

JARED WESLEY HARRELL

Associate Area Extension Agent, Agriculture - Livestock

Title Sought: Full Agent

INTRODUCTION:

My name is Jared Wesley Harrell. I serve as the Area Extension Agent, in Northeastern North Carolina, for Perquimans, Chowan, and Gates Counties with program responsibilities in livestock (85%), forage management (10%) and field crop (5%). I received my Master's Degree in Agriculture and Extension Education in 2013 and my Associate Title Promotion in 2015. I am now seeking my Title Promotion for Full Agent.

CAREER GOALS:

I started working in this position in June 2010, but my passion for Extension dates back to my years as a 4-Her in Area Livestock Show and Judging Teams. I watched the extension agents as a teenager and saw a career path that spoke to my heart. I knew when the position was offered to me that I wanted to become a reliable community resource for the people; to continue promoting the successful programs of the past; and to look for unique ways of marketing innovative Extension programs to a new generation of farm families.

COOPERATIVE EXTENSION PROGRAMS

COUNTY DEMOGRAPHICS:

Perquimans, Chowan, and Gates are rural counties located in the Northeast District.



Based on the 2010 U.S. Census, the combined population in the three-county region is 40,432. The major employers are the school system, county government, North Carolina Department of Transportation and agriculture.

Agriculture and forestry have long been important components of the communities of these counties.

Perquimans has 185 farms cultivating 80,116 acres of land. Perquimans County ranks 9th in soybean production, 17th in corn production, 22nd in broilers, and 40th in all livestock and poultry.

Chowan County has 141 farms and ranks 13th in cotton production, 9th in peanuts, 37th in wheat production, 44th in broiler production and 65th overall in all livestock and poultry receipts.

Gates County has 182 farms; 348 acres average farm size; and 58.3 average farmers age. Most recent 2010 stats indicated delivered value of timber was \$15,271,215. Major cash crops include cotton, soybeans, wheat, peanuts, and corn for grain.

The 2016 North Carolina Department of Agriculture Reports, Crops have generated \$42,885,619 in cash receipts in Perquimans; \$35,911,977 in Chowan; and \$23,951,061 in Gates. Livestock, Dairy, and Poultry have generated \$48,980,801 in cash receipts for Perquimans; \$12,656,512 in Chowan, and \$40,967,680 in Gates; making agricultural and livestock production a multi-million dollar business industry that drives the local economy.

In addition to the traditional agricultural community, there is an influx of curious consumers that transplant to the area and long for a rural atmosphere and an opportunity to experiment with farming. These newcomers are seeking information on how to start a farm and make it profitable.

PROGRAM PLANNING – Needs Assessment

The most valuable part of all Extension program planning will always be the people that make up the commissioner's boards, the agricultural advisory committees, the dedicated Extension volunteers, and the strong integrated relationships with Extension researchers and commodity specialists on NC State Campus. The input of each of these groups is the beginning of the needs assessment process that is done in each county to determine where Extension can best meet the needs of its people. Using surveys, environmental scan techniques, windshield surveys, group conversations, and statistical data, the key leaders agreed that two objectives need targeting:

1. Profitable and Sustainable Agriculture Objective is for all plant, animal, and food systems to become more profitable and sustainable based on the help of the Extension Service.

2. School to Career Objective is to improve youth and adult level of education and increase their skills that enable them to be competitive for society and the agricultural workforce.

Profitable and Sustainable Agriculture – Program Planning

The county advisory council meets on a regular basis to find out what avenues they want to see Extension take in the local communities. A needs assessment was conducted by speaking to local cattlemen, pork producers, horse owners, goat hobbyist and general livestock groups as well as the NCSU specialists and other county agents. As a result, **two livestock advisory committees were formed and meet twice per year as a group, and informally throughout the year as well.** The committees give feedback and offer opinions on new programs. They also give insight on ways to make current programs stronger. Both advisory committees are made up of a wide demographic of people in the three-county area.

With the continuing high expenses, producers must change some aspects in their operation to be more efficient in their business models. Some producers will need to scale back their operation to make a profit and others, based on business models, will have to increase their operation to succeed in the future. **A major way that all producers can improve efficiency is to implement good animal husbandry practices, and best management practices to efficiently utilize resources and raise their animals in a safe and healthy way.**

Profitable and Sustainable Agriculture – Program Design

Program Goals Include:

- Bring new clientele to the Extension Service
- Create innovative programs that would make a lasting impression
- Educate beginning farmers
- Continue to provide quality research-based information to the public
- Transition older farmers to new techniques and technology

Program Objectives Include:

- Provide information for cattle producers to remain profitable
- Decrease production and maintenance costs
- Increase price per pound producers receive
- Decrease health issues
- Increase overall knowledge of production in each species
- Conduct on farms variety tests to see genetic variation between companies

- Decrease worm resistance by providing FAMCHA Trainings
- Determine which varieties of forages perform best on clay/sandy soil
- Educate Producers on how to do Fecal Egg Counts
- Provide BQA (Beef Quality Assurance) Certification Training
- Provide PQA (Pork Quality Assurance) Certification Training
- Provide YQCA (Youth Quality Care of Animals) Certification Training
- Provide Equine Clinics to offer savings for vaccinations
- Relay information from campus specialists via newsletters
- Provide training for waste credit certification hours
- Market new Extension technology to older generation farmers

Profitable and Sustainable Agriculture - Measures of Progress

Cattle producers and goat producers have different growing and marketing operations, therefore, programs are developed based on individual needs. The Extension Service networks with other agencies to provide regional programs, and pool resources together to show greater impact. Programs are implemented using a combination of production meetings, local association meetings, on-farm visits, workshops, phone calls, emails, Facebook, and office visits. Written communication including newsletters and bulletin updates continue to be sent via the mailing lists as a way of connecting with producers that do not have computer access.

Perquimans Extension Livestock producers are registered in the phonevite contact system that sends out a recorded message on personal cell phones or home phones. This works great for producers that do not open their mail frequently and has proven to be an essential marketing strategy.

In 2016, Perquimans Extension Service implemented an email listserve to save money and go green. Clients that use email as their form of contact, receive newsletters and updated information quicker than mail. For producers that do not have email accounts, mailings will continue.

Profitable and Sustainable Agriculture - Targeted Outcome

Knowledge- Producers will gain vital research-based information to help them make good management decisions.

Aspirations-Producers will aspire to produce and raise better livestock while increasing their net income.

Skills- Producers will use skills they learned from extension and utilize these skills on their farm, to improve overall farm management.

Attitude-Producers will take pride in their farm production practice and realize they can help new farmers use best management practices.

Profitable and Sustainable Agriculture - Evaluation Strategies

For each program an evaluation is used at the end of the meeting. This allows an opportunity to ask several questions to determine the knowledge gained, the impact the program made and the dollar amount that producers will

gain or save from attending the program. In several of the meetings, pre and post evaluations are used to determine what the knowledge was before the training and what the knowledge is at the conclusion of the training. To see if the outcomes and impacts are achieved, farm visits are set up with producers several months after the meetings to determine if the knowledge gained from the training was implemented and put to use. This shows the true measure and impact of the training. Each of the evaluations are either done by a template designed by Dr. Jay Jayaratne using the extension recommended format, or a clicker based evaluation where each person in attendance receives a clicker and they have 1 of 4 choices they can select and the evaluation results are then reported by the computer software. The third evaluation tool that is used is one-on-one verbal information from the producers in attendance.

Profitable and Sustainable Agriculture - Integration

Livestock and forage programs are more successful when the entire Extension Staff is involved. The County Extension Director/Crop Agent/Family & Consumer Science Agent and 4-H Agent assist with publicity and are able to direct calls and inform the community of resources and workshops that are available. The Food, Farm, and 4-H Initiatives involve the total Extension Programming. Farm Safety is one example of the topic that is shared across all staff members. EX: Animal Farm Safety – Food and Nutrition Safety – Pesticide Safety and 4-H-Youth and Career Personal Safety.

Profitable and Sustainable Agriculture – Outputs/Activities

Beef Production:

Traditionally, the **Area Livestock Agent serves as the advisor to the local cattle association (Coastal Carolina Cattlemen’s Association)**. Quarterly meetings are held focusing on production management in order to increase the knowledge of cattle farming. Each of these meetings, averaged 80 percent of all cattle producers in the area in attendance. The Association continues to grow on an average of 3 new members per year.

Minerals are an essential part of a cow’s rumen digestion system. Without them, cattle cannot perform to their maximum and can cause health concerns for them and newborn calves. **The Coastal Carolina Cattlemen’s Association looks to the Extension Service to help formulate minerals that are specifically designed for our region, as our soils are deficient in certain minerals for our cattle.** The Cattlemen’s Association is able to order in bulk through the Extension Service and receives at least a \$7.00 discount per bag. Each year they purchase an average of 35,000 lbs. of minerals. After being advised by the cattlemen, a new mineral was formulated for the summer to help with the control of the fly population and to decrease the risk of anaplasmosis.

