



## NC COOPERATIVE EXTENSION - STATEWIDE IMPACTS

Week Ending 1/30/09

- ◆ There are no processing facilities for prawn in NC. The American Prawn Cooperative (APC) needed outside funding to plan and construct a processing plant in Greene County that would provide uniformity and value to the commodity. **With leadership from NC Cooperative Extension, the APC collaborating with Greene County government was able to secure a \$300,000 NC Rural Center Innovation Grant. Collaborating with Greene County provides the project with no costs for oversight, while providing accountability for the funds. The success of this collaboration led to an additional \$50,000 grant from Golden Leaf for a prawn nursery and live haul research.**
- ◆ The 2008 Avery County 4-H Summer W.O.W. (Wonderful Opportunities Waiting) Program enrolled 185 children, and had an average daily attendance of 87. Close to 60% of these children were low income or identified as at-risk (countywide, 70% of all elementary children were eligible for free or reduced lunch). In the past, many of these children did not bring a lunch to the summer program because the family lacked the food, or the lunches they brought were extremely unhealthy and consisted of the 4 C's (chips, cookies, cakes and cokes). To correct these problems, **NC Cooperative Extension's Avery County 4-H Program applied for and was accepted as a participant in the NC Summer Food Service Program. As a result, the 4-H Program was able to access \$18,883 in new dollars to serve a free, nutritious breakfast, lunch and snack to all summer participants. In total, 7,772 meals were served to low income children.**
- ◆ Biodiesel production from used cooking oil on a small-scale individual farm level has the potential to accomplish several desirable outcomes. It will remove Waste Vegetable Oil/Animal Fat (WVO) from the waste stream. Non-petro diesel fuel is easier on the environment. It helps in meeting the goal of energy independence. And last but not least, it saves money on fuel bills. The technology is relatively simple and equipment costs can be minimal. **NC Cooperative Extension in Martin County worked with two restaurant owners and two farmers to produce biodiesel from WVO. They have converted over 3,200 gallons of WVO to biodiesel for a savings of \$8,000 in their fuel bills.**
- ◆ Indoor air quality is a major factor in human health. Recently, our Family and Consumer Science Agent with NC Cooperative Extension in Durham County received a call from a citizen concerned about mold in her home. However, after questioning the citizen further, she learned that the citizen had recently been diagnosed with elevated levels of carbon monoxide. The citizen did not understand her doctor's diagnosis and had failed to realize the grave consequences of abnormal amounts of carbon monoxide in her home, thus in her blood stream. **After a thorough explanation of the health risks associated with carbon monoxide poisoning, the citizen understood her somber circumstances and took immediate steps to eliminate the source producing the excessive poisonous gas from her home. Extension's educational information helped avert a potentially deadly consequence for one of its valued citizens.**

