heifers. The kids quickly corral them and line them up, ready for inspection. Not bad, considering none of them had worked with cattle until just a few short weeks ago.

"When you know these kids have zero previous experience, they are doing great," said Marti

Day, Extension area specialized agent for commercial dairy.

They are participating in a 4-H dairy calf project, the first of its kind in Warren County and one of a dozen across the state. There was a time when shows were dominated by the children of dairy farmers, but these days most of the programs are aimed at non-traditional youth.

One of those was in Guilford County, where 10 4-H youth participated. Many were from urban environments — including a couple who were seeing a calf for the first time.

All participants have the same experiences. They learn how to handle and show a calf, and about the parts of the animal.

"These kids and their families now have a hands-on, face-to-face experience with dairy cattle and farmers," Day said. "It helps them understand what a crazy amount of work and investment goes into producing their food."

"The overarching goal is creating good stewards for the future," said Sarah Paschall, Extension 4-H agent in Guilford County. "They are learning responsibility. We are creating future leaders whether they stay in agriculture or not."

Learn more at [go.ncsu.edu/4HDairyLifeLessons](https://go.ncsu.edu/4HDairyLifeLessons).





# Making the Best Better

Not only is 4-H North Carolina's largest youth development organization, but no other youth development program is poised to support every participant with science-backed curriculum and educational tools in so many disciplines. Along with traditional 4-H programming such as agriculture, animal science, food and nutrition, and citizenship, Extension's 4-H offerings include numerous opportunities for youth to engage in diverse activities from STEM, financial literacy and substance abuse prevention to emotional health, water quality and weather among others.

## 4-H By the Numbers

From the youngest cloverbud to college-age students, 4-H provides the opportunity for youth to build confidence and life skills throughout their formative years. Today's 4-H youth are tomorrow's leaders..

- > **188,255** youth participated in 4-H activities
- > **19,588** youth participated in 4-H clubs
- > **9,652** adult volunteers supported 4-H
- > **4,600** youth participated in 4-H camping programs
- > **17,012** youth participated in healthy living programming
- > **5,057** youth participated in programs on substance abuse prevention

## Growing the Leaders of Tomorrow

Extension 4-H professionals work with North Carolina's youth "to make the best better," equipping them with the confidence and knowledge to make the world a better place.

- > **137,415** youth participated in school enrichment programs
- > **5,890** youth gained career/employability skills
- > **8,877** youth increased their knowledge, attitudes, skills and/or aspirations regarding leadership



# Protecting Our Shared Environment

Extension faculty and staff in the College of Natural Resources (CNR) are committed to solving natural resources challenges by helping communities, businesses and citizens to manage and sustain our shared natural environment.

*Students learn about forest management and conservation practices at NC State's Carl Alwin Schenck Memorial Forest.*

In 2022, Extension staff in CNR and our partners helped North Carolinians make informed decisions concerning the management, enhancement and enjoyment of their forests and other natural resources through research-based education.

## Extension Forestry

- › Secured \$1.8M from the Department of Defense's Readiness and Environmental Protection Integration Program to mitigate flooding and wildfires around two military installations
- › Enrolled more than 570 individuals from around the globe in a prescribed fire course that will benefit millions of acres of land

- › Received \$385,000 from the Tobacco Trust Fund for a new seed research facility for the Whitehill Lab Christmas Tree Genetics program at the Upper Mountain Research Station

## Wood Products Extension

- › Delivered multi-state workshops focused on firewood business operations, increasing the knowledge of 86 business owners, fireplace vendors and others
- › Conducted a workshop on the basics of hardwood lumber kiln schedules and drying

operations, with attendees reporting ~2.3% growth in production and drying throughput

- › Presented to 65 furniture industry professionals through a national workshop that promoted the use of wood in design and manufacturing of upholstery frames

## Tourism Extension

- › Hosted 210 guests in a webinar on Black landownership in forest and farm-based tourism micro-entrepreneurship
- › Raised more than \$91,000 for Extension's Vacationer Supported Agriculture (VSA) program, a partnership with 26 vacation realties and 69 farmers from 14 counties that educated more than 55,000 vacationers about local foods and farms
- › Obtained \$50,444 in funding from Visit NC to research the connections between tourism and retirement in North Carolina

Discover more about experiencing the beauty and splendor of North Carolina through agritourism at [go.ncsu.edu/Homegrown-Agritourism](https://go.ncsu.edu/Homegrown-Agritourism).

## Renewable Resource Extension Act

(RREA) funds from USDA-NIFA, combined with \$573,374 in additional funding and in-kind contributions, helped NC State Extension provide science-backed guidance to more than 745,530 North Carolina landowners, natural resource professionals, and others in 2022.





