

HELLO 4-H FAMILY,

Right now, we are in the middle of a global pandemic. COVID-19 has halted all face-to-face interactions, and it has resulted in popular state events like Citizenship North Carolina Focus and Congress to be held virtually. Though we would have all liked to be together in person, we cannot spend too much time thinking about the negative when there are better things to focus on. Gandhi once said, "In the midst of darkness, light persists," and North Carolina 4-H has truly been shining its light bright these last few months.

This summer, 4-H'ers across the state were given ample opportunities to meet and learn through virtual programming. Program topics varied from diversity and inclusion to STEM and even life skills. Coffee and Culture was a seven-week program that explored personal culture and other cultures while hitting topics like avoiding stereotypes. It also encouraged youth who were a part of the program to create an action plan to share what they learned in their community.

Beyond virtual programming, this pandemic has challenged youth and adults to find new ways to serve their communities. Each community in North Carolina has been affected differently during this time, and 4-H was very aware of that. 4-H agents, volunteers and youth used their talents and resources to help others. Many made masks and mask holders to pass out to healthcare officials and those in need; others started grocery shopping for their neighbors who are at risk. There are so many more ways that 4-H has served those in need, so thank you for making the best better.

All in all, with each challenge 4-H comes across, we always find a way to adapt and overcome. Thank you for being willing to learn something new with us and for always helping others.

Truly, Sydney Blair State 4-H Reporter

ABOUT 4-H

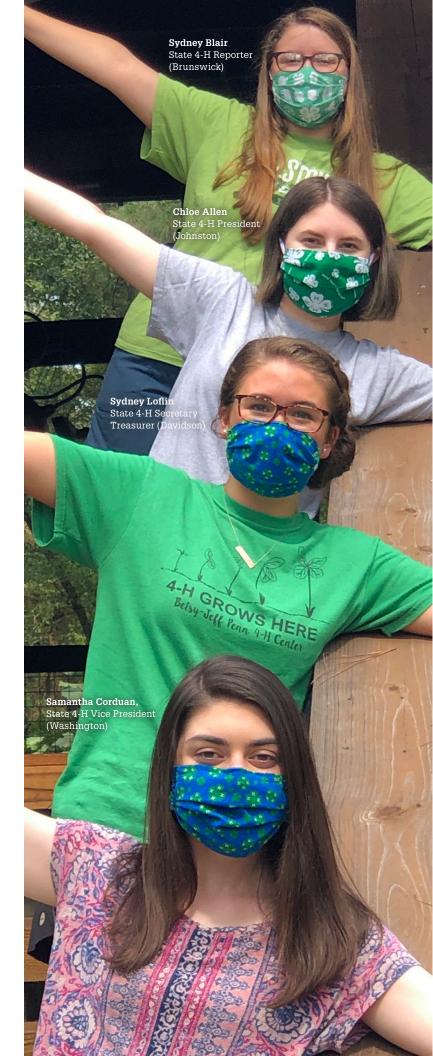
In North Carolina, 4-H is delivered by N.C. Cooperative Extension, a strategic partnership between NC State University, N.C. A&T State University, the U.S. Department of Agriculture's National Institute of Food and Agriculture (USDA-NIFA), and 101 local governments statewide.

ABOUT NC STATE EXTENSION

NC State Extension is the local and statewide outreach provider of North Carolina's preeminent research enterprise—NC State University. NC State Extension translates research-based knowledge in the areas of agriculture, food and nutrition, and 4-H youth development into everyday solutions that create economic, intellectual and societal prosperity for the state.

COVER PHOTO:

Landon Davis (front) and Naquez Cole (back) observe chicks as part of Julie Warner's second- grade 4-H embryology project.



COVER STORY:

EMBRYOLOGY—A 4-H CURRICULUM AND STATEWIDE TRADITION

By Julie Hayworth-Perman

On a Wednesday morning in March, just days before the novel coronavirus closed North Carolina schools, Julie Warner's second-grade class at East Rockingham Elementary School in Richmond County grabbed their pencils and paper and took turns crowding around a cardboard box and warming lamp. It was exactly 21 calendar days into Ms. Warner's 4-H embryology project—the day known as hatch day—as excited chatter competed with constant "peep peeps" in Warner's cheerful classroom."

"What is happening today?" I asked a young man, Kylar Wilson, as he carefully shaped letters on his notebook paper.

"We are getting to touch the chicks," he said.

"And what are you writing?" I asked.

