

## Farm Safety Day Camp Programs for Youth

### Introduction

According to the National Agriculture Statistic Service (NASS, 2009), there were 15,876 agriculture-related injuries, which occurred to children or adolescents under the age of 20 who lived on, worked on or visited a farm in 2009. Of all the children injured in farm related accidents, just over 48% of them lived in the Midwest. In Ohio alone, there were 35 farm-related fatalities involving children from 1993 to 2002 (The Ohio State University, 2002). Putnam County Ohio is the 5th largest agricultural county in the state of Ohio. A local Farm Safety Camp is designed to educate children about safe practices and to reduce their risk of injury when on farms. Raising awareness of the potential dangers existing in rural areas and on farms enables youth to be more knowledgeable and careful, around agricultural facilities, equipment, and even their own homes.

### Procedures

Ohio State University Extension Putnam County Ohio partners with the Sheriff's Department and the Health Department to plan the event. The safety camp is held at a local grain and livestock farm. The county's nine public schools and three parochial schools are contacted in the fall to hold an early April date for the Farm Safety Day Camp. April allows for reasonably warm weather but spring planting has not yet started. The schools are coordinated so that class sizes are balanced for each safety session. Each school transports their 3rd grade students to the farm as a half-day field trip. Students rotate through the safety stations every 15 minutes in class groups. The stations are conducted in machine sheds, tents and outside if weather allows.

A local implement equipment dealer provides an educational speaker and machinery for the PTO entanglement and lawnmower stations. An electric cooperative provides an electricity safety demonstration model with a presenter. The health department provides guest speakers and materials to discuss accidental poisonings. OSU Extension provides county educators, audio visual equipment and a flowing grain safety demo. An FFA Chapter provides student volunteers to help with set up and assist presenters. The Sheriff's office provides water safety equipment and presenters who use the farm pond for a station on water safety. The local fire department, ambulatory care center and emergency management agency simulate an emergency rescue for an ATV rollover accident that includes the arrival and departure of a life-flight helicopter.

Teachers escort their 3rd grade students from station to station providing organization and oversight. This also enables them to reinforce the materials taught within the classroom following the event. Because all participants are third graders, presenters are able to tailor all safety materials to be age appropriate and engaging for 8 and 9 year olds.

A wide variety of teaching methods are used at the various safety stations. The grain safety station is near a 40,000 bushel grain bin and a 600 bushel hopper wagon. A transparent table top demo is used to show how drowning can occur in flowing grain of wagons or grain storage bins.

The water safety station has a person needing help about 15 feet out in the farm pond. Students toss flotation devices to the distressed individual and are instructed that almost anything that floats can help. The poison station shows blue sports drinks that are similar to window wiper fluid and how similar the comet sink cleaner container is to the parmesan cheese container. These similar looking liquids and/or their containers can confuse youth and result in accidental poisoning. In addition, empty farm chemical containers are treated with a residue that can be revealed under a black light in order to demonstrate the importance of washing your hands after touching such containers.

The electricity station provided by the local electrical cooperative demonstrates how electricity seeks the most direct path to the ground. Hotdogs and toy soldiers become victims of downed power lines and kites accidentally caught in power lines. Youth learn to avoid power lines and report any downed lines to an adult.

The machinery entanglement station uses a combination of videos and a cordless drill to show how clothing can become entangled in rotating power shafts or equipment pinch points. At the firearm safety station, law officers discuss the importance of not handling guns without adult supervision and

encourage youth to report any guns they may find. The tobacco station has a retired dentist showing pictures and videos of the harm that can come from tobacco products, especially smokeless tobacco.

In the simulated emergency rescue, a crash dummy is pinned under an overturned ATV in the farm driveway. Youth are lined up along the drive, and a tarp covering the accident is removed. The sheriff narrates what is happening as police and emergency rescue personnel arrive. A life flight helicopter landing finalizes the mock accident simulation. The mock rescue involves all the sirens and equipment of a real accident scene. After the rescue and a fly-over, the helicopter returns to the farm so that youth can look inside.

### **Assessment**

Of the nearly 600 students attending the day camp in 2013, 524 completed a survey, yielding an 89% response rate. Of those 524 student surveys, 430 parent surveys were returned to the classroom teachers, representing 87% of the possible student-parent matched responses. Demographic descriptors indicate the population was 94% Caucasian and an equal split of boys and girls (n=262 respectively). Almost all campers reported they visited farms (94%). Approximately 48% of students indicated they lived in a rural area, 41.5% in the country and 9.4% on a farm. About 47% of the students lived near town (14.6%) or in a town (32.5%). Results also indicated 89% of students recalled a safety lesson they could use, 91% indicated the demonstrations held their interest and 93% indicated the presenters answered their safety questions clearly.

In 2010, parents were also surveyed about Farm Safety Day Camp. The majority of parents (80.0%) felt the program was a beneficial experience for their children, yet 59.9% would not have taken their child to a safety day camp if it were not part of a school field trip. One hundred and twenty five parents (26.8%) reported their children are practicing better safety behaviors since their day camp experience. Of interest to local program coordinators, 86 parents (18.5%) indicated they have tried to replicate and re-enforce the topics discussed.

### **References**

Department of Agriculture Safety and Health. 2002. Farm fatality and injury database of Ohio. The Ohio State University, Columbus.

National Agriculture Statistic Service. 2009. United States Department of Agriculture. Retrieved March 2014, from: <http://www.usda.gov/nass/>

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