Black shank has long been one of Pitt County’s major tobacco diseases. This disease forces growers to spend more money per acre in order to protect their crop from increased losses. Black shank also causes tobacco fields to be harvested early, in order to salvage remaining leaves not lost from this disease. The threat of black shank has forced growers to reevaluate their chemical programs in order to increase profits. According to university research, the addition of a chemical known as mefenoxam adds an average of 13.3% more tobacco yield per acre in black shank field situations. The use of this fungicide has increased from 11% to 39% in 2009. This increase in usage has a potential value of $1,199,107 for county producers. Tobacco farmers in Pitt County have heard advice about black shank from NC Cooperative Extension and NC State University’s Plant Pathology specialist.

Tobacco producers must be cautious with expenditures to maintain profitability. Ammonium nitrogen sources are cheaper than traditional nitrate sources for tobacco. NC State University research indicates that ammonium products are acceptable nitrogen sources for tobacco. Cooperative Extension has delivered this information through on-farm testing, field days, production meetings, emails, newsletters and one-on-one meetings with growers and dealers. Growers can save at least $40 per acre by using ammonium products for a portion of their nitrogen. In a 2009 survey, results indicate that 53 percent of tobacco producers have adopted fertilizers that include a high percentage of ammonium nitrogen. The result is a fertilizer savings of $220,480 for Johnston growers in 2009 when compared to more traditional fertilizers.

Determining peanut maturity is an important production decision. Maturity affects flavor, grade, milling quality, and shelf life. The Northampton County Center of the North Carolina Cooperative Extension Service helped peanut farmers determine maturity in 2009. Peanut samples from 31 producers, representing 775 acres were checked. Producers picked up an increase of $0.03 per pound on grade by waiting an extra 10 days to harvest a more mature crop. This translates into an additional $135 per acre or $104,625 for the 775 acres checked.

The need for research-based gardening practices has increased as homeowners are staying home more, and gardening and growing their own food. The North Carolina Cooperative Extension Service, Wilson County Center, uses the help of Wilson Extension Master Gardener volunteers to meet the demands of gardeners while contributing to the local plan of work. Their top educational priorities are building soil, reducing pesticides, and saving water. In 2009, 27 Wilson Extension Master Gardeners donated 2,565 hours to Wilson County for a savings of $50,043.

Buncombe County’s community development club program remains very active, despite challenges to this program's viability statewide. This year, the Spring Mountain Community Club won the Community of Distinction Award from the WNC Communities organization. Spring Mountain put in a walking trail and exercise course at the community center with grant donations and fund raiser proceeds. This facility serves 30 to 40 families per day in the community. This type of grassroots effort to improve rural community facilities contributes to the ability of the community to fight obesity and increase healthy living opportunities for the community. It also saves county dollars that would otherwise have to go into providing the facilities in rural areas. Grants and donations of time and labor were over $30,000 to provide this facility.
The WNC AgOption grant program provides mini-grants to growers in western North Carolina who are looking to expand or diversify their operation. A culinary herb producer contacted the local agriculture agent for help in developing a project and composing a grant application. The producer decided to expand her culinary herb production and extend the season of the crop by building a hoop house, heating an existing greenhouse and installing drip irrigation for efficient water delivery. Working together, they wrote a successful grant application and received $6,000 to complete the project. As a result of increasing production and extending the season, the grower was able to diversify their market and supply fresh culinary herbs to local restaurants. Increased income for the grower was $12,155 in 2009 and is expected to increase to $27,870 in 2010 and 2011, respectively.

In order for many commercial growers to continue farming and to encourage their children to continue the farming enterprise, they need to expand or diversify their current operation. The WNC AgOptions grant program provides farmers in western North Carolina with mini-grants to diversify or expand their operation. A Buncombe County vegetable producer and his daughter decided to apply for the grant to construct a greenhouse where she could sell vegetables beginning in the Spring and Poinsettias during the holidays. With the help of their agriculture agent, a successful grant application was written and the $6,000 allowed them to construct a greenhouse and purchase supplies. As a result, the grower increased income by $5,000 in 2009 and expects to increase income to $9,000 in 2010 and $15,000 in 2011. In addition, this viable new business will help to sustain the family farm.