"They feel soft and dry," he said while stroking a tiny chick. Suddenly, Kylar exclaimed with delight, "It pecked at me!"

These observations, a first exploration of scientific record keeping for these youngsters, are a small part of what kids learn to do through the 4-H curriculum that Warner uses in her class.

"They turn into chickens and then go outside," explained Naquez Cole, helping me to understand what happens in the incubator that has warmed Warner's countertop for the last three weeks. "I want to keep them at my house. I will play with them," he said.

Embryology teaches life cycle, provides experiential learning

Embryology has been a documented curriculum offered by 4-H agents with North Carolina Cooperative Extension's Richmond County Center for more than 25 years, though it likely dates back quite a bit beyond that. The curriculum is offered via multiple channels but has become a go-to course of study for many of the state's public and private schools.

"We have developed a lot of curriculum that aligns with national and state standards—the essential standards set by DPI (the Department of Public Instruction)," said Amy Chilcote, 4-H curriculum development specialist with NC State University. "4-H curricula can be used in clubs, schools, camps, special interest groups and after-school care. We are in about 80% of public schools as well as private, charter and homeschools."

What makes 4-H curricula special? To Chilcote, it is 4-H's ability to "move beyond knowledge gain to attain behavior change" through hands-on experiences. "We can take it to a higher level of learning," she explains. It is no coincidence that the 4-H motto is 'Learn by Doing."



Adrianna Crowley touches a chick that hatched overnight at East Rockingham Elementary School.



Extension 4-H agent Catherine Shelley shares her love of agriculture with students at East Rockingham Elementary School.

Schools and 4-H - a strong partnership

A 4-H curriculum, like embryology, is implemented through the cooperation of teachers, volunteers and 4-H agents working through 101 local North Carolina Cooperative Extension centers statewide. In Richmond County, that agent is Catherine Shelley. A former elementary school teacher and farm enthusiast, she saw an opportunity to bring together all of her experiences when she joined 4-H two years ago.

"Richmond County has done an outstanding job (with 4-H programming) for many years... In the past decade, this 4-H curriculum has been in every single school," said Shelley. And that benefits not only students but the 4-H program as a whole. The in-school curriculum serves as an opportunity to introduce the program to many children who may otherwise not have experienced 4-H. In fact, none of Warner's second-graders are current 4-H members.

While 4-H curricula are developed at the state level, it is up to individual agents, like Shelley, to train teachers and volunteers in implementing the curricula while directly or indirectly supporting those efforts.

Speaking specifically of her embryology program, Shelley said she offered training for teachers countywide, which gave her a feeling for teacher comfort levels and enthusiasm. "The more I interact with teachers and the more I check in and reassure them, the more comfortable they are with it. Kids benefit the most when teachers are all in," she said.

From there, Shelley determines the level of support needed in individual classrooms. Speaking of Warner, Shelley said, "This is just her thing. Julie Warner grew up on a farm... She helps kids understand the importance of agriculture in North Carolina. It is just one of the things she is very excited about."

Asked what she feels is the most important part of her program, Shelley said she likes watching children learn and do something new. "Having 4-H curriculum in the walls of the school gets you out of that textbook math and reading mentality – that structure that schools often lean to. When teaching these basic steps of research we can show them how to 'collect and see why.'"

Crossing curricular silos

While Warner was not a 4-H'er herself, as the oldest of six children, she has experienced 4-H through her five 4-H'er brothers and sisters growing up back home in Pennsylvania. "My whole family was very active in 4-H. It has helped to shape them (her siblings) as individuals," she explained.

Back in her second-grade classroom, the self-described "science nerd" coaches her students to observe the chicks. From comparing the freshly hatched wet chicks, to the fluffy yellow chicks that hatched overnight, to describing color, sound, texture and activity, Warner's kids are delighting in an English language arts assignment to write descriptive sentences while observing the hatchlings.

One student's observation, "Their feet tickle," drew chuckles from adult observers.

"The biggest benefit of embryology is watching kids experience growing life. It is probably the coolest thing for them and for me."

Through embryology, Warner is able to meet DPI's life cycle standards. "We can feel it, touch it, see it—it (embryology) is the perfect fit to the curriculum for second grade," she explained.

Through the three weeks of the program, Warner worked with students to dissect fertilized and unfertilized eggs, to learn the parts of the egg in its different stages, to teach measurement in both inches and centimeters, and to appropriately draw comparisons with other kinds of eggs.



Gavin Blakley, Jonathan Chavis and Curtis Ingram (left to right) observe their classroom chicks by the light of a warming lamp.