- ◆ The Center for Disease Control and Prevention reports that approximately 76 million people get sick and 5,000 people die annually from foodborne diseases. Children, senior citizens, and people with a compromised immune system are at a higher risk. The Davidson County Center of North Carolina Cooperative Extension with the support of the Davidson County Environmental Health Department offered an 18-hour ServSafe food safety certification program for food service workers. The program focuses on teaching safe food handling practices at all levels of operation. Sixty-five participants representing 53 food establishments completed the program in 2008. Ninety-eight percent indicated an increase in knowledge of safe food handling practices through passing a certification exam. **Application of knowledge gained will reduce the risk of foodborne illness and save over \$75,000 in lawsuit costs. If just one case of foodborne illness is prevented per establishment, there is an estimated savings over \$3,975,000.**
- ◆ Production costs have increased by 32 percent for Johnston County tobacco growers from 2005 to 2008. Curing fuel costs represent a significant expense for growers. NC Cooperative Extension discussed methods of efficient curing at the Johnston County Tobacco Production meeting, on WTSB radio, in newsletters and during one-on-one visits with growers. Additional efficiency tests were conducted on three local farms in 2007 and on 5 farms in 2008. As a result, curing controllers have been installed on 186 curing barns in Johnston County. Research has shown that these controllers can reduce fuel consumption by approximately 40 gallons per cure. It is estimated that each of these barns was cycled at least 7 times, representing a potential fuel savings of 52,080 gallons of liquid petroleum gas. **This fuel savings is valued at \$104,160 for the 2008 curing season.**
- ◆ Fertilizer prices increased dramatically in Johnston County during 2008. Traditional fertilizers like 6-6-18 and 8-8-24 were cost prohibitive for some growers. NC Cooperative Extension programs have demonstrated that non-traditional tobacco fertilizers such as liquid nitrogen solutions in combination with blended potassium products are just as effective as traditional products, but they cost much less. Grower surveys conducted in Johnston County in 2008 show that 55 percent of growers switched to the non-traditional fertilizers. **Local prices for 2008 show that this shift saved tobacco farmers at least \$73 per acre on approximately 5,800 acres of tobacco. The total value of this savings for Johnston County is estimated at \$425,590 for 2008.**
- ◆ Since the federal tobacco buyout in 2004, flue-cured tobacco profit margins have decreased significantly in Johnston County. Tobacco growers must produce high yields to remain profitable. NC Cooperative Extension has encouraged the selection of high yielding tobacco varieties through meetings, newsletters and direct communication. Grower surveys conducted in 2008 indicate that 71 percent of tobacco acres in Johnston County were planted in varieties that rank within the top 6 out of the 27 total varieties in the 2005-07 official variety testing program versus only 54 percent in 2005. This represents an increase of 17 percent of total acres planted in high yielding varieties. These varieties yield on average 238 pounds per acre more than the variety test average. **Selecting these varieties increased gross farm cash receipts by \$754,821 in 2008 in Johnston County.**
- ◆ In New Hanover County, youth from limited-resource families and those living with disabilities have limited opportunities to participate in hands-on nature-based experiences. The Ability Garden, a unique horticultural therapy program of NC Cooperative Extension, offers year-round, onsite and outreach opportunities. **In 2008, the Ability Garden provided 30 different youth-focused programs, serving 314 individuals, and providing a total of 1,090 hours of service.** Teachers built on the experience and understanding of plants and nature established in Ability Garden programs by integrating learning outcomes into the classroom. Story boards, journals, written exercises and sensory exploration were tools used to complement existing curriculum. In 2008, Ability Garden classes planted four school gardens with seasonally appropriate materials. **Program impacts were diverse with experiences tailored to maximize success despite the physical, cognitive, emotional and behavioral limitations of participants. A \$6,000 grant allows the extension of programming to Pre-K aged youth in 2009.**

- ◆ Studies and observations have shown a decline in our country's competitiveness with regard to competencies in science, engineering and technology. Less and less of our population are taking on these challenges, thereby relinquishing control and development of these growth areas to other countries, creating a potential national security challenge for future generations. With an ever increasing emphasis on the application of these disciplines (projected 1.25 million additional science and engineering jobs by 2012), the U.S. has designated the preparation of our youth to support ever more sophisticated skills in science, technology and engineering as a national priority. **In 2008, 1,296 youth participated in the Gaston County 4-H Embryology program from 81 classrooms. Educators involved in the program reported a 90% increase in participant interest of related scientific concepts, an 84% increase in science related grades and comprehension due to program participation, and a 79% increase in class participation.**
  
- ◆ Johnston County government officials are always looking for ways to enhance the lives of its citizens. 4-H volunteers play a vital role in this goal by volunteering their time at club meetings and other activities, which reach Johnston County youth. In 2008, club leaders, teachers, teacher assistants along with other adult and youth volunteers reported 2,730 hours directly benefiting over 3,400 youth. Participants developed 21st Century life skills including critical thinking, communications, decision making and goal setting, while studying subject matter information. These "hands-on" programs were given during club meetings, in elementary school embryology classes and a variety of Summer Fun Day Camps. **The reported 2,730 volunteer hours (according to the Independent Sector 2007 values of \$19.51 per hour) had a value of \$53,262.30, which greatly enhanced the lives of Johnston County's youth, with little to no cost to the participants or county government.**
  