## Solving the Stormwater Upstream Battle

**Bill Hunt, NC State Extension specialist and William Neal Reynolds Distinguished Professor, is a leading expert in stormwater management and green infrastructure. The field focuses on improving water quality and reducing flooding, as well as increasing biodiversity and creating recreational and educational spaces.**

Hunt started his career with NC State Extension over 25 years ago, when he was hired to fight the massive fish kills due to stormwater problems in eastern North Carolina. Although his work still involves mitigating risks to wildlife, it has expanded to many different areas.

"The reason stormwater is such a big deal is it touches so many aspects of our lives in both day-to-day living as well as recreation," said Hunt.

Hunt works with cities, small and large, across the state. He also partners with the N.C. Department of Environmental Quality and the Department of Transportation, which fund some of his research.

Hunt's quest to solve North Carolina's stormwater issues has taken him to every continent except Antarctica, where he has grabbed the attention of many others from across the international pond. Back home, he's proud to see many of his protégés now managing stormwater in key roles across the nation. As Hunt continues to travel and develop solutions across the state and around the globe, he's confident that stormwater management is in good hands for generations to come.

Read more at [go.ncsu.edu/StormwaterSolutions](https://go.ncsu.edu/StormwaterSolutions).

**PHOTO** - Bill Hunt inspects the rooftop garden of the Ruby C. McSwain Education Center at NC State's JC Raulston Arboretum. The material allows plants to grow and filter rainwater run-off.

## Garbage to Gardens

One local Extension program is talking serious trash. Seriously talking about responsible trash disposal, that is. After successfully piloting its Garbage to Gardens program, which encourages children to rethink their waste habits and conserve natural resources, Extension's New Hanover County Center has received a two-year, \$180,000 USDA food waste reduction grant. Now the team is working to expand the program to all of the county's public schools.

Read more at [go.ncsu.edu/GarbagetoGardens](https://go.ncsu.edu/GarbagetoGardens).

## Growing Craft Spirits Tourism

Carla Barbieri, Extension agritourism specialist in CNR, helps small farmers compete in ways that sustain culture, environments and livelihoods. Her program also attracts students from around the world, like Claudia Gil Arroyo. As tourists visit North Carolina breweries and distilleries in record numbers, Gil Arroyo researched the potential for craft beverages to attract new tourism markets. The resulting tools



*Extension experts, like Joanna Radford with Extension's Surry County Center, help farmers develop and promote new agritourism opportunities.*

better position Extension to help farmers and businesses assess tourism opportunities and market local destinations.

Read more at [go.ncsu.edu/CraftSpiritsTourism](https://go.ncsu.edu/CraftSpiritsTourism).

# Investing in the Future

## Local Partners Pave the Way

Extension's county partners invested nearly \$2.3 million in local center renovations in 2022.

A shining example of county support, the Bonnie B. Davis Environment and Agricultural Center in Hillsborough opened in FY2022. Home to Extension's Orange County team and other governmental agencies, the 16,950-square-foot facility can accommodate community gatherings, horticulture gardens and a cooking-demonstration kitchen. The building honors the life and legacy of Bonnie B. Davis, who broke down barriers as the county's first Black Extension agent in 1950.

Read more at [go.ncsu.edu/BonnieBDavisCenter](https://go.ncsu.edu/BonnieBDavisCenter).



*The Bonnie B. Davis Environment and Agricultural Center, home to Extension's Orange County office, celebrates the legacy of the county's first Black Extension agent. Photo from Chapelboro.com.*

## The Farmers' Ambassador

As NC State's North Carolina Plant Sciences Initiative (N.C. PSI) continues to ramp up operations, building and maintaining a pipeline of information between campus researchers and the state's farmers is increasingly important. Enter Rachel Vann, the new Extension Outreach and Engagement Platform Director for N.C. PSI. Vann's focus is to make sure research outputs are easily implemented on-farm, and that involves Extension expertise statewide.

Read more at [go.ncsu.edu/TheFarmersAmbassador](https://go.ncsu.edu/TheFarmersAmbassador).

## Growing Hope

The NC State Extension Master Gardener<sup>SM</sup> program operates in 83 counties, where Extension experts and volunteers provide science-based gardening knowledge that helps North Carolinians cultivate healthy plants, landscapes, ecosystems and communities. The program includes more than 3,800 volunteers statewide. Among their noteworthy efforts, Master Gardener volunteers in Wake County are working with people recovering from addiction to provide hope through horticulture.

Read more at [go.ncsu.edu/GrowingHope](https://go.ncsu.edu/GrowingHope).

## The Buzz Around Beekeeping

According to NC State Extension apiculture specialist David Tarpy, North Carolina is home to the most beekeepers in the nation per capita. There's been a buzz around beekeeping in recent years, amplified by a growing awareness of the vital role that honey bees play in pollination and agriculture production. NC State's apiculture program works through Extension to educate North Carolina beekeepers and promote healthy honey bee populations.

