



NC COOPERATIVE EXTENSION - STATEWIDE IMPACTS Week Ending 6/19/09

- ◆ Unused pesticides can create an environmental hazard to people, animals, soils, and water supplies if they are not disposed of properly. To assist with proper disposal, North Carolina Cooperative Extension in Rockingham County offered free pesticide disposal to homeowners, farmers, and gardeners by partnering with the North Carolina Department of Agriculture and Consumer Services, Pesticide Disposal Assistance Program, and the Rockingham County Department of Environmental and Engineering Services. **At no cost to the County or participants, 223 containers of pesticide with a total weight of 1,653 pounds were collected and shipped to an out-of-state hazardous waste incinerator, to be disposed of properly. It is estimated this service would cost \$5 a pound, if conducted by a private company for a total savings of \$8,265 for the County of Rockingham in addition to the important environmental benefits.**
- ◆ Science, Technology, Engineering and Math (STEM) are specific areas targeted by 4-H. In trying to promote outreach in these areas, 3rd grade teachers in Alleghany County are provided with materials to provide a hands-on classroom opportunity to promote students' interest in these areas. Youth are provided the opportunity to participate in the embryology program in schools. **As a result of the embryology program, there was a 65% increase in knowledge as shown by a pre/post test evaluation.** The teacher evaluations stated that they saw an increase in participation in the classroom and that students were very excited and eager to expand their knowledge on embryology. The "learn by doing" philosophy of 4-H is successful at fostering an interest in STEM areas.
- ◆ Teachers with the Jones Middle School's exceptional children program continue to look for innovative ways to reach and teach students with a variety of mental disabilities. Each year, they rely on Jones County 4-H resources, a part of North Carolina Cooperative Extension, to provide additional hands-on type activities to engage their students in innovative ways of learning. During the spring of 2009, the exceptional children's program selected the 4-H embryology school enrichment program as one way to capture their students' interest and to teach them about life cycles. **The teachers were very pleased to report that one student, who had previously been habitually absent, did not miss one day of school during the entire month of the embryology project. The embryology project succeeded in engaging this student in learning.**
- ◆ In North Carolina, over half (65%) of all adults are overweight or obese. In Alleghany County, 65-69% of the adult population is either overweight or obese. In the US, 4 of the leading 10 causes of death are related to obesity: diabetes and pre-diabetes; heart disease; stroke; and cancer. NC Cooperative Extension held 2 sessions of a 10-week weight loss program titled *Eat Smart, Move More, Weigh Less*, which were hosted by the Alleghany Wellness Center and Alleghany Memorial Hospital. **A total of 34 people participated, with weight loss between 7-30 pounds experienced by each participant. Three individuals saw a decrease in their blood pressure (in two cases, thereby avoiding medication) and two individuals decreased their cholesterol levels.** Evaluations indicated a change in attitude about food and eating consistently occurred as well, with many personal comments regarding life change for the better.
- ◆ In an effort to address the statewide obesity epidemic, NC Cooperative Extension in Dare County conducted the *Eat Smart, Move More, Weigh Less* program; **20 participants completed the program and lost a total of 183 pounds. In addition, 70% were able to reduce their Body Mass Index by at least one point, 75% reduced their waist circumference, and 40% were able to reduce their blood pressure during the program.** All of the participants reported adopting at least 5 healthy behaviors such as preparing more meals at home and being more physically active. **Most importantly, at a six-week follow-up, 100% of the participants had maintained their weight loss. The State of North Carolina estimates that the financial cost of overweight and obesity is \$2,384 per person per year, so by conducting this program, North Carolina has saved \$47,680 in associated medical costs due to overweight issues.**

- ◆ Most hand sanitizers contain ethanol and some contain isopropyl alcohol. The concentration of alcohol in these products varies from 45% to 95%. Infants and toddlers are very sensitive to alcohol; even a small amount licked from a child's hand can have a toxic effect. A mother attending the Tarawa Terrace WIC EFNEP Program was using hand sanitizer frequently on her infant. In the class, she learned the possible danger of using the hand sanitizer and that hand washing with soap and warm water for 20 seconds was the best way to remove dirt and germs from hands. She not only learned that hand sanitizer should not be used on infants, but if used on older children should be carefully supervised. **Extension's EFNEP Program prevented possible infant poisoning and provided safety precautions for the use and storage of sanitizer products.**

- ◆ The droughts of 2007-2008 forced many businesses, local governments and citizens to rethink the way they use and manage water resources. NC Cooperative Extension in Craven County worked with various County personnel, an Extension Specialist and engineers to install a rainwater harvesting system at the county animal shelter. The system includes two 3,000 gallon cisterns connected to the roof gutters of the building, a pump and system controls. Water from the cisterns is now used to flush animal waste from the building to a holding and pump tank, where it is then sent to the wastewater treatment plant. For every inch of rain that falls on the animal shelter roof, over 1,900 gallons of water is sent to the cisterns. **Over the past 3 months, over 15,000 gallons of water has been used from the system, thus saving 15,000 gallons of potable water supply and reducing runoff by 15,000 gallons.**

- ◆ The North Carolina Division of Water Quality (DWQ) has mandated that all Animal Waste Operations complete lagoon sludge surveys by September 30, 2009. NC Cooperative Extension in Person County purchased equipment and provided assistance to the animal waste operators of the county to perform these tasks. Not completing these jobs would put the animal waste operation in jeopardy of being fined or shut down. **By being able to complete these tasks without having to hire someone, county animal waste operators were able to save approximately \$3,000. Additionally, the farms remain in good standing with DWQ and will continue to produce animal products.** Those products, of course, are a main source of income; therefore, these farmers will be able to maintain their quality of life.

- ◆ For one small family farm, negative impacts on soil and water resources posed a threat to the viability and sustainability of their enterprise. This threat included non-compliance with permanent conservation easement covenants for soil and water protection, and the possibility of negative customer perceptions. Both threats could affect the farm marketing strategies of creating customer loyalty and product demand by being environmentally friendly. With these risks to an Extension client and relationship developed over several years of interactions, Extension partnered with Natural Resources Conservation Service (NRCS) to offer resource management solutions, and Blue Ridge Rural Land Trust to address compliance with the conservation easement covenants. **The outcome is a farm conservation plan for soil and water protection by NRCS, and avoidance of legal notifications by the Land Trust for covenant non-compliance. The farm enterprise can continue to market products using an environmentally friendly farm marketing strategy to customers.**

- ◆ North Carolina ranks 5th worst in the US for childhood obesity. Alleghany County ranks first in the number of overweight and obese children in NC. Unhealthy diet and physical inactivity are among the leading causes of overweight and obesity. In the US, 4 of the leading 10 causes of death are related to obesity: diabetes and pre-diabetes; heart disease; stroke; and cancer. Steps to Health (SNAP-Ed), a program funded by USDA through NC State University, was implemented in the 3rd grade of one of Alleghany County's elementary schools. This nine-session program had 31 students participating, and includes food demonstrations with each lesson. Lessons include topics such as food pyramid, nutrition of fruits and vegetables, awareness of sugar content in beverages, label reading and daily recommended exercise for children. **Both teacher and student evaluations indicated an increased awareness of nutrition as well as an increased enthusiasm for the consumption of new and healthy foods.**