- ◆ A local farmer approached our Agriculture and Family and Consumer Sciences Agents in Caldwell County to learn how to process rabbits on his farm to increase his income. This part-time farmer is also disabled, so his 20 acres provides much needed resources for him and his wife. The Extension agents made a connection with a local processor in a neighboring county to assist with the removal of the rabbit hide. Additionally, the NC State Food Science Meat Specialists helped to develop a formula for sanitizing the meat prior to freezing to comply with safe food handling practices. **Processed rabbits sold for \$9 per pound and each carcass was approximately 4 pounds; his first order was a delivery of 400 carcasses giving him additional income of \$3,600. The collaborative effort of the local resources and campus specialist helped this local farmer improve his value added products.**
  
- ◆ **From August 2008 to November 2008, NC Cooperative Extension in Hertford County worked with the NC State Division of Hazard Waste Management and the Hertford County School System to secure a \$2,500 grant from the State for Hazardous Waste removal.** The grant was for the removal and proper disposal of hazardous materials from the School System's High School Chemistry and Biology Lab Classes. **Up until this time, these materials had been stored for up to four years with School Maintenance Personnel unsure of how to properly store and dispose of these chemicals.**
  
- ◆ Older adults living with age related disorders, chronic illness and disabilities are extremely limited in their access to nature-based volunteer opportunities. The Ability Garden, a unique program of NC State Cooperative Extension, has provided horticultural therapy opportunities for up to 10 adults, on a weekly basis, for the past 7 years. This program allows Master Gardeners and plant enthusiasts to come together in a safe learning environment to grow plants despite physical, cognitive, emotional and behavioral health issues. **In 2008, these supported volunteers contributed over 532 hours of service, valued at \$10,028, and produced a wide variety of plants for sale. Outreach plant sales, often staffed by these supported volunteers, generated over \$14,750 for The Ability Garden in 2008.** Participants were provided with opportunities to be an active part of their community. **Personal impacts ranged from reduced social isolation to improved health and well being through physical exercise and cognitive stimulation.**

- ◆ As a result of the federally mandated Pets Act of 2006, NC Cooperative Extension and Gaston County's County Animal Response Team (CART) members helped Gaston County Emergency Management and Red Cross develop a plan to ensure that State and local emergency preparedness operational plans addressed the needs of individuals with household pets and service animals following a major disaster or emergency. **As a result of these efforts, Gaston Emergency Management was able to purchase a Companion Animal Mobile Equipment Trailer (CAMET) stocked with pet supplies and kennels with federal, state, and local funds to implement a co-located shelter for people with pets in two predetermined locations in Gaston County.**
- ◆ Water coming from some private wells in Nash County contained higher than desired levels of arsenic. County commissioners responded by offering to expand the county's public water system, provided enough citizens financially subscribe to this public service. **Through mass mailings and an educational meeting, NC Cooperative Extension conveyed this opportunity in factual, easy-to-understand terms. Citizen sign-up for public water was more than adequate to make this project financially feasible.** Construction of the water system expansion project is now underway. Expanding the public water system will improve water quality for some and water supply for others, and will increase property values for many.
- ◆ Rising prices of food and gasoline have left many consumers with less expendable income in 2008. A recent survey by the American Farm Bureau Federation found that food prices have increased 8-9% over the last year. NC Cooperative Extension in Lee County offered the workshop, Planting a Fall Vegetable Garden, to teach 41 homeowners the skills and knowledge required to grow their own groceries. Twenty-nine attendees stated that they plan to plant a fall garden for the first time or use the knowledge gained from the workshop to improve their existing vegetable garden. **The USDA Center for Nutrition Policy and Promotion estimates that the average American family of four spends about \$896 in groceries per month, about 15% of which is spent on produce. Supplementing groceries with homegrown produce can save the average homeowner as much as \$134 per month.**