Read more at [go.ncsu.edu/BeekeepingBuzz](https://go.ncsu.edu/BeekeepingBuzz).



## BEE THE SOLUTION

Working alongside the N.C. State Beekeepers Association and beekeepers statewide, NC State is developing a one-of-a-kind honey bee program. In addition to a \$4M apiculture research facility opening in 2024, the university is raising funds for the nation's first endowed apiculture professorship. This permanent position will solidify North Carolina as the nation's leader in bee research and Extension, while ensuring honey bee health for generations to come. Help us protect our pollinators at [go.ncsu.edu/BeetheSolution](https://go.ncsu.edu/BeetheSolution).





## Stakeholder Support Drives Success

Extension's Millstone 4-H Camp in Ellerbe, our longest consistently operating camp in the state, will be even better prepared for the future thanks to two significant gifts.

A gift from the Farm Credit Associations of North Carolina will help renovate the 80-year-old dining hall at Millstone. A separate gift from James W. Clark Jr., a longtime friend and supporter of 4-H, will help create the new Clark Classroom at the North Carolina 4-H History and Learning Center Complex at Millstone.

Read more at [go.ncsu.edu/MillstoneGifts22](https://go.ncsu.edu/MillstoneGifts22).



### DONATIONS

**1,140**

Donors Supporting  
Extension Programs

**1,400+**

Gifts and Donations  
Supporting Extension

**\$1.3M**

Total Contributions and  
Commitments (FY22)

**187**

Number of Extension  
Endowments

**49%**

Growth in Contributions  
(FY21 to FY22)

Explore ways to support  
our efforts at

[go.ncsu.edu/  
CALSWaystoGive](https://go.ncsu.edu/CALSWaystoGive).

# Extension In Your Neighborhood

## NORTHEAST

- > Counties: 22
- > Households: 840,894
- > Food Insecurity: 11.4%
- > Farms: 5,410
- > Ag Cash Receipts: \$2.2B
- > Extension Employees: 158
- > Extension Programs: 7,346

## NORTH CENTRAL

- > Counties: 20
- > Households: 1,114,165
- > Food Insecurity: 13%
- > Farms: 14,643
- > Ag Cash Receipts: \$1.4B
- > Extension Employees: 167
- > Extension Programs: 4,708

## SOUTHEAST

- > Counties: 18
- > Households: 768,945
- > Food Insecurity: 14.5%
- > Farms: 7,657
- > Ag Cash Receipts: \$4.5B
- > Extension Employees: 158
- > Extension Activities: 4,867

## SOUTH CENTRAL

- > Counties: 19
- > Households: 1,391,125
- > Food Insecurity: 12.2%
- > Farms: 9,920
- > Ag Cash Receipts: \$2.4B
- > Extension Employees: 133
- > Extension Activities: 4,812

## WEST

- > \*Counties: 22
- > Households: 593,721
- > Food Insecurity: 14.6%
- > Farms: 8,788
- > Ag Cash Receipts: \$599.1M
- > Extension Employees: 118
- > Extension Activities: 4,262

*\*Includes the Eastern Band of Cherokee Indians*



### Hometown Hero | **Sheila Gregory**

The Medicare open enrollment period can be difficult to navigate. There are basic benefits to consider, along with supplemental plans, advantage plans and prescription drug plans. In Currituck County, seniors and others eligible for Medicare have a caring and compassionate advocate in Sheila Gregory, a Family and Consumer Sciences program assistant. Gregory explains the basics of the program in periodic group training sessions at Extension's Currituck County Center. She also holds individual counseling appointments — 103 during open enrollment in 2022. “She saved these individuals over \$20,000 in medical insurance costs when her recommendations were followed,” County Extension Director Cameron Lowe said. “Sheila regularly works outside of normal business hours, conducts phone and in-person consultations, and even makes home visits to ensure that her clients get the help that they need.”

### Hometown Hero | **Vincent Webb**

Vincent Webb is constantly looking for ways to pass on his passion for healthy living. The Family and Consumer Sciences agent in Guilford County travels throughout the area delivering in-person programs to help seniors enjoy active and healthy lives, and conducts lessons on the Med Instead of Meds diet at the Extension office. He offers short online classes on kitchen skills including cooking with grills, air fryers and instant pots and using herbs and spices, all packed with information and humor. In August, he won the FCS Team Award for programming from the N.C. Extension Association of Family and Consumer Sciences for Family Health & Wellness. “He is a valued team member,” said County Extension Director Heather Schaffer. “He serves as a mentor for interns and other FCS agents, and collaborates with colleagues in other program areas, including helping with 4-H summer camps.”