Landon Davis closely examines his chicks while writing descriptive sentences as part of his second-grade embryology project.

"I am very open to curricula that she (Shelley) would recommend. It is hands on and fun for them," she said, before adding, "and fun for me!"

Beyond the science

After visiting Warner's class, I was welcomed into Andre Ellerbee's exceptional children's class, where chicks named Pickles and Candy Cane delighted students that, in addition to learning some science, put some different skills to work.

"The science part of this program is great, but the social part is even better for our kids," he said. Ellerbee's students, some with behavioral challenges, have been learning to nurture and care for the eggs, and now the chicks.

"They are learning to treat them (the chicks) with kid gloves to understand how fragile they are," he said. "The kids are really into it."

Pandemic doesn't stop 4-H embryology

Warner and Ellerbee's classes were lucky. Hatch day happened just in time. But hundreds of unhatched eggs in incubators remained, briefly, in classrooms emptied by the closure of schools. That's when 4-H agents stepped in to take the learning online and the incubators into Extension offices across the state.

Courtney Stanley, 4-H Extension agent in Johnston County, had 33 classes conducting the 4-H embryology curriculum. When

she learned they had to shut down the program because of the coronavirus pandemic, she took steps to make sure the show would go on.

But she didn't know that the program itself would go viral.

After collecting the incubators and taking them to Extension's Johnston County Center, Stanley set out to keep the curriculum alive and, literally, online.

"So many kids are visual learners, and they were not going to be getting that being away from the classroom," she said. "Facebook Live gives them that visual learning opportunity."

With the help of an eager assistant named Daisy, the daughter of another Extension agent in Stanley's office, Stanley created a Facebook Live, which allowed her to teach the curriculum and answer questions. This also helped her to virtually show students the incubation and hatching process.

As of March 27, Stanley's Facebook Live had reached 90,000 individuals and been shared nearly 500 times.

Stanley attributed the success of her live stream to the teachers who promoted it, along with Extension agents and 4-H volunteers.

"Even as an adult I enjoy it," Stanley said of the embryology curriculum. "It is life – learning about life. It is great regardless if you are a child or an adult." $_{\rm n}$



Head to CLEARER THINKING

The coronavirus pandemic of 2020 stopped many organizations in their tracks, but not NC 4-H. Less than one-week after the cessation of in-person 4-H meetings, agents and volunteers across the state began presenting online content to keep 4-H'ers and families connected, involved and thinking clearly through the shutdown.

NC 4-H Daily Spark, the name of the online program, provided daily hands-on experiences for youth and families during the state's stay-at-home order. These activities were developed by NC 4-H staff and presented on the NC 4-H Facebook page.

The NC 4-H Daily Spark ran from the middle of March until the first of June and brought topics from STEM, to healthy living, leadership, public speaking, environmental resources and much more to more than 50,000 viewers.

Hands to larger service

A 57,000-acre tract of land in western North Carolina is home to many of the 15,000 enrolled members of the Eastern Band of the Cherokee Indian (EBCI). Known as the Qualla Boundary, this land trust is home to a unique 4-H program run by Extension Agent Sally Dixon.

Dixon's 4-H program covers many of the activities that 4-H is known for — citizenship, sewing, STEM activities, gardening, and more. Nearly every lesson incorporates some part of Cherokee culture. And her 4-H'ers, in turn, take these cultural lessons out to 4-H statewide, serving their peers in a very special way.



Members of the 4-H Cultural Presentation Team, with volunteer Chi Shipman, demonstrate a sing-a-long song for counting from 1 to 10 in the Cherokee language.

The cultural significance celebrated by 4-H in the EBCI territory is perhaps best illustrated by Dixon's signature program, the Cultural Presentation team. "Our youth have led workshops at (state) 4-H Congress and other places teaching non-native youth audiences about Cherokee culture," she said. Currently, 11 youth participate on this team.

The biggest reward? "I believe youth across the West District are more culturally sensitive after interacting with our kids," she said. "We see youth outside of our program supporting our youth, pointing out why some questions are offensive and defending their peers." Serving others by teaching cultural appreciation is how EBCI 4-H'ers learn by doing. n

Heart to greater LOYALTY

By the Happy Home 4-H Club

The Happy Home 4-H Club has offered years of loyal service to Rockingham County. The club officially started in 1938, but its roots run even deeper. Prior to 1938, club leader James Wesley "Buddy" Dickerson single-handedly obtained sponsors for a County Corn Club. Dickerson took calves and club members to country, district, state and regional shows. His wife, Thelma, led the girls club with canning



One family, five state electric champions. Pictured (1 to r): John Richard Norwood, Lane Blankenship, Lorrie Norwood Ellington, Leola Dickerson Meador, Frank Meador, Mary Jo Meador Press, Roy Blankenship, Nancy Meador Norwood and Duke Energy Representative Wayne Huddleston.

and sewing. The club's legacy members sold raffle tickets in the 1960's to help start the Betsy-Jeff Penn 4-H center and today several members serve on the Center's Advisory Board.