As part of the Coastal Carolina Cattlemen’s Association, **area feeder calf sales occurred between 2010-2015 and were held 3 to 4 times per year with an average of 400 calves total each year.** Producers followed a specific

protocol for weaning, vaccinations, being bunk broke and weight limit. By being in the association and by following these protocols producers received a premium for their cattle.

From 2016-present the Area Livestock Agent assists producers to set up their own truck load lots sales, as well as selling some of their cattle to the stockyard and receiving 5 to 8 cent premium by grouping and following a specific weaning/vaccination protocol.

The Northeast Area Beef Conference is held each year at the Tidewater Research Station or the Edgecombe Livestock Arena for 22 counties in the Northeast District. Previously, this conference began as a half-day event based on power point speakers. In response to the evaluations, the conference expanded to a full day to offer hands-on demonstrations in the afternoon. This conference has turned into a major integral part of the three county beef program. On average there are over 50 producers that attend this conference with 25 of the producers coming from the Perquimans, Chowan and Gates areas.

To insure consumers that beef is being fed and raised according to USDA standards and in a healthy safe environment, the North Carolina Cattlemen's Association provides all producers the opportunity to become BQA (Beef Quality Assurance) trained so that consumers and wholesale buyers know that their farm production is being safe and efficient. **As the Livestock Agent and local advisor for this training program, cattle producers in the area are trained to utilize Beef Quality Assurance. Since 2010, 76 producers have received North Carolina BQA certification.**

The Cattle Landfill Grazing Project was implemented for Perquimans, Chowan and Gates Counties. This program is the first ever in the state of North Carolina and is a test pilot program for DENR (Department of Environmental and Natural Resources). The program is based on the PCG (Perquimans, Chowan, and Gates Counties) Landfill. **Each year the three counties spend over \$10,000 dollars to mow the cap that covers the unused landfill and the county tried to find ways to save those taxpayers dollars.** Under the leadership of the Extension Area Livestock Agent, a permit was written and approved by DENR. Perquimans Chowan and Gates Landfill Board agreed to have a leasing contract with a cattle farmer to let them graze their cattle on the site. **By implementing this program, the counties save over \$10,000.00 per year and the cattle producer saves over \$2,000.00 per year in rent.** This program includes specialists from NC State, Soil and Water, and DENR for on-site visits and workshops for producers. In 2017-18 the Pasquotank County Landfill and Hertford County Landfill have plans to implement this cost saving program to save additional tax dollars.

Goat Production:

Perquimans, Chowan and Gates Counties have a tremendous amount of goats, and as more "homesteader" type of families move to the area the goat interest continues to grow. With the increase in goat owners, a needs

assessment was conducted and found that the three-county area needed a goat program. Producers sell goats for livestock shows in Eastern North Carolina and Southeastern Virginia; and they sell them for production at the stockyard; as well as raise them for meat for personal consumption. As with any species, but especially with goats, there is a need to be informed about diseases, worming and management issues. Each year specialists are brought in from North Carolina State University and North Carolina A&T University to meet the needs of the producers. Local large animal veterinarians and other livestock Extension agents are also included in these trainings as a networking strategy to teach a variety of courses.

A **Small Scale Niche Goat Workshop** for all 22 counties in the district focuses on clients that want to raise their animals for local consumers, by providing the producer with the latest rules and regulations, meat quality information, raising and growing their business, etc.

Pork Production:

Every year producers are required to obtain waste credit training to stay in production. **The Northeast Area Pork Conference, organized by the Extension Service offers at least 3 credit hours of continuing waste credits** to meet this need. Each year, an average of 50 producers attend.

Pork Quality Assurance (PQA) trainings are held each year. This program is essential for producers, as most slaughter plants and stockyards are requiring producers to be certified to sell their hogs. By being a trainer of PQA, Extension Livestock Agents assist with doing site assessments for hog producers. Site Assessments are a critical component to being certified in PQA. Based upon slaughter plants requirements, producers are not allowed to deliver hogs to plants unless they have a site assessment card. **All youth that show a hog in the North Carolina State fair are required to have the Youth PQA.**

Forage Production:

Nutrition is one of the biggest concerns when raising any type of livestock including horses. Owners try to put more animals on a block of land, which requires extensive forage management. Producers and horse owners are uncertain of which variety of grass or seed mixtures to plant for their own unique farm due to each seed company having multiple grasses to sell. **This concern prompted a forage program in Perquimans, Chowan and Gates Counties.** This program is implemented by having on-farm variety test trials for summer and winter plots.

Livestock agents in the Northeast host **the Eastern North Carolina Hay Day every other year as well as a Pasture Forage Management Field Day** that is held on rotating years from the Hay Day. Producers learn and see the latest equipment at work, gain knowledge on the latest herbicides, drill calibration and forage management. On average over 40 producers attend these regional programs.

Horse Production:

There are several diseases that horses need to be vaccinated for every six months as well as a coggins documentation that is required for horses to travel. With the local large animal veterinarian being over 75 miles away and the cost of gas increasing, the advisory council recommends equine clinics to promote healthy horses and cost savings for owners. The equine clinics are implemented at a central location and the veterinarian charges less and does not charge a farm call fee.

Crop Production:

Local ag and livestock agents from 6 counties work together as a team known as the Northeast Ag Expo Team to conduct field work, research, summer and winter field days. The overall goal is to provide unbiased researched-based field work to farmers. The Northeast Ag Expo created the **Agri-Pride Simulator trailer** that is taken around North Carolina to educate the public about agriculture. **Each year this Ag-Pride Simulator travels to the state capital to promote ag awareness with our state elected officials.**

Profitable and Sustainable Agriculture - Teaching Methods

For the beef program, the main teaching methods include on-site farm in the area and surrounding counties, educational tours, presentation style lectures, hands on demonstrations, specialist's meetings, as well as cattle sales.

For the goat program, the educational methods include on-farm hands on demonstrations, night meetings based around a specialist and a meal, and area weekend workshops.

The pork program consists of daylong trainings that are power point and lecture based with specialists and private industry speaking. The program also consists of several 3 hour PQA (Pork Quality Assurance) trainings that are lecture based throughout the year.

The forage program consists of several full day conferences that have on-farm demonstrations of forage equipment and chemicals, and specialists and private industry personnel as speakers. This program has variety trial demonstrations for hay growers, goat producers, horse owners, and beef producers. Forage trials happen throughout the year based on the growing season.

The horse program consists of clinics that are during the day and are hands-on with the local large animal veterinarian performing the tasks.

The crop program consists of on-farm demos, expos, field site visits, and power point trainings.

Total hours of education delivered:

Beef Program Hours:	
Cattle Association-	60 hours per year
Feeder Calf Sales-(2010-15)	20 hours per year
Truckload Sales/Grouping (2017-)	6 hours per year
Northeast Area Beef Conference-	8 hours per year
Goat Program Hours:	
2 meetings per year, 4 hours each -	8 hours per year
Pork Program Hours:	
Northeast Area Pork Conference-	8 hours per year
Waste Management Trainings-	12 hours per year
Pork Quality Assurance Trainings-	30 hours per year
Site Inspection Trainings-	6 hours per year
Forage Program Hours:	
Production meetings with specialists-	45 hours per year
Eastern North Carolina Hay Day and Fall Forage Field Day-	8 hours per year

Profitable and Sustainable Agriculture - Societal Benefits

Farmers and youth are continuing to spread the word and are bringing new groups to the Extension offices. Producers are gaining knowledge, implementing new ideas, reducing farm expenses, increasing profit, trying new products, using new technology and managing their farm with the future in mind. The goal will be to continue to market Extension in the communities so that we can have a lasting impression in the future.

Pasture Forage Management Day-	8 hours per year
Variety Trials-	20 hours per year
Equine Clinic-	20 hours per year
Crop Programs-	30 hours per year

Profitable and Sustainable Agriculture - Target Audiences:

Target audiences were reached by first seeking the advisory council's leadership about these programs. Audiences were called individually to invite them to come to the programs, face-to-face invitations, group newsletter meetings, Facebook invitations, and website postings. The targeted audiences were new and interested producers, sustainable agriculture enthusiasts, current producers, and anyone in the community that wanted to gain more knowledge on each sector of the livestock and crop industry. New audiences were reached each year by providing unique programs that have not been offered in the past, such as a goat program, PQA (Pork Quality Assurance Program), and forage program. Livestock mailings and emails go out to a diverse group and continue to expand each year.