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### **Hometown Hero | Coleman Killinger**

An important skill for Extension agents is to keep an ear to the ground so they know about needs in their communities. That is one of the strengths of Coleman Killinger, Extension 4-H agent in Carteret County. "She has listened to those around her when they ask for support in programming," said County Extension Director Shawn Banks. It's how she became aware of the need for a leadership program, which led to Serving and Leading Together, aka the SALT Crew, for youth in grades 7-11. "Coleman took the initiative to work with county partners to overcome obstacles and implemented a much needed program for the youth of our county," Banks said. "At the end of 2022, the youth were excited to continue the program and asked if they could each invite a friend."



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### **Hometown Hero | Jenny Carleo**

When farmers in the South Central District need help with a grain crop, they'll likely come into contact with Jenny Carleo, an Extension area specialized agent based in Iredell County. Often it will be in the form of a personal visit. When a local producer wanted to do a research trial, Carleo helped with organization, monitoring, harvest, and data collection and statistical analysis to share with other farmers. If there is no direct contact, chances are they'll work with one of the many field agents she has trained or through her videos that are used to educate both agents and producers. "We are extremely fortunate to have Jenny," County Extension Director Nancy Keith said. "She always goes above and beyond. She is an awesome individual and I am happy to have her as a part of our staff in Iredell County."

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### **Hometown Hero | Doug Clement**

Cherokee County inaugurated a wildland fire committee after drought conditions sparked a series of fires in 2017. A subgroup is tasked with a Firewise program for communities and individual landowners. Doug Clement, director of Extension's Cherokee County Center, saw the need to expand the Firewise activities in the county, and developed partnerships to allow education opportunities for residents at risk of a wildfire event. In 2022, Clement and his staff took the training into the community with presentations for homeowners associations, by holding events at the county fair, art walks and fire stations, and through 23 one-on-one home visits.



# TRANSFERRING KNOWLEDGE... TRANSFORMING TOMORROW

While much of the world around us has changed, Extension's role in our state's prosperity has never wavered. Extension is a bridge between North Carolinians and our state's preeminent research university.

**With 101 local centers, more than 1,000 experts and a vast network of partnerships, Extension puts knowledge into action, delivering research-based solutions to local issues statewide.**

To continue fulfilling our land-grant commitments and meet the diverse needs of our communities, we must reflect on our past as we face the future. It starts with smart goals, and a practical plan to pursue them.

## Planning With Purpose

To chart a course for the future, we traveled the state to:

- > Talk with **more than 1,000 team members**
- > Meet **one-on-one with various stakeholders**
- > Collect **more than 9,000 survey responses** from program participants and partners

This comprehensive, stakeholder-driven planning process resulted in NC State Extension's 2030 Strategic Plan. This blueprint for the future embraces the shared values and aspirations reflected in the NC State and CALS plans, while outlining unique opportunities and objectives Extension must overcome to accomplish our land-grant mission.



***Moving forward, the NC State Extension strategic plan will help chart an ongoing course for individual initiatives within our university, as well as continued collaboration and innovation within our N.C. Cooperative Extension partnership.***

**4 STRATEGIC PRIORITIES**

**9 GOALS**

**41 KEY INITIATIVES**

**1 NC STATE EXTENSION**



Discover more about our strategic plan  
at [go.ncsu.edu/TransformingTomorrow](https://go.ncsu.edu/TransformingTomorrow).





From Murphy to Manteo, Extension experts meet people where they are, transforming science into everyday solutions that improve lives. It all starts with our people, who provide locally focused services in every county and the Eastern Band of Cherokee Indians.

Our local centers include **734 Extension professionals<sup>I</sup>** from NC State, while another **560 faculty and staff<sup>II</sup> on campus and across the state** directly support Extension's mission.

A broad and dedicated group of volunteers enhances Extension's impact. In 2022, **Extension volunteers** contributed more than **\$12 million worth of time<sup>III</sup>** in support of our programs.

### Extraordinary Experts

Extension experts are changemakers and community leaders, educators and mentors, friends and neighbors. They believe in science and service, and apply their skills to the greater good.

NC State was recognized as the best large employer in North Carolina by *Forbes*. And with 101 local centers across every county, Extension offers professional services and careers wherever you call home. Are you ready to make a difference?

<sup>I</sup> Includes 598 NC State-funded Extension employees and 136 county-funded personnel

<sup>II</sup> Reflects an improved process for calculating Extension's campus and statewide workforce

<sup>III</sup> Based on estimated value (\$29.95/hr.) of volunteer services in 2022 ([independentsector.org](https://independentsector.org))

**Become Part of the Pack**  
[go.ncsu.edu/ExtensionJobs](https://go.ncsu.edu/ExtensionJobs)



# NC STATE EXTENSION



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