

Health and Safety on North Carolina Farms

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Many rural areas in North Carolina do not receive the professional health care they deserve. North Carolina Farm Bureau recognized this unfilled need and implemented its Healthy Living for a Lifetime program in 2010. This initiative is one way to help improve the health of the state's 52,000 family farmers.

Because the state's greatest asset is its people, good health is a basic requirement for economic viability and success. Many people in rural areas in North Carolina are not receiving the professional health care they need and deserve. In fact, in most rural areas of the state, there are not enough doctors, clinics, and hospitals to meet the needs that are there.

As a responsible corporate partner, North Carolina Farm Bureau—the state's largest general farm organization—recognized this unfilled need and implemented its Healthy Living for a Lifetime mobile health program in 2010, as a way to help not only farm families, but rural residents and their families as well.

Farm Bureau policy positions are set by the vast majority of North Carolina's 52,000 family farmers [1]. Through participation in the annual grassroots resolutions process, our thousands of active volunteer leaders debate and ultimately vote on the contents of the organization's official policy book [2]. These member-grown policy positions guide the work of Farm Bureau when it comes to advocating for farmers in the regulatory and political bodies of local, state, and federal governments.

Health care is a major budgetary factor for the small and medium family farms that dominate North Carolina's agricultural landscape. The state's farms average 418 acres, just slightly above the national average [1]. Today, 97% of all US farms are owned by individuals, family partnerships, or family corporations [3].

Compared with other industries, agriculture presents a broad array of occupational hazards in terms of both health and safety. This is particularly true for the family-operated farm or small farm where workers must perform all jobs and, therefore, encounter a wide array of hazards [4].

In addition to being the brain and the backbone of our food supply, farmers and the workers who make up the agriculture and agribusiness industry account for almost one-fifth of the state's income and employees. Nearly \$70 billion

of North Carolina's \$398 billion gross state product is contributed by the combined food, fiber, and forestry industries [5].

A common problem in rural areas is the lack of doctors and other medical professionals. However, other related problems also hinder access to health care for many rural residents. Those problems can include lack of transportation, lack of knowledge about coverage resources, and less access to resources for prevention. More than 18% of North Carolinians are uninsured, and the number is rising. Compared with their urban counterparts, the state's rural residents have less access to quality health care, higher poverty rates, fewer new jobs, and a lack of critical knowledge of health prevention and wellness.

That's why the Healthy Living for a Lifetime initiative is vital to the farmers and rural residents of the state. Through early detection, follow-up health support, and the establishment of healthy lifestyle habits, this initiative will increase long-term employability among participants. It will also help rural residents find local medical homes or ongoing health services.

It's been just over 1 year since we launched the Healthy Living for a Lifetime initiative, and the results have been revealing. To date, free health screenings have been provided to more than 2,800 farmers and to rural residents across 25 counties. The results have confirmed that the health problems of rural North Carolina are both pervasive and severe.

Just as in national statistics, we've found obesity to be a problem. Left untreated, obesity leads to a number of health problems. Healthy Living for a Lifetime's participating client screenings, from 2010, resulted in the following statistics: 73% of the 1400 clients tested were either overweight or obese, 45% had high cholesterol, 19% had high blood glucose, and 62% had high blood pressure. Moreover, a significantly higher percentage of this population was at high risk for obesity, high cholesterol, diabetes, and high blood pressure, compared with the national averages.

Beyond the basic health and wellness concerns facing farmers and rural residents, the hazards of the profes-

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sion add another layer of issues. Farming and forestry are among the most hazardous occupations, exposing workers to a variety of health and safety risks, ranging from chemical and toxic gas exposure to accidents associated with heavy machinery and livestock [6].

There are several state and federal government agencies responsible for helping to educate rural folks about the hazards associated with farm work. The departments of labor and agriculture, as well as land grant universities and others, have developed educational programs designed to prevent farm accidents.

The North Carolina Cooperative Extension, for example, provides safety information to farmworkers, pesticide applicators, and their families, through training programs and publications designed to improve health and safety [6].

North Carolina workers in the agriculture, forestry, fishing, and hunting industry suffered 13 fatal occupational injuries in 2009, 10 of which were transportation incidents. Preliminary data for 2010 reveals there were 7 incidences of fatal occupational injuries in the industry [7].

In addition to the deep personal tragedy of disabling work injuries and fatalities, the medical expenses, lost wages, insurance administration, and uninsured costs have long-term detrimental effects on the industry and the general economy [4].

In North Carolina, Department of Labor inspectors enforce the federal Occupational Safety and Health Act through a state plan approved by the US Department of Labor. The Occupational Safety and Health Division of the North Carolina Department of Labor also offers many educational programs to the public and produces publications to help inform people about their rights and responsibilities with regard to occupational safety and health [4].