Profitable and Sustainable Agriculture - Internal/External Collaborations

For each livestock and forage program, the advisory council is consulted, as well as the county extension director & key stakeholders such as county commissioners and NC Farm Bureau. The Northeast District Livestock Agents Committee works as a team to incorporate needs assessment in the region. The entire Extension staff markets the programs and shares resources. Soil and Water, NRCS, NC State Specialists, Farm Service Agencies and local veterinarians are utilized to conduct the livestock and forage programs. Area school districts were involved via FFA and teacher volunteers.

Profitable and Sustainable Agriculture - Funding

Sponsorships and Donations support Extension Programs in the following areas: Amounts listed are cumulative for a total of 7 years.

Cattle Programs: \$8,300.00

Goat Programs: \$650.00

Horse Programs: \$1,850.00

Pork Conference: \$4,920.85

Crop: \$750.00

Total Funds Donated by Program Sponsors: \$16,470.85

Documented Program Outcomes and Impacts-

Profitable and Sustainable Agriculture Programs

HORSE IMPACTS:

-**From 2012-2017**, the Spring Equine Clinic are held with **215 horses** in attendance. This clinic saves on average \$120 dollars per producer for a farm call along with an additional \$60 dollars for the vaccines for an approximate grand total of **\$35,910.00**. The Albemarle Area Equine Vaccination Clinics not only saved producer's money, but ensured that each horse would be vaccinated in case of an equine disease outbreak. A third benefit is that the clinic enabled the horse owners to develop a veterinarian-client/patient relationship.

Equine Clinics

Years	Number of Head	Total Savings
2012	24	\$1,480.00
2013	24	\$4,680.00
2014	32	\$5,640.00
2015	38	\$6,650.00
2016	41	\$7,380.00
2017	56	\$10,080.00

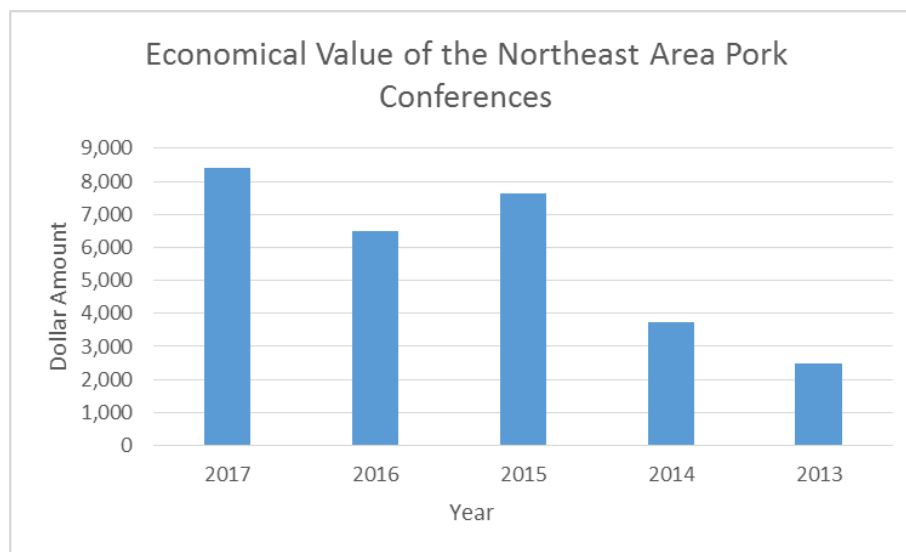
-**70 Producers** attended the Northeast Area Horse Meeting. **79%** of producers stated that they would utilize information given at the meeting. This resulted in 55

horse owners establishing a veterinarian, client relationship, which will ensure that these horses maintain proper care throughout their lifetime.

PORK IMPACTS:

- From 2010-2017, 135 producers and youth were certified in Pork Quality Assurance.

-From 2011-2017, 388 producers were recertified in continuing waste credits with 1,164 hours given at the Northeast Area Pork Conferences. A cumulative economical value of \$28,780.00 was gained at these conferences.



FORAGE IMPACTS:

-**Saved over \$9,600.00** in 2017 by implementing 3 new permanent pastures on 64 acres for a total of 204,800lbs of new forages grown.

-**Saved \$27,415 dollars** through reduced feed costs and improved pasture quality by attending the bi-annual Pasture Forage Management Field Day for 98 producers.

-**Saved \$10,000.00 annually** in Tri County Landfill cost by implementing Cattle grazing program

-From 2011-2017 the **Eastern North Carolina Hay Day** was held with 115 hours of waste credits given and 100 hours of pesticide credits. Producers and equipment dealers were asked what the value of this program was worth to them and \$285,050.00 was recorded.

BEEF IMPACTS:

-72 cattle producers have been certified in Beef Quality Assurance from (2011-2017)

-195,100lbs of mineral were purchased in bulk for a total savings of **\$29,871.00** from (2010-2017).

-4 cattle producers saved \$8,400.00 by utilizing an improved alternative feed source from (2011-2017).

-3 cattle farmers used bloat emergency procedures to save 6 cows from dying for a total profit of \$12,000.00 in (2015).

-433 Producers attended the annual Northeast Area Beef Conferences and reported the knowledge gained and implemented, creating an added value of **\$25,600.00** from (2011-2017).

-15 producers that are members of the Coastal Carolina Cattlemen’s Association sell their cattle through the Extension Windsor Feeder Calf Sale. These producers follow a set guideline for vaccinations, weaning, and worming to sell in this elite sell. By following this extension recommended practices the producers receive on average 5 cent more per pound than the statewide average.

Feeder Calf Data

Years	Number of Cattle	Total Dollar Value Added
2010-2017	1630	\$46,600.00

-By identifying an infertile bull for a producer, the **producer saved and estimated total of \$15,000.00 dollars** in lost profits from cows that would not have gotten pregnant by using this bull. (2016)

GOAT AND SHEEP IMPACTS:

-By identifying a health condition in a sheep flock 35 sheep were saved for a total savings of \$8,700. (2017)

-20 participants from 14 counties attended the Small-Scale Livestock Conference in (2016-2017).

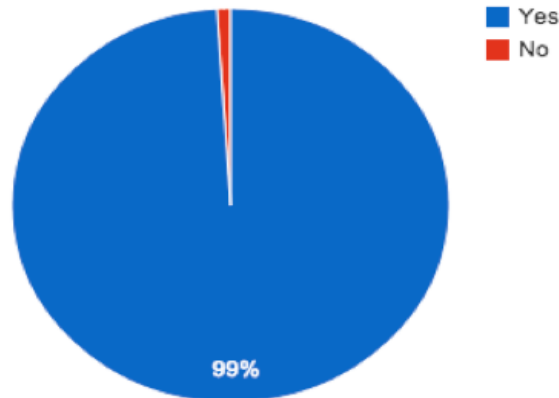
-From 2010-2017, Extension worked with **8 new goat farmers** to help them find a niche market for their meat.

-From 2010-2017, **87** producers were present for the yearly Goat Production Meetings. 88% of producers said they would utilize one of the topics presented at the meetings.

-3 Grants were written for goat producers through the Rural Advancement Foundation International. **Each producer received \$10,000 dollars** to help with their farm.

-FAMACHA also known as (FAffa Malan CHArt) and Fecal Egg Trainings were held for goat producers. 17 producers were present and **99% said they were going to start using this technique to control the resistance of worms.** A follow up evaluation concluded that 16 of these producers saved an average of **\$15 per head with 320 goats for a total of \$4,800.00 by reducing the use of worming and decreasing the number death loss from parasites.**

Do you plan to use FAMACHA in your herd?



CROP IMPACTS:

-255 people representing 129,225 acres of cropland attended the the Northeast Ag Expo. (2017)

-150 participates attended the Small Grains Field Day with a response of 2.3 bushels per acre for a total value of \$216,000.00. (2017)

-Six topics were covered at the 2016 Northeast Ag Expo field day. As many as thirty percent of respondents said they would change their behavior in one or more of the topics discussed

-The Agri-Pride Simulator reached approximately 10,000 people of all ages to demonstrate what it is like to sit in the cab of the combine and harvest one of six North Carolina commodities grown in northeastern NC -- corn, cotton, soybeans, peanuts, Irish potatoes, and wheat. Knowledge gained includes cost of equipment, value of the crop raised, uses of the crop raised and nutritional information. Approximately \$50,000 of donations and in-kind contributions was donated to make this project a reality.

-10,277 pounds of pesticide and 770 containers were received and processed for disposal. This free service saved participants an average of \$7 per pound for a total savings of \$71,939.00 during the Pesticide Disposal Days in (2015-2017).

