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THE ROLE AND RESPONSIBILITY OF THE AGRICULTURAL PROFESSIONAL IN PROMOTING FARMERS' SAFETY AND HEALTH

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Abstract

Farmers indicate they expect and request farm safety services and information from the local farm chemical dealers.

This workshop identifies agricultural hazards associated with crop production; e.g., tractors, machinery, and chemicals. Emphasis is placed on discussing the roles and responsibilities of the agricultural professional towards enhancing and promoting farmers' safety and health by means of various intervention strategies. Workshop participants will participate in group discussions in order to identify and recommend additional ways in which they can better serve their clientele in this crucial area.

Introduction

Farmers expect and request farm safety services and information from their local farm chemical dealers. Results of a survey completed by 106 NE Iowa farmers indicated that they considered local farm chemical dealers to be the most important group involved in supporting and promoting farm safety in the community. They also indicated they do look to the chemical dealers (second to farm magazines) as being a primary source for farm safety information.

This workshop is presented in order that the agricultural professional may become familiar with safety and health issues of farm families involved in crop production. Hazards and issues are identified in order that intervention strategies can be identified and solutions implemented.

This workshop will enable the agricultural professional to:

1. recognize reasons for being concerned and involved with the farmers' safety and health
2. identify safety hazards and issues of farm families involved in crop production
3. identify intervention strategies for promoting and developing safer agriculture
4. develop additional intervention strategies that can be utilized for improving the safety and health of farm families.
Why Should I, as an Agricultural Professional, be Concerned About the Safety and Health of my Clientele?

An immediate response to the above question would simply be, "money." Dead farmers don’t buy products. Recent models in safety and health promotions find that community-based support and participation is a very important aspect of program success.

It was stated in a recent presentation (Williams, 1992) that rural communities lose one business for every five to seven farmers that discontinue farming. A hidden cost of serious farm accidents is that often the family will discontinue farming, especially if the principal farm operator is killed.

As will be further explained in a later section of this paper, providing health and safety equipment also increases the marketing potential for a business.

Additionally, it makes good business sense to show a concern for the well-being of the clientele served.

Identification of Safety Hazards and Issues

Perceptions of hazards often do not match the realities, as evidenced by the Iowa Farm and Rural Life Poll (Lasley and Kettner, 1989). The survey was completed by 2,016 Iowa farm families. Farmers indicated they perceived insecticides as the most hazardous item they worked with and tractors as the least hazardous.

Yet, for those reporting they had had an accident, farm machinery was the number one item involved, with tractors being fourth. No acute accidents involving insecticides were reported.

A recent study of 3 years of tractor-related accidents in Iowa (Lehtola, 1992), indicated that tractors were involved in 53% of the agricultural fatalities and 40% of the agricultural accidents that were reported in Iowa’s newspapers. It is nationally recognized that machinery is the number one item involved in farm-related accidents and the tractor is the machine most often involved in a fatality. Tractor overturns are the number one cause of tractor-related deaths. Several studies (including the Iowa study) have shown that there have been no deaths in an overturn in a tractor that was equipped with a rollover protective structure (ROPS). ROPS will not prevent the overturn; however, they will serve to protect the operator.

Two other areas of concern associated with tractor-related deaths involve runover (the operator may fall off, or a passenger falls off); and collision with a motor-vehicle on the public roadway. All the tractor passenger deaths involved children and were incurred on tractors with cabs as well as without cabs. Motor-vehicle collisions were due to:
1) tractor being rear-ended (36%); 2) tractor turning left while a motorist was attempting to pass (25%); and 3) head-on collision (21%).

Reasons behind many of the tractor accidents involved improper shielding, need for improved lighting and marking, lack of operator training, and improper use of the tractor (e.g., herding cattle, carrying loads too high or too heavy).

For the past three years, the Iowa Department of Public Health has been collecting data on agricultural accidents as reported by hospitals, clinics, and the medical network. Their data for 1991 indicated that machinery (not tractors) accounted for almost 20% of the total injuries reported and 6% of fatalities; tractors accounted for 9.4% of the total injuries and 38% of the fatalities. Livestock were involved in 18% of the total injuries and 3% of the fatalities. Slips and falls were the cause of 13% of the injuries and 3% of the fatalities. Slips and falls are not unique to only the agricultural setting; however, the problem in the agricultural setting can be compounded by what a person may slip or fall into. It has also been noted that many of the harvest season injuries are associated with falling off the combine or equipment. Chemical exposure was the cause of 2% of the total injuries and no fatalities.

Individual hazards for a farm or workplace can be identified by means of checklists that are available. Implementing the corrections becomes a more challenging task.

There are other issues involved in implementing farm safety. These barriers and issues need to be taken into consideration when corrections are considered. It is imperative that the unique aspects of agriculture be recognized. The agricultural professional is already aware of these unique qualities (e.g., independence, isolated, and do not favor regulation) and there is no need to elaborate here. Other social issues to be considered include the concepts of 'peer' pressure; the cost of safety equipment (especially if it does not affect the function of the equipment); and the lack of an incentive or reward system for practicing safer farming.

**Identification of Intervention Strategies**

In order to identify effective intervention strategies, it is necessary to understand a basic premise essential to injury intervention. Two necessary factors involved in motivating behavioral change are: 1) personalization of the risk, and 2) accessibility to the means for change.