Farm Bureau's volunteer leaders have also worked with these agencies and other entities, such as the North Carolina Agromedicine Institute, to help prevent the accidents, illnesses, and other health issues that can result from working the land.

For decades, county farm bureaus have hosted a variety of health and safety events. They even created North Carolina Farm Bureau's Willie the Safety Squirrel, to emphasize the importance of good health and safety to children and teens.

Skin cancer is a real concern for farmers, particularly for young farmers. We encourage the medical community to emphasize the dangers to their patients. Several county farm bureaus have assisted in this educational effort. We have sponsored booths at events that included information on proper sun protection and free hats that help farmers and others avoid the risk of skin cancer. Many county farm bureaus have hosted skin cancer events, as well as blood drives.

While some county farm bureaus have chosen to make cash donations to support their local medical communities, others have used that money to help agricultural-related organizations in their prohealth efforts. County farm

bureaus, for example, have donated funds to the 4-H Health and Fitness Boot Camp. Other county farm bureaus have even sponsored events focusing on proper dental hygiene.

Yet still more Farm Bureau members and organizational publications have helped raise awareness of the dangers of heat exhaustion and heat stroke, which can produce permanent injury. Heat related illness is a very serious problem and kills approximately half of those who experience heat stroke [4].

Most farmworkers who are regularly exposed to excessive levels of sound suffer undue hearing loss. Noise also produces other effects detrimental to job performance and well-being [4]. Recognizing this need, North Carolina Farm Bureau has been working with researchers at the University of Michigan on a farmers' hearing loss study. The goal of this project is to develop effective programs to protect farmers' hearing.

Research has resulted in technological improvements that continue to make farming safer and healthier. Air-conditioned and air-filtered cabs on tractors protect farmers from excessive heat and sun, as well as from dust and fumes from pesticides. GPS-controlled equipment eliminates eye strain and potential rollovers. All-terrain vehicles, while still a significant hazard, are safer now than in the past.

While technology is helpful, it cannot prevent all the hazards and dangers of farm work. The top causes of farm accidents and deaths are tractor-related rollovers and collisions. Tractor overturns account for more farm work deaths than any other accident type. Using a rollover protective structure and a seat belt provides the tractor operator with the best available protection in the event of an overturn [4].

North Carolina Farm Bureau's rollover protective structure program provides cost-share assistance to farmers who choose to install the protective structures on their older tractors. In addition to rollovers on unlevel farmland, highway incidents remain the most frequent fatal event in the workplace in North Carolina, as well as in the nation. There were 51 such incidents in North Carolina in 2009 [7].

North Carolina's population is projected to increase by more than 50% between 2000 and 2030. One obvious side effect of this rapid growth is more cars traveling on the state's 78,000 miles of maintained urban and rural roadways.

For the average driver, the biggest problem accompanying more traffic is congestion and a longer commute to work. For farmers, the top concern is worker safety—specifically accidents that occur while driving tractors, combines, and other equipment along roads, between fields.

Along with the population increase, North Carolina's agricultural industry has experienced dramatic changes. Crop diversity, a reduction in the number of farms, and vast improvements in biotechnology have created an environment where agricultural practices are considered a year-round activity in many counties across the state. So farm equipment is now on the highways more than ever before.

Some of the most recent-statistics on farm vehicle

crashes in North Carolina show 3000 crashes between 1991 and 1999 [8]. More of the most-recent statistics also show that farm vehicle and nonfarm vehicle accidents account for less than 1% of crashes statewide. A crash involving a farm vehicle and a nonfarm vehicle, however, results in death or serious injury 51% of the time [9].

Sixty-six percent of citations resulting from farm and nonfarm vehicle crashes that were issued to nonfarm drivers were for failure to reduce speed, so the biggest measure anyone can take to help prevent an accident and save the life of a farmer is to slow down and drive with caution.

Aside from helping to encourage drivers to travel carefully along the state's back roads, county farm bureaus have hosted a farm medic class for fire departments, rescue squads, and county emergency medical services personnel, to demonstrate different farm equipment and ways to deal with agricultural-specific accidents, such as becoming entangled in power takeoff shafts. Fire and electrical awareness have also been topics of events from several counties that have worked with volunteer fire departments and power company officials.

"Fatal-vision goggles", which simulate driving under the influence of alcohol, as well as information that deals with the dangers of text-messaging while driving, have been distributed at many rural high schools, with assistance from Farm Bureau members and troopers with the North Carolina Highway Patrol.

Farm Bureau continues to monitor not only the overall health of the bottom line of agriculture but also the well-being and safety of the state's farmers. We are committed to improving the quality of life of our membership. Working together with the state's agencies and medical communities

that are responsible for public health in North Carolina is definitely part of that mission. NCMJ

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