Profitable and Sustainable Agriculture - Key Testimonials

Due to Jared's knowledge and expertise, we found the issue that was causing my cattle to get sick. I could have lost the entire herd, but Jared's quick actions saved the day. -Steve Mizelle, cattle producer

The Windsor feeder calf sales have increased my profit of selling my calves and it is a closer drive to sell them. - Russell Cartwright, cattle producer

By learning about bulls at the Area Beef conference, I brought Jared to my farm to determine if my bull could breed my cattle. From his knowledge he found that the bull was infertile and saved me a year's worth of open cows. - CY Parrish, cattle producer

I just wanted to thank your agency and inform you of how nice and informative Jared was when he visited our horse ranch on Wednesday, November 20th. The patience and advice he gave me was appreciated very much. I am new to taking care of horses, chickens, goats, and pasture and his advice was very helpful. My wife and I just moved to Tyner in August of this year and we love it here. Jared was a prime example of the nice people from this area. -Rich Snyder, niche farmer

Jared Harrell gave me valuable insight on using herbicides to increase my hay production, which increased my overall net return. Thank you Jared-Lee Dail, goat producer/advisory member

By working with Jared and the Extension Service I increased my profit per calf by grouping my cattle and selling in lots. -Rick Morgan, cattle producer

Email sent to Perquimans County Director:

"I know I have expressed to you in previous conversations how much Jared has mentored our son Caleb but last night is a testimony of how truly dedicated this man is to his profession. Late yesterday afternoon/early evening we had a heifer go into labor and she started to experience difficulty. Still being green at this whole delivery process we immediately put in a call to Jared, not knowing he was out of town for the day with work. Regardless of that, he stayed in contact with us and when things got critical, which was after his regularly scheduled work hours, he came out to the farm to help Caleb. Thanks to his expertise and willingness to come out he saved our heifer and as of this morning things were looking really good for the calf. I can't begin to tell you how much this meant to our family and regardless of any personal relationships, this truly goes above and beyond in his professional career." - **Dena Richardson, parent of 15 year old cattle farmer**

Profitable and Sustainable Agriculture - Success Stories

Statewide Weed Seminar Series- Train Agents

Livestock and Forage Agents within North Carolina Cooperative Extension expressed, through a survey, that a critical training need was weed identification in hay fields and pastures and herbicide selection to control such weeds. Producers throughout the state rely on Extension agents to provide accurate information in this area in order to increase the productivity and profitability of their forage enterprises. Having current information about herbicides and being able to identify prominent weeds is critical for these agents to provide that assistance to their clients. The Forage Work Group, a component of the Animal Science Program team, organized and implemented a series of weed seminars. Clemson University's Extension Weed specialist agreed to come deliver the training on weed identification and herbicide selection that agents here in North Carolina expressed the need for. The same seminar was delivered at three locations across the state, Canton, Raleigh, and Kenansville, in order that agents did not have so far to travel in order to participate. The seminars were held March 14-16, 2017. No formal evaluations were completed but multiple positive comments have been made concerning the training. Many agents have expressed their gratitude for the information that was presented and how beneficial it will be in their programs. Livestock and forage agents in North Carolina have the information they need to help producers identify the weeds they are dealing with and develop a plan with appropriate herbicide selection and usage to control those weeds in order to improve efficiency in that producer's forage enterprise.

Northeast Ag Expo Field Day- Markets Ag. Programs

The NC Cooperative Extension is seen as the premier source of production information by farmers and other members of the agricultural community. Farmers are seeking the most current and sound information for corn, soybean, and grain sorghum to maintain profitability. The Northeast Ag Expo is comprised of a team of Extension agents from the Extension Centers of Camden, Chowan, Currituck, Gates, Pasquotank and Perquimans counties. This team partnered with a grower-cooperator in Perquimans County, agribusinesses, commodity groups, NC State University Extension Specialists, Virginia Tech Specialists and others of the agricultural community to conduct the 2017 Northeast Ag Expo Field Day. Needs assessments were conducted to determine what topics should be covered with field tests and presentations at the field day. Topics covered included: practices maximizing corn yield and insuring early emergence, corn starter fertilizer N & P placement, practices for high versus low sorghum management, early & late season Sorghum OVT data, sugar cane aphid susceptible varieties, corn & sorghum weed control, high moisture wheat harvest and soybean production, and double crop soybean insect management. An evaluation was administered at the conclusion of the field day. There were 252 in attendance with 60,100 acres of corn and 69,125 acres of soybeans represented.

Fifty farmers received pesticide license credits, and 42 commercial pesticide applicators received a total of 84 credits, preserving a total of \$260,400 in wages. Also, 11 certified crop advisers received continuing education credits. When participants were asked if they had benefitted from information for corn or soybean from previous field days, the total economic value was \$2,880,600.

New Permanent Pastures- Save Dollars

With feed prices for livestock and horses being at an all time high, producers that are starting cattle and horse farms are looking for better ways to save money and help with feeding expenses. The producers wanted to graze and utilize their land more but did not know what direction to take. The Perquimans County Extension Service helped 3 producers with a total of 52 cattle and 3 horses to save money by creating new permanent pastures for perennial grazing. Based off the soil type of each farm, it was determined that fescue pastures was the best option for each producer. All 3 participants completed pre and post evaluations. Data was collected throughout the process of establishing the pastures to estimate the amount of forage each producer had beforehand. Results showed the increase of forage per acre. As a result of the extension service working with the 3 producers, each one of them had 3/4 of the year for grazing opportunities. This helped save the producers from buying feed and hay for most of the year. Each producer gained approximately 3200 lbs of grass per acre from when the extension service first started helping. This program worked on 64 acres with a total of 204,800 lbs of forage available. This saved the producers from buying 321 bales of hay at a cost of \$30.00 per bale for a total savings of \$9,630.00 for the first grazing year. Not only is this a substantial savings for this year to the producers but these permanent pastures will continue to save them money in years to come.

Spring Equine Clinic- Prevents Diseases and Saves Dollars

Controlling and preventing infectious diseases in horses is a major concern for all horse owners. Each year it is recommend that all horses maintain their 6 month shots to decrease the risk of being infected from a disease. The Perquimans County Cooperative Extension Service responded to a decline in the number of horse owners that were getting their horses shots from a veterinarian due to rising cost of fuel, labor, and the shot cost. The Extension Service partnered with one of the local large animal veterinarian hospitals and held an Equine Clinic in the spring. By holding an area wide equine clinic, no horse owner would get charged a vet call and the price of the medicine is reduced. The data was collected via verbal feedback. Horse owners understood that they were saving dollars by participating in the spring clinic and are asking for a repeat clinic to be offered in the fall. In February 2016, the Spring Equine Clinic was held with 41 horses in attendance. This clinic saved on average \$120 dollars per producer for a farm call along with an additional \$60 dollars for the vaccines for an approximate total of \$7,380.00. The Albemarle Area Equine Vaccination Clinic not only saved producers money, but ensured that each horse would be

vaccinated in case of an equine disease outbreak. A third benefit is that the clinic enabled the horse owners to develop a veterinarian-client/patient relationship.

Cattle Feeding Savings

Cattle require an average of 2 percent of feed per day to maintain body condition. During the summer months forages are plentiful but during the winter months producers have to rely on hay and feed to maintain their cattle. Feed can be one of the costliest expenses in a cattle operation. The Perquimans Extension Service evaluated 4 producer's feed by determining the nutritive value and the costs per ton to see if there were alternative feeds locally that could compare at a lower cost. Pre and post evaluations were used with the producers by verbal communication as well as costs per savings on feed. By accessing the producer's feed, the Perquimans Extension office determined that the producers could utilize soybean hull pellets to gain better nutritive value and save approximately \$420 per ton. Each producer used an average of 5 tons of feed through the winter with a total savings of \$8,400.00. Not only was this a cost savings for the producers, the increase in nutritive value of the feed increased the body condition score of the cattle.

2015 Northeast Area Beef Conference- Increases Cattle Profits

Cattle prices for 2014 set new record highs, with feeder calves selling for \$500 more than they did just last year. With such too-good-to-be-true prices, it is more important than ever to teach producers how to maximize their production so they can safely (for both themselves and their cattle) take advantage of the market while it lasts. Sponsored by Zoetis, NC Cattlemen's Association, Boehringer Ingelheim, Southern States, and King's Seeds, the NE Livestock Agents hosted a Beef Conference at the Vernon James Center. Topics included: down cow considerations, assisted reproduction considerations, how to measure forage biomass and conservation programs. Producers learned BQA vaccination techniques, proper storage of medicine, and techniques for assisting difficult deliveries. There were 25 producers in attendance and a class of 15 FFA students. Data was collected via evaluations filled out at the end of the conference. We had 25 responses, all from producers. Producers reported an average of 75 head per herd (ranging from 50-300 head) and estimated that the conference saved them anywhere from \$20 to \$500 with an average of \$300. In addition, by following the practices talked about, producers can see anywhere from a 3%-5% increase in the number of calves sold to market. For an average producer with 75 head of cattle, a 3%-5% increase equals an additional 2-4 calves, which when sold at market value equals a \$2,000-\$4,000 increase in income. Therefore, through saving and earning more, the average producer will have roughly \$2,020-\$4,500 more in their pocket.