Throughout the years the club has evolved and reflected the interest of its members. Activities have ranged from cooking, animal science, safety and electricity, producing both state and national project winners. Many of its members have entered careers based on their 4-H projects. This club has produced district and state officers as well as many Honor Club members and members of the 4-H Hall of fame.

The "heart" of 4-H continues to grow in Rockingham County. Presently the Happy Home 4-H Club is heavily involved with Rolling Ridge Riding, assisting adaptive riders and involving these members in the 4-H program. It brings joy to see the riders and volunteers helping change the lives of children with disabilities. The Happy Home 4-H Club has inspired a lifetime of service and continues to be the heart of the community.

Health to BETTER LIVING

By Angela Brisson, Extension Assistant, 4-H Camping Program

The days when kids would spend hours every day exploring streams, climbing trees and playing in the dirt are nearly gone, and that has some profound consequences on the health and well-being of our youth.

Fortunately, NC State Extension's 4-H program has the answer: a system of camps, accredited by the American Camping Association, that help young people unplug and reconnect even during 2020's precautionary camp closures. Did you know that:

- > Camp promotes physical health Through activities like swimming and canoeing, youth learn how to enjoy physical activity.
- > Camp teaches responsibility For many, camp is a first experience cleaning a cabin or setting the table. It may also be the first time campers work with others to overcome challenges.
- > Camp builds an affinity for nature Far from the digital screens at home, campers are fully immersed in the natural world.
- > Camp teaches independence Children are encouraged to push their boundaries, step out of their comfort zones and grow the self-confidence necessary to become independent.
- > Camp cultivates a sense of belonging Camp gives young people the opportunity to be themselves while appreciating others with values, attitudes and abilities different from their own.
- > Camp endures in a virtual world NC 4-H Camps created a successful virtual camping experience in 2020. Campers made lifetime memories by connecting online, finding nature in our own backyards, and joining hands with our families around the campfire.

Few tools are as powerful as the camp experience to positively impact the health and well-being of young people. It's our mission in 4-H to make sure all children have access to this unique and powerful learning experience. Learn more and find out how you can help at **www.nc4hcamps.org.** n



4-H youth enjoy all that the Eastern 4-H Center has to offer during summer camp.

A DAY IN THE LIFE:

LARRY WOOTEN AND FARM BUREAU, FRIENDS OF NC 4-H AND YOUTH LEADERS

By NC State Extension Staff

North Carolina 4-H and N.C. Cooperative Extension have long celebrated a close relationship with the North Carolina Farm Bureau—a relationship that has, perhaps, been best personified by the personal dedication of recently retired Farm Bureau president Larry Wooten.

"The secret to the success of agriculture and youth development programs in our state is the partnerships between farm organizations, commodity groups and state agencies like the NCDA&CS and N.C. Cooperative Extension. These partnerships improve leadership development through programs like 4-H and FFA (Future Farmers of America). We are supporters



Larry Wooten, former president, N.C. Farm Bureau

today because we were 4-H'ers ourselves," Wooten said of the relationship during a March interview.

"Both 4-H and Farm Bureau are local, and both are involved in the leadership development of our youth," he said. "4-H is where I first began to hear the word 'leadership.'"

A strong supporter of rural North Carolina through his former

position with the Farm Bureau, as well as his work with 4-H, Wooten sees a bright future if rural communities can identify ways to bring young people "back home" to help drive economic development and a good quality of life.

"Thriving rural communities need the energy of young people. An investment in youth now is an investment in the future of our state. Someone did it for me, I have done it for others and will continue to do it, but it will be the responsibility of the next generation to keep it going," he said.

4-H meant a lot to Wooten throughout his childhood in rural Pender County. He warmly recalled the most important days in his monthly childhood calendar – one, the night 4-H met; the other, the day the bookmobile pulled up.

"I support 4-H because I know what it did for me as a young man, and for tens of thousands of other young people," he said, citing a number of agricultural leaders across the state, like Milo Lewis at the Farm Bureau who served as 2008-2009 NC 4-H state vice president.