As an agricultural professional, you are in a position to help in both of the above mentioned areas. You can help show farmers they are at risk when they follow unsafe practices. Perhaps, the area where you can have the most influence is in providing "access to the means for change." Safety information may indicate the need for safety devices; however, if a person has to go through an obstacle course to obtain the necessary equipment, it will not be obtained and used.
Examples of this include having safety devices available for sale to farmers, such as dust masks, goggles, gloves, and other devices as indicated by causative factors in accidents.

In the previous section, it was mentioned that a leading cause in tractor-related accidents included the involvement of motor vehicles on the public roadways. The two leading causes were due to the tractor being rear-ended and the tractor turning left (usually when pulling wagons) while a motor vehicle was passing. These two factors indicate the need for improved lighting and marking of tractors and ag equipment. Lighting harness packages are available (and need to be sold through local businesses) for tractors and for towed equipment. This is one example of looking at a cause of accidents and determining what service you can provide that may help eliminate that hazard.

Intervention strategies also include educational and training programs. Frequently, several businesses in a community will cooperate in sponsoring these programs. The following information is provided in order to assist those who may be in charge of developing or implementing educational programs for an agricultural audience.

Educational programs developed for agricultural audiences must consider the unique aspects of that audience. It is recognized that the agricultural learner wants practical information that has immediate application. Skaggs (1992:17) stated, "In the agrarian belief system, immediate, visible productivity is the most highly valued enterprise."

Lehtola and Boyd (1992) reported on the success of a video course in agricultural safety taken by adult students enrolled in Iowa State University's off-campus ag program. Assignments were designed in order that students could apply the learning to their own farm or workplace. They stated (p.34): "The synergistic effect of (video) teaching agricultural safety at the point of application was found to be a key element in the recognition and elimination of hazards." They further concluded that the video medium is indeed a viable and effective tool for effectively reaching and teaching the agricultural audience.

When educational programs are developed, it is also necessary to recognize that people learn in different ways; thus, use of a variety of teaching methods will reach a greater number of people. People learn better when more senses are involved; e.g., sight and sound promote learning more effectively than sound alone.

Use of "bloody" pictures can have an impact; however, caution should be taken that this not be used exclusively or used only for sensationalism purposes.

Educational interventions and training can be presented with different target groups in mind. Groups that are becoming more involved in being trained for injury prevention and preparedness are farm spouses and children. Programs will focus on different aspects for the various target groups. For example, the farm operator may be trained in proper handling of
anhydrous; the spouse may be trained in making certain water, gloves, and goggles are available and field ready; children can be trained in the hazards of the product and why they should not be in the area; and the entire farm family can be trained in preparedness practices of what to do in the event that something does happen and they are the first on the scene.

Safety and health need to be recognized as being an integral part of daily living. It should not necessarily be an entity in and of itself. Ideally, it should be incorporated as a part of the aspects of crop production. For example, if a program is being presented on an aspect of improving crop production, the safety hazards and interventions associated with that task should be presented. It needs to be recognized that safe behavior is the socially acceptable behavior and does add to one’s productivity. Accidents cost money!

Resources

Iowa is fortunate to have many agricultural safety related programs and initiatives taking place. Resources are available for use by ag professionals and farm families.

In 1990, the Iowa Legislature established the Iowa Center for Agricultural Safety and Health (I-CASH). I-CASH involves the cooperation of the Extension Safety Specialist at Iowa State University, The University of Iowa Institute of Agricultural Medicine and Occupational Health, the Iowa Department of Public Health, and the Iowa Department of Agriculture and Land Stewardship. I-CASH was established for the purpose of efficiently utilizing Iowa’s agricultural safety and health resources in order to improve the health and safety of Iowa’s farm families. As an ag professional, if you need assistance with finding safety and health resources, you may contact C. Lehtola at 319-335-4065; or Charles Schwab at 515-294-6360.

A comprehensive course in agricultural safety and health will be offered via satellite and video tape in the spring of 1993. This is being produced at Iowa State University and involves a cooperative effort with the U of I and ISU. For more information on this, contact the office of off-campus programs in agriculture (800-747-4478) at ISU. It will be taught by C. Lehtola.

A network of clinics offering screening, testing, and educational services to farm families is being established in the state. Presently there are clinics (or satellites) at Spencer, Mason City, Cedar Falls, Dubuque, Keosauqua, Oskaloosa, and Harlan. Personnel involved with these are excellent sources to contact for more specific and local information. Information on names and numbers can be obtained by contacting I-CASH at 319-335-4438.

Development of Appropriate and Practical Interventions

This session of the workshop involves active participation on the part of the agricultural professional. Based on the hazards that exist, the resources available, and the potential for change, interventions need to be developed that are feasible to carry out and will have an impact.
Based on the vast knowledge, experience, and capabilities of the agricultural professionals involved, a group discussion will lead to many innovative and effective ideas. For those who read this paper at a later date, and were unable to participate in the workshop, please contact the author if you wish summary information of this portion.

Summary

Based on information obtained from farmers, it is recognized that the agricultural professional does play a major role in helping farmers improve their safety and health. In order that effective interventions be implemented, it is necessary to recognize what the hazards and problem areas are, how to best reach the agricultural audience, and then identify and incorporate strategies that address these issues in the most effective and appropriate manner.

With strong community support and influence, farmers can be encouraged to develop safer farming practices. Farm safety is not just the problem of the farmer. The well-being and productivity of our most important resource involves participation, encouragement, and active promotion on the part of the entire rural community.

The agricultural professional has a very important role to play and can be a very influential member of the network of people that are working for the improved well-being of our farm families.

References