2015 Northeast Area Pork Conference- Promotes Safety Certifications

According to the NC Department of Agriculture and Consumer Services 2012 Agricultural Statistics report, swine production contributed a gross income of \$2,509,280,000 to North Carolina's economy. The farmers that operate swine

farms must maintain an Animal Waste license to ensure that they are up to date on training to operate the effluent systems on their farm. In order to maintain this license, farmers must earn a minimum of 6 hours of credit every 3 years. Swine production generates waste that must be managed properly in order to ensure that our environment and natural resources are not damaged. In partnership with the NC Pork Council, NC Division of Water Quality, US Department of Agriculture, the NC Division of Soil and Water Conservation, and Murphy Brown, the NC Cooperative Extension Service in Northeast NC provided over 123 credit hours of waste management training to licensed animal waste operators at the 2015 Northeast Pork Conference. Trainings like these serve to keep animal waste system operators up to date on techniques and management practices they can use to optimize production while ensuring that they are doing everything they should to protect our natural resources. Data was collected from all 41 producers in the form of a post evaluation at the end of the conference. Producers were asked what the value of this training was worth to their farming operation for the 2015 farming season and a total of \$7,650.00 was recorded. Also by attending the conference the producers were able to maintain their license and continue using their waste system.

Optimizing Pastures- Yields

With feed prices for livestock and horses being at an all time high, producers are looking for better ways to save money and help with feeding expenses. The producers wanted to graze and utilize their land more but did not know what direction to take. The Perquimans County Cooperative Extension service helped 7 producers with a total of 105 head of cattle save money by creating new and renovated pastures for the summer time. In partnering with NCDA, and Soil and Water, the extension service worked with the producer to establish a grazing system that would fit into each specific farm. All 7 participants completed the pre and post evaluations. Data was collected throughout the process of establishing the pastures to estimate the amount of forage each producer had to begin with. This showed the increase of forage per acre they received. As a result of the extension service working with the 7 producers, each one of them cut their feed bill by two-thirds and resulted in an average of a total 4,500lbs of available forage per acre. This is an increase of 3,500lbs per acre from when the extension service first started this project. This project worked on 120 acres with a total of 420,000lbs of forage available which saved the producers from buying 494 bales of hay at a cost of \$30.00 per bale for a total savings of \$14,824 dollars.

Tri County Landfill Grazing Program- Saves Tax Dollars

The Landfill for Perquimans, Chowan, and Gates Counties has to be mowed and maintained on a regular basis. This maintenance was contracted by an outside landscaper and cost in excess of \$10,000.00 per year. This expense continued to go up each year and created an added burden to the taxpayers of the counties. In response to this situation the Perquimans County Extension Service developed a plan to save the taxpayers the full \$10,000.00 per year. The plan consisted of working with DENR (Department of Environmental and Natural

Resources), DWQ (Division of Water Quality), and NC State Beef Specialists to implement a permit to allow cattle to graze the landfill cap. Pre evaluation was used to determine the use of the landfill and the soil fertility of the ground. Post tests will be used each year to see how much producers are making per calf crop from the use of the land and how much the counties are saving by not mowing the landfill cap. There will also be an evaluation used to determine the fertility impact on the soil each year cows graze the cap. Following the permit approval by the state and by the PCG Landfill board, A producer can put 16 cows on 26 acres of the landfill at no cost of rent - which would save the cattle producer approximately \$2,600.00 per year and the counties would save \$10,000.00 per year in mowing cost. This plan of allowing cattle to graze the landfill cap is the first of its kind in North Carolina and will be used as a test/demonstration site for other counties across the state.

New and Efficient Pastures- Reduces Production Cost

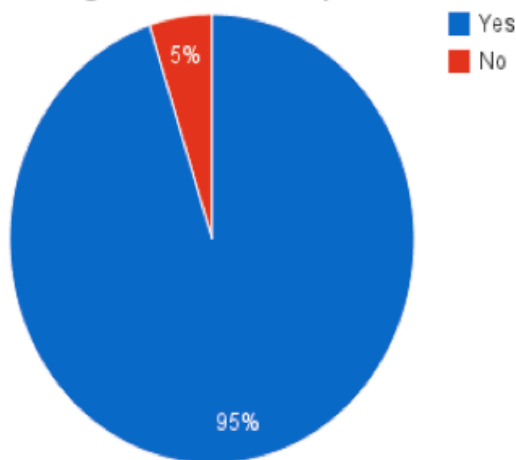
Each year feed prices continue to rise and producers are faced with the situation on how to efficiently maintain their brood cows and grow their calves for market. Most producers in Perquimans, Chowan, and Gates Counties are part time cattle and goat farmers and report that the cost of feed is too expensive and their pastures cannot adequately support their livestock. Perquimans County Extension Service met with 6 farmers to learn the challenges that each producer faced. Extension worked with them to implement a new grazing strategy and help them determine which forages to plant that would optimize the use of their land. Pre and post evaluations were used based on each producers farm productivity. As a result, each producer started using rotational and strip grazing on their farm to optimize the use of their forages. This also improved soil fertility and decreased the population of weeds in each pasture. New forages were also planted for summer and winter grazing. This gave each producer an additional 1.25 pounds per gain each day. Producers were also able to decrease the amount of feed by 1/2 and the amount of hay by 1/2. The cattle not only maintained weight, they also increased weight more efficiently. When asked what the total savings was by implementing these practices, an approximate total was given at \$28,500.00.

Northeastern North Carolina Hay Day- Teaches Forage Management

Efficient hay production is extremely important to Eastern North Carolina. It is critical to equine, beef, and small ruminant producers as a feed source. Also, swine producers in North Carolina rely on hay production as an environmentally friendly way to utilize waste from their operations. The NC Cooperative Extension Agriculture Agents from across the Northeast District combined efforts to host the 2013 Eastern North Carolina Hay Day for producers and agribusinesses. Presentations were given on weed ID and control, the use of summer annuals in pastures, and the use of bio-solids. Participants were able to see side-by-side comparisons of hay equipment from five manufacturers. Sponsoring agribusinesses also made presentations on how their products or services could increase productivity and efficiency on farms. One hundred and seventeen

participants showed an increase in knowledge based on pre and post assessments. Ninety-five percent of participants indicated that they would consider utilizing management practices presented and 100% of the participant indicated that they would recommend this training to others.

Results of 80 producers who attended the 2013 Eastern NC Hay Day that would utilize management that were presented



As a result of attending this event, 52.5 hours of waste credits and 45 hours of pesticide credits were given. Producers were asked to explain what this training was worth to their farming operation and as a result an estimated \$50,300 was recorded.

Mineral Deficiencies Solutions- Promotes Healthy Cattle

Mineral deficiencies continue to be a problem in Northeastern North Carolina for cattle producers. North Carolina Cooperative Extension has partnered with the Coastal Carolina Cattlemen's Association and North Carolina State University specialists for several years to design a cattle mineral for the region. As a result of continuing research, the Cooperative Extension suggested that the cattlemen make a new spring mineral to control the disease known as anaplasmosis and add in a element to control the fly populations on their cattle herd during the summer. Since January 2013, cattle producers in Chowan, Perquimans, Gates and surrounding counties that make up the Coastal Carolina Cattlemen's Association have purchased over 31,750lbs of minerals. This group purchase resulted in the producers saving approximately \$5,080. More importantly, there have been no health problems related to mineral deficiencies.

Forage Test Plots- Compare Variety Trials

Forages are vital for cattle producers in eastern North Carolina. Mature cows eat an average of 40 pounds of forages per day. It is essential for producers to know

what varieties of forages work well in this area. The Perquimans County Extension Service worked in conjunction with a cattle producer to have a large summer annual forage plot in Gates County. Twenty-one varieties of forage were planted from several seed companies to compare each variety side by side. The plot was laid out into three sections. The first was allowed to grow unhindered, the 2nd section was mowed halfway through the test period, and the third was grazed. This gave producers a chance to see which varieties grew back better after cutting, and perhaps most importantly, which varieties the cattle preferred. Thirty-two members of the local cattlemen's association toured the plot. This plot allowed producers to see new varieties of forages that have never been planted in eastern North Carolina and provided knowledge about which forages would work for their operation. As a result of this plot, producers have asked that the plot be replicated next year on two different sites, a sandy soil site and a clay-based site to compare how to varieties adapt to the soil conditions.