While there is tremendous pride in Wooten's voice as he talks about Farm Bureau's support of 4-H, he is quick and deliberate to recognize 4-H volunteers. "They are the true stars in the crown," Wooten said. "I may forget a lot of people in my life as I look back, but you never forget your 4-H leader."

"I may forget a lot of people in my life as I look back, but you never forget your 4-H leader."

Larry Wooter

"Seeing the work of the local 4-H clubs—the fair projects, the local service projects—I am humbled and thankful for all of those adult volunteer leaders who help guide young people," he said.

Among his proudest accomplishments as an avid 4-H supporter have been co-chairing 4-H annual fundraising efforts and meeting with the state 4-H leadership teams over the years.

Asked if he plans to continue his work for 4-H, Wooten enthusiastically replied, "If I am breathing, I will!" n



Larry Wooten has served as a role model and friend to N.C. 4-H'ers for many years.



Jordan Mitchem, a 4-H'er from Lincoln County, shows her family's Hereford cows in a 4-H livestock show.

BEHIND THE SCENES:

PRESENTATION DEVELOPMENT WITH JORDAN MITCHEM

By Jordan Mitchem

Since I can remember, livestock, farming and 4-H has been part of my life. Before I was born, my sister, Regan, started in 4-H showing lambs and livestock judging. From the time I could walk, I was in the pen with the sheep, trying to be like my big sister.

I started showing sheep when I was 4 years old. When I was 5, my sister talked my daddy into buying our first Hereford heifer. We not only showed this heifer but started our own herd and now raise Herefords. I love our livestock and love learning everything about them. Our family spends all of our free time at the barn with the animals.

I help at the barn with all the preventive care including tagging, vaccinating and parasite treatment. I also help with the breeding, calving and occasional treatment of sick animals. I don't just watch; I get right in and, as my mom says, "get my hands dirty." We have many cousins who are frequently at our barn on the weekends to see our cattle. I really enjoy teaching the adults and kids about our animals. It's fun to explain to them what we are doing and why we are doing it.

My mother and father both were in 4-H, and they convinced me to give a 4-H presentation about my livestock project. I learned that a presentation is just a prepared and planned out way to tell others about the things we do on the farm. It's a practiced way to tell other people what I had been showing my cousins all along.

To do a presentation, I first had to pick a topic that I was very familiar with that would be easy to tell others about. My first presentation was on tattooing cattle. I had helped tattoo our calves, so I knew the process. In my presentation, I discussed the reasons to tattoo, showed the equipment needed and demonstrated the process on an ear my mom and I made from clay and cow hair.

I did very well with my presentation and won county, district and state competitions. I learned that I really like talking in front of people as long as I'm passionate about the topic.

Being in 4-H has allowed me to take part in the livestock project and learn skills that will last me a lifetime. More importantly, it has allowed me to make friends from across the state and country who have a similar interest in Hereford cattle. 4-H is a core part of my family and me.

Since my first presentation, I have gone on to do other presentations on things related to my livestock, including quiet weaners. Additionally, I have given versions of my 4-H presentations on a national level at the Junior National Hereford Expo. I placed third in the nation one year.



CLUB FOCUS:

NASH COUNTY 4-H SEWS, PROVIDES PPE TO HELP FIGHT COVID-19

By Kevin Moye

Difficult times have become universal for Americans as we all come together in the fight against COVID-19. One of the more difficult challenges we face is gathering enough personal protective equipment for at-risk communities.

In response to these challenging times, people across the state — including Nash County 4-H'ers — have banded together in collaborative efforts to fight the novel coronavirus.

The opportunity for 4-H'ers to aid in the fight against the pandemic arose when an employee of a local JOANN store approached Jane Tyson, the volunteer leader of Nash County's Sew What? 4-H Club. The employee offered Tyson the fabric, elastic and threads necessary for her and her club members to make masks on a larger scale. Tyson knew that her advanced sewing group would be up to the task.

"The ones that are helping me are ones that have been in the club for quite a few years, and they are my better seamstresses," Tyson said.

Megan Garciga, a high school student, was one of those seamstresses. She was honored to be a part of an initiative that could potentially help save lives while also allowing her to participate in 4-H activities once again.

