

## AgrAbility Program: Saving Farms and Helping Farmers to Stay in Farming

*Connie D. Baggett  
Rama B. Radhakrishna  
Linda M. Fetzer  
The Pennsylvania State University*

### Background

AgrAbility is a four year grant project through the U.S. Department of Agriculture that provides direct services to farmers with a disability or injury. It links the Cooperative Extension System with private and nonprofit disability service organizations, community groups and volunteers to provide practical education and assistance to promote independence in agricultural production and rural living. Services provided by AgrAbility include disabled farmer evaluation, work sites assessments, modification recommendations, suggesting equipment adaptation, task restructuring, mobilizing and coordinating community resources and services, facilitating rural independent living, peer counseling and support groups, educating about agricultural safety, and preventing secondary injuries.

Agriculture work is ranked as one of the most dangerous occupations in the nation (RTC, 2000). According to the National Safety Council (2003), the agricultural industry's death rate was 20.9 fatalities per 100,000 workers and 110,000 disabling injuries. While these numbers are declining, the cost of work injuries rose from \$131.2 billion in 2000 to \$156.2 billion in 2003. The top three types of incidents resulting in farm fatalities are tractors, agricultural machinery, and falls. An upcoming 5 year report soon to be released by the Pennsylvania State University notes that there have been 137 farm related deaths in Pennsylvania alone. The top three types of nonfatal injuries resulted in incidents with machinery, livestock, and tractors.

### Purpose and Objectives

Since the major thrust of the AgrAbility program was to provide direct services to disabled/injured farm families and educate professionals and consumers, it was extremely important to evaluate the AgrAbility program. The following two objectives guided the study: 1) increase public awareness of AgrAbility services to injured/disabled farm families, extension educators, farm machinery dealers, and healthcare workers and 2) determine the impact of AgrAbility services on the number of tasks that AgrAbility clients can do independently and safely.

### Methods

The sample for this study consisted of all clients (N=46) of the AgrAbility for Pennsylvanians program. The subjects selected for the study can be described as purposeful-critical case sampling. According to Patton (2002), purposeful-critical-sampling is used when subjects or cases selected are particularly important, based on some criteria of special significance to the research or evaluation study.

Two tracking systems were developed to document the outcomes of the program. Under the tracking systems a detailed on-site assessment of each client was carried out. The form contained demographic information, type of farm operation, number of farm assessments, and nature of disability, cause, and referral sources. The second form contained information relative to site assessment, including difficult tasks and clients' self-assessed ability to complete those tasks. Each client rated their current ability to do the tasks. Then, the AgrAbility team assessed the cause and/or source of disability to make recommendations. AgrAbility program coordinators who made site visits collected evaluation data transferred into a database developed for the purpose. Data collected were summarized using descriptive statistics.

## Findings

### *Objective 1*

A variety of activities were conducted by the AgrAbility staff to create awareness. A total of 179 activities were conducted. Of these, 83 were presentations to various stakeholders explaining a variety of service provided by the AgrAbility program, 29 educational activities to youth, and 67 exhibits at conferences and expositions. AgrAbility staff worked with 207 clients dealing with minor and major injuries: joint (25%), back (17%), amputations (13%), and arthritis (11%).

### *Objective 2*

Based on the initial self-assessments, three problem areas were identified: tractor accessibility/operation, feeding, and farm mobility. A total of 46 farmers provided information on the assessments. Twenty-seven of the 46 farmers had difficulty performing 67 tractor accessibility tasks. AgrAbility staff visited these clients and offered recommendations which included extra steps, additional hand holds, and tractor lifts were recommended. By the end of the project cycle, the same farmers reported no difficulty in performing 40 of the 67 tractor related tasks (60%).

Twenty-one of the 46 farmers had difficulty performing 30 feeding related tasks. AgrAbility staff recommended using feed bins, new silo unloaders, lightweight troughs, electric feed carts, etc. By the end of the project cycle, the same farmers reported no difficulty in performing 24 of the 30 tasks (80%).

Regarding farm mobility tasks, 33 of the 46 farmers had difficulty performing 36 farm mobility tasks. Utility vehicles such as Polaris rangers, John Deere Gator, Gate opening systems, etc. were recommended by AgrAbility staff. By the end of project cycle, same farmers reported no difficulty in performing 27 of the 36 farm mobility tasks (75%).

## Conclusions and Recommendations

Overall, several of the targets of the project were met. Although several efforts were made to increase public awareness of the AgrAbility services, need exists to further strengthen the outreach efforts. Several changes are underway to strengthen outreach efforts which include

enhanced collaboration with other organizations to increase the visibility of the program and to share resources. The tracking forms have been helpful in documenting outcomes of the AgrAbility program.

Assessments and site visits conducted by AgrAbility staff has helped farmers to perform farm related tasks and continue farming. A number of farmers are able to perform a number of tasks in tractor operations and accessibility, feeding and mobility. However, improvements are needed. During the implementation phase, we encountered several challenges and barriers. A three-prong evaluation plan has been developed to document outcomes of the program which include: standardized questions, pre and post assessments, observations, and follow-up site visits. These measures will be implemented in the new project cycle (2006-10) which was recently funded by USDA.

#### References

- Patton, M.Q. (2002). *Qualitative research and evaluation methods*. Thousand Oaks, CA: Sage.
- Research and Training Center-RTC (2000). *Developing innovative solutions for rural Americans with disabilities*. Retrieved October 5, 2005 from:  
<http://ruralinstitute.umn.edu/rtrcrural/RuDis/RuDemography.htm>