RAFI Grants- Support for Small Farmers

A number of small farms exist in Perquimans, Chowan and Gates Counties. The North Carolina Cooperative Extension Service helps make the small farmers successful by providing them with valuable educational resources. The Extension Service helped 3 producers determine their most critical needs, and then helped them write 3 RAFI Grants (The Rural Advancement Foundation International). Each producer received \$10,000 to help them with their project. This will help each producer continue to grow and expand their business to become more viable.

School to Career – Program Planning

Personal Input:

Throughout my childhood I participated in 4-H and showed livestock across the country until I aged out and went to college. From these experiences, I learned I wanted to show the youth in my three counties how important it is that they learn all they can about different sectors of agriculture. I knew the future generations that will run this country need to have a fundamental knowledge of agriculture and how important it is for our society.

Perquimans, Chowan, and Gates Counties are very rural but all youth are heavily involved in sports. Sharing fresh ideas and introducing new programs would draw the youth to an extension meeting instead of a sports practice. The 4-H Livestock advisory committee came up with a group of programs that would work well in the area. Youth were surveyed from across the counties, to find out what they would like to learn and do. From this, the advisory committee and I began to formulate a set of goals and objectives to meet the needs of the communities.

School to Career - Program Design

Goals-

- To make more kids in the community aware of agriculture
- To educate beginning young entrepreneurs starting a production farm
- To provide livestock shows for youth
- To continue existing successful programs from previous agent

School to Career - Program Objectives

- Increase awareness about agriculture
- Conduct youth specialized agriculture based programs
- Increase the interest in obtaining a job in agriculture
- Expand existing livestock shows
- Start new livestock shows
- Provide showmanship clinics for youth

School to Career - Measures of Progress

With a diverse group of youth in the area, programs were developed that would meet the unique needs of each age group, to improve knowledge about the agricultural industry. These programs were for youth of all ages, based on 4-H standards, to teach about local and statewide agricultural issues.

The delivery methods included on-farm visits, workshops, afterschool activities, school field trips, livestock shows, and judging team competitions. The best ways to disseminate the information to the youth were by newsletters, Facebook, text messages, emails and phone calls.

School to Career - Targeted Outcomes

Knowledge-Youth will gain more knowledge and understanding of the agriculture industry local and statewide.

Aspirations-Youth will aspire to understand how important agriculture is to the local level, state and country level.

Skills-Youth will increase their skills and education in the agriculture industry.

Attitudes-Youth will promote agriculture to their peers and local communities.

School to Career – Program Impacts

The impacts will be based on education that the youth learn about agriculture through the programs and the economic impact of the youth showing in the livestock shows.

School to Career – Program Evaluation

For each of the programs an evaluation is used at the end of the meeting and training. This allows me the opportunity to ask several questions to determine the knowledge gained and the impact the program made. In several of the program meetings pre and post evaluations to determine what the knowledge was before the training and what the knowledge is after the training concluded. Each of my evaluations are either done by a template designed by Dr. Jay Jayaratne using the extension recommended format, or a clicker based evaluation where each person in attendance receives a clicker and they have 1 of 4 choices they can select and the evaluation results are then reported by the computer software. The third evaluation tool that is used is one-on-one verbal information from the youth in attendance. For the younger youth, we use poster contests and fun activities to collect information for evaluations.

School to Career – Program Integration

Each of the programs in the School to Career Objective involves the public school system, advisory volunteers, and the total Extension Staff focuses on the Food, Farm, and 4-H Initiative. Agriculture, Livestock, Family and Consumer Sciences agent volunteers and even the Support Staff help to plan, implement, and evaluate the impacts of the youth program.

School to Career - Outputs-Activities

Livestock Shows Program

The Perquimans- Chowan- Gates Livestock Area Agent serves as the only advisor for the Albemarle Area 4-H Livestock Show, and the Chowan 4-H Livestock Show. These two shows have a huge impact on the youth in the community and they continue to grow with new youth added each year. **Youth have the opportunity to work with a steer, hog, goat or lamb for several months and then show and sell the animal in April of each year.** Also as part

of the livestock show program, livestock showmanship clinics are held each year for the youth that will be showing an animal for the local and statewide livestock shows. These clinics provide the youth in the community, whether they have never shown before or have shown for multiple years, an opportunity to learn how to fit and groom their animals, how to feed and use supplements, and how to show and become smoother and more graceful in the ring. These clinics continue to grow and expand each year they have been offered.

Farm Day Adventures Program

This program focuses on kids in the second grade in each county have the opportunity to see different parts of agriculture for the day. From chickens, mules, cows, goats, horses, pumpkins, experiencing the cotton queen and visiting the cotton gin, agents and volunteers teach children about the importance of agriculture for the day. This program used to be only a few hours long and from teacher evaluations, parents input and youth evaluations we have made this program almost a full day experience on the farm. Before the event, teachers take the time to read agriculture books and show a few agriculture movies to help the children understand all the roles agriculture plays in our lives.

Progressive Farm Safety Day Program

This program focuses on teaching children safety in the community. This is a nationwide program and is focused on the 3rd grade children in Perquimans, Chowan and Gates Counties. Extension agents and volunteers teach the youth **farm safety, bike safety, sun safety, wildlife safety, tool safety, etc.** This program has been going on for many years and continues to have success in the communities.

Livestock Judging Team Program

This program provides opportunities for youth to learn how to judge livestock, be able to place animals in order of best to last, gain knowledge in writing skills and learn public speaking skills, as well as learn how to work as a team to accomplish their goals. The team has meetings every other week, to look at livestock and participate in livestock competitions. Each year the team continues to grow and graduate members that are knowledgeable about important livestock judging skills. **Since 2010, 7 of the team members graduate high school and enrolled in an agricultural major at a 4 year university.**

School to Career - Teaching Methods

For all of the livestock show programs, showmanship clinics are provided with private industry volunteers, and specialists as well as livestock shows where the youth have 6-8 months of hands on individual knowledge of raising their livestock show project. The youth then have the opportunity to go to a show and compete in showmanship and official market judging and then sell their animals for slaughter.

For the Farm Day Adventures program, the Extension Service provides the opportunity for youth to learn about all sections of the agriculture industry. Other extension agents come in and talk as well as demonstrate a section of agriculture. This is a program based around 2nd graders of Perquimans and Chowan County Schools. The children are taken on a farm tour to learn about the local cotton gin, then taken to a cotton field to show the children how it is grown and raised, taken to meet the cotton queen to learn about the products that consumers use cotton for, then the children go and learn about different livestock from cows, chickens and goats and horses. All of the people that help with this event are either local extension agents as well as volunteers from the private industry.

The Progressive Farm Safety Day Program is a one day hands on demonstrations program. Students get to work with their hands and learn from Extension agents and volunteers by visual demonstrations. The program is broken down into different stations and students rotate to a new station every 30 minutes. This program teaches safety measures that will help students and their friends stay safe when they are in the community.

The Livestock Judging Team program has meetings throughout the year. These meetings consist of videos, power point, handouts and lecture based presentations as well as the youth giving reasons (explanations in a structured format for why they placed the animal a certain way) during each meeting. Other meetings involve visiting farms across North Carolina and in other states to gain experience in judging livestock. Also throughout the year the youth participate in competitions throughout the state and nationally where they judge several set of reasons and give several reasons. These kids participate as a team and compete as individuals to win prizes.

Total hours of education delivered-

Livestock Show-	85 hours per year
Farm Day Adventures-	40 hours per year
4-H Youth Agriculture-	20 hours per year
Progressive Safety Day-	8 hours per year
Livestock Judging Team-	25 hours per year

School to Career - Target audiences

Target audiences are any youth that want to learn more about agriculture, youth that are interested in raising and showing a pig, goat, steer or lamb, as well as youth that are interested 4-H and agriculture. Also youth who have an interest in livestock judging are part of the targeted audience. These targeted audiences were identified by the advisory council, doing a needs assessment, sending out emails, newsletters, Facebook posts, website posting, emails, and meeting one on one with youth, parents, and kids classes at schools. The best way to market Extension programs is by youth telling other youth and parents telling other

parents about the programs that are being offered from the Extension Service. Programs are promoted to all ethnic backgrounds by sending out newsletters and emails to everyone on the mailing lists and all new individuals are welcome to be on the mailing list throughout the year.

School to Career - Internal/External Collaborations

For all the programs that fall under the Schools to Career objective, teamwork is the key to making successful impacts. Teams are made up of fellow agents, campus specialist, school officials, community volunteers, youth leaders and parents. Private industry personnel are involved as speakers and sponsors for youth programs. For the livestock show program, and farm day adventures program, the entire local Extension staff and neighboring county agents take an interest in the youth and works together to make sure all youth have a positive experience during their Extension involvement. Area school districts were involved via FFA and teacher volunteers.