Union County was going to prepare a water conservation brochure for mailing to its water customers. Our Extension Agent utilized his contacts, and was able to obtain 40,000 copies of “Water-wise Works!” , a brochure created as a joint effort of NCDA, NC Green Industry Council, and the NC Cooperative Extension Service. These brochures were inserted in the Union County water bills, saving the county $2,000 in printing costs. The brochure provided 40,000 water utility clients with research-based water conservation information during a time of water restrictions in the community.

Studies indicate that only twelve percent of students regularly eat a breakfast that is considered nutritionally adequate, while even more studies report that there is a positive correlation between breakfast consumption and the "Three A's" of achievement, attention, and attendance. During the past school year, NC Cooperative Extension partnered with an elementary school to provide education and a tasting for parents and students at events targeted by grade. At each event, information was shared about the importance of breakfast and ideas about variety of foods that might make a home breakfast convenient and economical. Participants then prepared their own fruit/yogurt parfait to enjoy. Follow-up by school personnel with families showed an increase in breakfast consumption and the school showed an increase in end-of-grade test scores.

NC Cooperative Extension in Sampson County partnered with Clinton City Schools, to address concerns about the low academic performance of 82 3rd grade students. Extension provided remedial assistance in science, math, literature, and art by incorporating the Junior Master Gardener Program, which teaches youth about horticultural practices and environmental stewardship. As a result, 65% increased their End-of-Grade test scores by at least one testing level. In the end, students maintained beautification projects while demonstrating knowledge and skills gained from the lessons taught by the NC Cooperative Extension.
Planting soybeans in the same field in consecutive years creates many possible disease and insect problems. Jones County farmers planted over 7,000 acres of soybeans in fields that had soybeans planted in them the year before. **The Jones County Cooperative Extension Agriculture Agent recommended both seed applied and foliar fungicides to reduce disease pressure.** The agent also stressed the importance of nematode assays and thorough scouting to prevent possible problems. These recommendations help preserve $2 million worth of soybean production in Jones County in 2009.

Due to the decrease in profitability of field grown tomatoes in Haywood County, one long-time farmer sought out information on greenhouse production of nursery stock. **As a result, NC Cooperative Extension in Haywood County worked with this farmer to produce container grown Rhododendrons from rooted cuttings, as well as starting Native Flame Azaleas and sourwood from locally collected seeds.** With the help and technical expertise of our extension specialist and technicians, this farmer has been able to successfully produce over 7,000 Rhododendrons.

Late spring and early fall freezes often prevent Davidson County produce growers from having harvests when prices are at a premium at the Farmers Market. NC Cooperative Extension has worked with several growers to use season extension tools such as, hoop houses, low tunnels, and floating row covers in order to increase their crop diversity in the early spring and late fall. These practices allow plants to tolerate temperatures as much as 14°F colder than unprotected plants. **By using floating row covers over low tunnels, one farm was able to plant vegetable crops earlier and enter the market with a diversity of crops.** In addition, the row covers allowed them to continue to harvest cool season vegetables through the early December. This farm paid for the row covers and low tunnels and increased their income an additional 25% by using season extension techniques.

Studies indicate one-third of NC Students do not graduate from high school. In an effort to improve the graduation rate, NC 4-H is training teachers with hands-on Science kits and Curriculum matched with the standard course of study as a solution. **4-H School Enrichment is helping teachers to gain the knowledge and students are having fun while learning, which in turn engages them in active learning and inspires them to come to school, participate and enjoy learning.** In **2009, 2,266 students participated in at least 6 hours of hands-on science through 4-H school enrichment in Beaufort County.** Teacher surveys state that students’ attendance improved and 89% had improved grades due to the retention on the knowledge gained when tested months later.