"There was a learning curve at first," Garciga said. "Usually, when I'm learning new projects, I either have the internet or I watch Miss Jane right there to help answer questions or just

show me visual guides. With this, I was kind of like, 'I think I know how to do this.' I kind of winged it at first, and it did not turn out great. Jane and I were kind of going back and forth over text. That's how I corrected my mistakes and got it right. That was very different for me because I'm very much a visual learner.

"Doing it now, it's so easy. Your hands just kind of memorize the different steps," Garciga continued. "I feel like I've gotten it down pretty good."

The Nash County 4-H members are not alone in their efforts to help flatten the curve. The NC State-affiliated North Carolina Extension & Community Association has also collaborated with at-risk communities to get them the protection they need.

The North Carolina ECA has been determining the amount of resources counties need and distributing supplies.

Additionally, the North Carolina ECA website page has been an invaluable source for COVID-19 information.

These efforts to bring personal protective equipment to more people in North Carolina are having tangible impacts in communities across the state. The masks made by the Nash County 4-H members are currently being used in the Spring Arbor Senior Living Community in Rocky Mount and the Nash General Hospital.

Garciga encourages others to get involved in helping their communities, especially those that are at-risk, during this challenging time. Garciga and her fellow 4-H members are just one example of the many ways in which people can help aid their communities.

Consider "making masks or donating resources," Garciga suggested. "I know some people have been making hospital gowns. Figure out what you can do to help and do it." n

Article courtesy of NC State College of Agriculture and Life Sciences

GIVING SPOTLIGHT:

4-H PRESENTATION COMPETITIONS BUILD **FUTURE LEADERS**

By Dr. Shannon McCollum, Extension Associate, Youth Development Specialist

4-H presentations have, for many years, been a cornerstone of the 4-H program, serving as one of the organization's most beneficial and rewarding experiences for youth. Through presentation, 4-H'ers gain self-confidence in public speaking, develop a positive self-concept and poise, learn to express ideas clearly and respond spontaneously to questions, and gain subject-matter knowledge. Many 4-H alumni credit the program as having given them an edge in their college and professional careers.



Jordan Mitchem, far right, won county, district and state with her presentation on tattooing calves.

This year, North Carolina 4-H had to completely rethink how the presentation program could meet its main goal of teaching those public speaking life skills. With so many summer events for youth cancelled, 4-H leadership felt that providing the presentation competition was more important than ever.

The pandemic created the opportunity to take the presentations online, and staff at NC 4-H quickly developed a virtual program that allowed youth to record and submit video presentations in each of the original categories. 4-H'ers embraced the opportunity and, despite limitations in at-home resources like internet and equipment, 492 district 4-H youth across North Carolina competed in 4-H presentations on the district level. The winners moved on to state competition. 315 4-H'ers competed for state gold, silver and bronze awards.

When you make a contribution to 4-H Awards and Presentations, you provide the opportunities youth need to make their personal best even better. By learning these skills and others, 4-H youth position themselves for future leadership roles, giving voice to 4-H values and ideals in every part of society. Won't you lend a hand? n



Dr. Thearon McKinney

4-H TRAILBLAZER HONORED

By Dee Shore

North Carolina's Thearon McKinney was among 16 people nationwide inducted into the National 4-H Hall of Fame during a special ceremony held Friday Oct. 2 at the National 4-H Youth Conference Center in Chevy Chase, Maryland. The laureates are selected because of their significant contributions to 4-H.

He teamed with other specialists to introduce the Teens Reaching Youth curriculum delivery system into the mainstream of 4-H nationally, and in conjunction with the state High School Athletic Association, he led the highly successful "Peers Empowering Peers" program to connect student athletes as peer leaders in delivering educational programs related to key issues

McKinney's original position with NC State was the first in the

development volunteers. Under his leadership, tens of thousands

of volunteers were trained and the North Carolina 4-H Volunteers

Association was formed. The association continues today as a

self-sustaining professional development organization.

nation to focus full-time on advancing the work of 4-H youth

such as bullying, substance abuse prevention, teen pregnancy prevention, and smoking cessation.

McKinney served NC State University's 4-H Youth Development Program for 35 years. He came to the university in 1977 to guide training programs for 4-H volunteers, and he retired in 2012 as professor and associate state 4-H program

leader. For several years, he served as interim state 4-H leader.

explained, "These individuals have touched the lives of many

people, from 4-H staff and colleagues to thousands of 4-H

As Jeannette Rea Keywood, chair of the Hall of Fame,

volunteers and members throughout the nation."

Later in his career, he became a national leader as one of the first full-time state 4-H marketing specialists, celebrating 4-H's impact on the lives of young people nationwide. n

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