School to Career - Funding

All funds for the School to Career programs have been received from multiple grants, and generous donor's examples include (Progressive Farm Safety, Ag Carolina Farm Credit, Farm Bureau, Albemarle EMC). The dollar value below is a total amount that has been received for a 7-year period.

Total Funds: \$30,295.00

School to Career- Documented Outcomes and Impacts

FARM DAY ADVENTURE IMPACTS:

-2,406 children, parents, and teachers participated in the (2010-2017) Farm Day Adventures for Second graders in Perquimans and Chowan Counties. This experience will carry over into adulthood where educated youth grow up to be voters and will be able to make more informed decisions relating to agriculture.

LIVESTOCK SHOW IMPACTS:

-**\$22,620.00** has been awarded from grants for show pens, and new livestock show weigh scales to be used for the growing shows in (2014-2017).

-**1,261 youth showed 1,722 livestock animals in the local livestock shows and from support of the buyers the youth earned a total of \$1,775,058.85 in (2011-2017).**

-**136 participants** have attended a livestock showmanship clinic to gain knowledge about their species being shown from (2010-2017).

PROGRESSIVE SAFETY DAY IMPACTS:

-**1,076 3rd graders** participated in Progressive Safety Day Program from (2011-2017).

LIVESTOCK JUDGING TEAM IMPACTS:

-**29 youth** have competed on the Albemarle Area Livestock Judging Team, competitions were throughout North Carolina and Tennessee and Maryland from 2011-2017.

- **105** livestock judging team practices and competitions were held to give youth more knowledge about livestock.

School to Career - Key Testimonials

I had never shown a steer before at the livestock show and by attending the showmanship clinic I was able to receive 1st place in showmanship.

-Caleb Richardson

Jared, Thank you so much for supporting me and helping me with all you did. I am really looking forward to next year. I couldn't have done it without you. You taught me a lot. Thank you - Layden Stallings

Jared, we want to thank you so much for taking your time with us and the STRONG Boys. The boys truly learned a lot about pasture and soil. We really appreciate your kindness and support. -Teresa Beardsley

Thank you for being our judge this year in our livestock show. You were a really great judge that seemed very knowledgeable. -Bethany Martin

School to Career- Societal Benefits

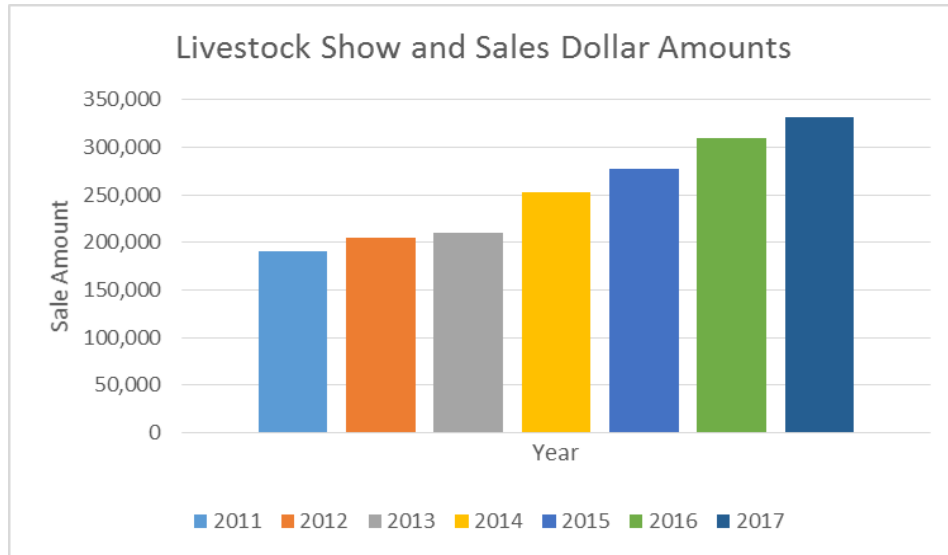
By gathering information from the advisory council and key stakeholders in the communities we knew the programs that the Extension service implemented were going to be a great asset to the communities. These programs will impact the lives of the youth and their families and help them gained knowledge on how important the agriculture sector is to North Carolina. With this knowledge the youth will be more prepared to promote agriculture throughout their lifetime.

School to Career- Success Stories

Livestock Shows- Teach Life Skills and Earn Income

Each year as the population grows in North Carolina, fewer youth have the opportunity to learn about agriculture and livestock animals. The Extension Service helps solve this issue each year by providing youth the opportunity to participate in the Chowan County 4-H Livestock Show and the Albemarle Area 4-H Livestock Show. Extension continues to offer these livestock shows so that any youth in the area will have the opportunity to be involved in agriculture. The Extension Service partners with dedicated parents, 4-Her's and volunteers to make this event possible. This year there were a total of 284 4-Hers that

participated by showing a total of 341 animals. Verbal evaluations were collected from the all the volunteers, parents, and youth as to how their experience was for helping and participating in the livestock shows, as well as written project records books for all 284 4-Hers that participated in the show. Outcomes for these shows were the 4-Hers learned responsibility, good sportsmanship skills, leadership, and dedication by raising and showing their 4-H project. From the support of the buyers the youth earned a combined total of \$331,084.90. This program continues to grow each year and teaches the 4-Hers about the agriculture industry.



Grants- Provide Livestock Pens

The Albemarle Area 4-H Livestock Show and Sale continues to grow in participation each year both in youth numbers as well as animal entries. Each year we have grown by at least 10 new participants and have seen a huge increase in swine numbers specifically. The current show facility has a limited number of pens to house the animals. This lack of pens creates a crowding problem that can lead to animals fighting, overheating, poor appetite and possible dehydration during the show and sale. The Perquimans Extension Office recognized this need for more pens and applied for the Ag Carolina Farm Credit grant. This grant is requested at an amount of \$5,000.00 to buy new hog pens for the livestock show participants. Evaluations were taken to determine the exact need for livestock pens. Once the pens were bought and installed, a final assessment is given to determine what pens or other show supplies will be needed for 2017. As a result of applying for the Ag Carolina grant The Albemarle Area 4-H Livestock Show and Sale was awarded the full amount of \$5,000.00 to use on the purchase of 10 new pens. This will help the show continue to grow and be able to handle the extra swine numbers.

Progressive Safety Day- Teaches Life Skills

Safety in and around the home is a major issue that needs to be addressed. Studies show that kids are spending more time home alone, including before and after school, summer vacations, and holidays. In response to this, the Perquimans and Gates Counties Cooperative Extension staff, along with community volunteers including EMS, NC Wildlife Service, Albemarle EMC, and the sheriffs department worked together to conduct a Progressive Safety Day event reaching approximately 180 local 3rd graders and 165 local 4th graders. Topics included were water safety, bike safety, and sun safety, chemical safety, backyard safety, and animal safety are just to name a few. Data collected from the event was through teacher and student surveys. Surveys were handed out after the event was concluded and collected the next day. Through the survey we were able to hear feedback from 345 youth, as well as the 16 teachers who were a part of the program as well. Through the use of the surveys, there was a great amount of positive feedback. 90% of the youth who participated in the event acknowledged that they would change something at their home in order to practice safety techniques they had learned at the event. In addition, 100% of the teachers felt as though the program was beneficial and are looking forward to it continuing in the future.

Judging Team- Teaches Assessment Skills and Responsibility

Positive relationships with caring adults is one of the factors that lead to building resiliency in youth. Teaching youth a specific skill or discipline takes time, resources, creativity, and a great deal of planning. The Albemarle Area 4-H Livestock Judging Team relies on adult volunteers for its continued success. Extension Agents in Camden, Pasquotank and Perquimans recruited and trained volunteer, Jennifer Perry, to lead this team 4 year ago. Mrs. Perry was ideal for this role as she was a program alumni and has significant youth development experience. Together with Extension Agents, other 4-H volunteers have been recruited to assist with planning and organizing judging team meetings, practices, farm tours, summer camp programs, participation in local, district, and state contests, and fundraising events. The Albemarle Area 4-H Livestock judging team consists of 15 youth from 3 counties. Youth participants compete in various competitions throughout the year. Based on their placing's in these competitions, we can gage how much knowledge the youth are retaining and able to demonstrate in a competitive setting. Records of time are also analyzed to determine the value of volunteer service. As a result of Mrs. Perry's knowledge, time, resources, planning and ability to recruit other volunteers she will be recognized and awarded the Northeast District 4-H Volunteer Award at the NC 4-H Volunteer Leaders Conference. Mrs. Perry has contributed well over 250 volunteer hours in teaching these 4-H'ers subject-matter and basic life skills through livestock judging. When calculated, Mrs. Perry's time spent in service is valued at approximately \$6,000.00.

Farm Day Adventures- Promotes Ag Awareness

Youth growing up in northeastern North Carolina today knowledge about how important agriculture is to society and the local community. From this growing issue, the North Carolina Cooperative Extension Service in Perquimans and Chowan Counties hosted Farm Day Adventures programs for second graders in each county. This event was held in October and had 336 children, parents, and teachers participating. The children learned how valuable agriculture is for Northeastern North Carolina, as well as they discovered where their food and clothes originate. With the help of volunteers and the Extension Service, the children made pumpkin pies from scratch, they learned about goats, pumpkins, cotton products and the cotton gin. This experience opened the eyes of the second graders and gave them knowledge of agriculture that they previously lacked. This experience will carry over into adulthood, whereas voting citizens, they will be able to make informed choices relating to agriculture.

Marketing of Cooperative Extension

What have you done to favorably position the organization and the university in your county, region/district and state?

I have continued programs from the retired agent and have started new programs for people in the community that have never used Extension. Newspaper articles are being put in the newspaper, information is being put on the website, and I started a Facebook page for my home county as well as a Facebook page for the livestock show. I am also continuing to try and add new producers to our email list. I also use my advisory council regularly to continue to find the needs of the community and add new programs or modify the existing ones. I also speak regularly with the county manager, and county commissioners to keep advocating for Extension. Since I started my programs the attendance has increased with new faces in the audience and new advocates that support Extension.

How was the public's image of Extension been enhanced by your efforts?

The public's image of Extension has been enhanced by my efforts by promoting the use of the new county extension Facebook that I created and the livestock show page, website posts and continued educational programs for the local community. I also created a quarterly district newsletter for each county in the district with the help of the other livestock agents.

How did you work with agent(s) in securing resources? Tell how all players were involved.

I worked with other agents in securing funds for area conferences. I was the lead agent in charge of the conferences and we would equally divide the responsibility for contacting sponsors to help support our programs. All funds were then reported back to me and sent to my Extension office. I was the one who

maintained the account for each program. This responsibility includes making sure each agent handles financial resources according to local government and university policies and procedures.

What cross-disciplinary efforts and programs were you involved with?

I am the lead agent with the county working with FCS, Ag, and 4-H to promote Safety Programs in the county. I have also been involved in the chicken program which provided information to people interested in learning about small flock poultry, the Northeast Ag Expo 6 counties events where I began to be heavily involved with in 2014 when there were voids in positions from retirements. Since then I have taken on vital roles within the Northeast Ag Expo Team. Also, I work with my 4-H agent to help put on a progressive safety day for 3rd graders each year as well as providing my knowledge and resources to other agents in helping put on programs, such as regional 4-H Livestock Shows, Farm Day Adventures and the Area Livestock Judging Team. I also help with the countywide 4-H Fundraisers each December by transporting wreathes across the state and volunteering with summer enrichment programs led by the 4-H agent.

Documentation/evidence of the marketing of Ag programs.

Documentation and evidence of the marketing of my programs will be displayed in my supplemental documentation packet. This includes:

- Northeast Regional Swine Conference Flyer
- Livestock Showmanship Flyer
- Chowan County Livestock Show Flyer
- Small Scale Livestock Conference
- Newspaper Article on Landfill Project
- Newspaper Article on Young Agent Award
- Mentor Letter
- Equine Vaccination Clinic
- Ag Carolina Grant Award
- Cattlemen’s Meeting Flyer

Leadership Career and Professional Development

Training/In-Service Education:

- 2017 Weed Seminar
- 2010-2017 Animal Agricultural Agent Training
- 2014-2017 Pesticide Education Coordinator Training
- 2010-2017 Eastern North Carolina Hay Day
- 2011-2017 Northeast Area Beef Conference
- Beef Quality Assurance Certifier Training
- Eastern Carolina Cattlemen’s Conference
- Integrated Parasite Management and Fecal Egg Counting Training
- 2010-2014 Livestock and Forage Agent Training Conference
- 2010 Center for Environmental Farming Workshop

- 2010-2017 Northeast Ag Expo
- 2010-2017 Northeast District Conference
- State Extension Conferences
- Waste Management and Irrigation Water Management Training
- Small Flock Poultry Training

Extension New Agent Orientation Training
Genetic Selection Workshop
Information Management Class
MBTI II Perquimans
North Carolina Goat and Sheep Roundup
State Extension Conference
Statewide Title Promotion Training
Weed Science Training
Wolfpack Leadership Academy

These trainings have helped me improve my knowledge about Extension, forages and livestock. By having these trainings, I feel that I know more about my field of expertise than when I started Extension and I feel more capable of giving the correct answer to producers. As I meet other agents from across the state at these trainings, I like sharing ideas. I look forward to receiving more trainings in the future.

How have you shared opportunities and information gained?

I have shared information that I have gained from attending trainings by putting on my own trainings in the communities, by posting information gained on the county extension website and Facebook page and production newsletters to the producers in my area. By attending in service trainings and sharing information back to the producers allowing them to stay up to date on the latest in research. I have also been appointed as a mentor by the District Director and County Director, and asked to allow fellow new agents to shadow me when they first join Extension. I also have accepted leadership roles as President of the District Ag Agents Association and Vice President of the county FFA Alumni Organization.

Coursework Completed:

AEE 501 Foundations of Agriculture and Extension Education
AEE 521 Program Planning
AEE 530 Priority Management
AEE 577 Evaluations
AEE 507 Comparative Agriculture and Extension Education
ANS 540 Selection of Domesticated Animals
AEE 578 Scientific Inquiry
AEE 620 Special Problems
AEE 505 Trends and Issues
AEE 523 Adult Education in Agriculture
AEE 526 Information Technology

I completed these courses to obtain my masters degree. My degree was completed in May of 2013 in Agriculture and Extension Education. I wanted my master's degree to further my education, learn more about extension, and further my Extension Career by obtaining full agent status and aspire to become a County Extension Director.

Teamwork Efforts:

Team efforts include the Albemarle Area 4-H Livestock Show and Sale, Chowan County 4-H Livestock Show and Sale, Northeast Area Beef Conference, Northeast Area Pork Conference, Eastern North Carolina Hay Day, Pasture Forage Management Field Day, Progressive Safety Day, Northeast Ag Expo, State Forage Team, Farm Day Adventure, & 4-H Wreath Fundraising Project. All of these events require teamwork to make them a success.

Associations/Affiliations:

North Carolina Agriculture Association
Northeast District Agricultural Association- (Currently serving as the President and Animal Science Chair and Backup Treasurer. Previous roles also are Vice President and Secretary)
North Carolina Forage and Grasslands Council
North Carolina Cattlemen's Association
Coastal Carolina Cattlemen's Association-Acting Advisor
Northeast Ag Expo-member
North Carolina Fire Firefighters Association

Committees:

State Animal Science Program Team Member
Co-Chair of State Forage Workgroup Team
Pork Workgroup Committee Member State Team
State 4-H Livestock Advisory Committee
Albemarle Area 4-H Livestock Show Board Member
Northeast District Livestock Agents Planning Committee-Chair
Gates County Ad-hoc Animal Welfare Committee-member
North Carolina Goat and Sheep Roundup Committee-member
Animal Science committee chair for Northeast District Ag Agents Association

Community Leadership:

Perquimans County FFA Alumni Association-Vice President
Perquimans County Schools Foundation-Member
Active firefighter for Inter-County Volunteer Fire Department-Acting Chaplain
Woodland United Methodist Men's President
Committee Chair of Finance Committee for Woodland United Methodist Church
Deliver Meals for Meals on Wheels Program
Committee Member for the Rufus Harrell Scholarship
Delegate for Genex Breeding Company
Board Member on Gates County Ad-hoc Animal Control Committee

Honors and Awards:

- Recipient of the Young Agent Award for Northeast District Ag Agents Association
- Completed a master's degree from NCSU in Extension Education
- State Team Member winner of a communication awards program in Newsletters-2017

Self-directed Learning Activities:

One of the major self-directed learning activities that I have accomplished is taking graduate school classes to obtain my masters degree in Adult Education. I did this to learn more about the organization and look for ways that I could serve in leadership capacity in the future. I am aware of the many crop agent vacancies in our district due to tenured agents retiring. To help meet the needs of our agricultural constituents, I have enrolled in agronomy trainings and workshops, so that I can be of help to the community, strengthen my team building skills, and remain supportive of Extension's new strategic model. Due to the absence of a crop agent, there was a need for a local pesticide coordinator and Progressive Safety Day Coordinator for Perquimans, the Ag advisory council suggested that I extend my knowledge and become the pesticide education coordinator in 2015-present as well as the Progressive Safety Day Coordinator.