

AgrAbility Virginia



AgrAbility Virginia Project - Service Case Study

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AgrAbility Virginia is an established project and a cooperative effort of the Virginia Cooperative Extension (VCE), Easter Seals, Virginia, National Easter Seals, Virginia Assistive Technology System, Woodrow Wilson Rehabilitation Center (WWRC), Virginia Department of Rehabilitative Services (DRS), Virginia Farm Bureau Safety (FB), and Centers for Independent Living (CIL). These collaborators work together to refine a service delivery system designed to meet the needs of Virginia farmers, ranchers, and rural families affected by disabilities. Referral numbers for direct education and assistance continue to grow. Rural professionals are becoming aware of AgrAbility service delivery and the partnership. Staff within the cooperating agencies are gaining skills needed to effectively meet rural and agricultural needs. As a result, direct services are being provided to Virginia farmers and ranchers in a way that allows for more people to be served in a more efficient and collaborative fashion.

An analysis of Virginia's existing situation reveals five major gaps: 1) Limited resources within the Cooperative Extension to identify existing needs; 2) Knowledge deficits among farmers and farm family members regarding the availability and use of assistive technology (AT) modifications; 3) Limited case finding and service delivery to rural communities and traditionally under served farm groups (especially limited resource, small farms and minority group farmers); 4) Lack of competency in farm modifications among rehabilitation and health professions who serve farm clients (physical/occupational therapists, nurses, physicians, social workers, vocational rehabilitation counselors, etc.); and 5) Lack of assistive technology and rehabilitation information reaching rural and farm communities.

In addition to the coordination of health care services and rehabilitative therapy services, AgrAbility Virginia directs evaluations and recommendations regarding adaptations to agricultural worksites and on-site technical assistance. The technical assistance will be directed toward the design, fabrication, and use of equipment modifications for both the worksite and the home-site to ensure continued productivity by these individuals while maximizing their independence and increasing quality of life. The goal is to keep persons that have made a livelihood from the agricultural production and want to remain in that vocation, the means to do so after a disabling injury or accident. Five case studies will be highlighted.

CASE 1

Mr. Sherman was injured in a recreational accident on June 6th, 2002. He sustained a C3 spinal cord injury which caused paralysis from the neck down. Mr. Sherman owns a 427 acre farm with beef cattle, tobacco, hay, and horses. Given the severity of his injuries it became apparent that his role on the farm would change. During AgrAbility Virginia's initial meeting with Mr. Sherman, we discussed farming with disabilities and discussed ways for him to continue farming. It was decided that he could take on the role of farm manager, and be responsible for payroll, accounts, and all farm management records.

The team felt that Mr. Sherman would benefit greatly from involvement with the Department of Rehabilitative Services (DRS), and a referral to the regional counselor was made. After meeting with his DRS counselor, a computer evaluation was completed by therapists from Woodrow Wilson Rehabilitation Center (WWRC), and Mr. Sherman was equipped with a wheelchair-accessible workstation, computer with on-screen keyboard, and a Quadjoy, which is a sip-and-puff piece of equipment that allows him to use the keyboard and mouse with minimal stress on the neck. An AgrAbility Virginia staff member coordinated efforts between DRS and WWRC to ensure timeliness and appropriateness of the project.

The AgrAbility Virginia staff member also assisted in the set up of the computer and also worked with a VCE Farm Business Management agent to aid Mr. Sherman in setting up his records on QuickBooks. Through the cooperative efforts between DRS, WWRC, VCE, and AgrAbility Virginia, Mr. Sherman was able to continue playing an active role on the farm. Staff members from the health care field and agricultural field were able to come together to assist this client in dealing with his injury and getting him back to work.

Future developments with Mr. Sherman may include organizing a volunteer-based paving project to allow him wheelchair access to his barns and employees. He would also benefit from voice-activated two-way radios or other communication devices.

CASE 2

Ms. Greg is an upcoming high school senior who desires to attend college and pursue a career in agriculture. She also has a learning disability. She was referred to AgrAbility Virginia by her DRS counselor because of her interest in agriculture. After speaking with the family and client regarding her academic and career goals, an AgrAbility Virginia staff member consulted with the Special Services departments from colleges she plans to attend, as well as companies who distribute software designed for learning disabilities.

AgrAbility Virginia coordinated meetings with the family and Special Services Department to ensure she received all of the resources possible to assure a successful college experience. Special software and programs were used during her final year of high school so that when she arrives at college she is proficient in the technology. With the help of AgrAbility Virginia, DRS, and Special Services faculty members (at Virginia Tech), Ms. Greg will have less anxiety and difficulty as she begins college.

CASE 3



Mr. Bradshaw suffered a spinal cord injury in 1996 at the L3 level which resulted in paralysis from the waist down. He had been an automotive mechanic for 13 years prior to his injury but was unable to return to work due to symptoms and issues related to his injury. For seven years, Mr. Thompson has been receiving Social Security Disability Insurance as his only source of income.

He had been raising meat goats for personal consumption and realized that he could expand his operation and potentially become self-sufficient as a producer of meat goats. He

spoke with his DRS counselor about getting assistance in purchasing a mobility vehicle and was then referred to AgrAbility Virginia. Before DRS could assist him, he developed a business plan for the meat goat enterprise. Mr. Thompson and an AgrAbility Virginia staff member then met with the Small Business Development Center for assistance with the business plan. Others involved in the business plan development were the Virginia Department of Agriculture, Virginia Tech, DRS, Virginia State University, and VCE. Mr. Thompson also received assistance from the Benefits Specialist from Centers for Independent Living (CIL) and the Social Security Administration, specifically the PASS cadre. He has submitted his business plan to DRS and did receive funding for a mobility aid, thus increasing his abilities to be productive with his farming operation.

The impact of AgrAbility Virginia in this case is not just the cooperation between providers and agricultural members, but potentially to the meat goat market in the state of Virginia. Regional slaughterhouses sometimes have difficulty buying from local suppliers since the supply is not sufficient. Customers are demanding more goat meat each month and the supply is generally imported from other states. Mr. Thompson is entering a growing market and has the potential to be successful meat goat producer.



CASE 4

Silas Shelburne, a southwestern Virginia beef and tobacco farmer, was having a little fun jumping on a trampoline with his three children during June 2002. The fun, however, ended abruptly when Mr. Shelburne fell off the trampoline and sustained a crush injury to his C4/C5 vertebrae, leaving him with quadriplegia. This life changing injury left him wondering how he would continue to operate his more than 100 acre, three generation farm. Through the use of a wheelchair

accessible workstation and a computer with an on-screen keyboard, he is now able to manage the accounting and management records. Modifications of the passenger seat of a Kawasaki Mule

has given him access to many of his fields and pastures. With the help of the AgrAbility program and other Rural Rehabilitation Partners, Mr. Shelburne has been able to return to a productive role on the farm.

CASE 5



Alvin Blaha resides in Dinwiddie County in the Eastern part of Virginia. He is a longtime soybean farmer who suffered a serious rupture of his aorta, resulting in emergency surgery. Consequently Alvin lost enough of his upper body strength that it inhibited his ability in farming. This included his ability to pull himself up into his International Harvester combine. With his keen eye and resourcefulness he discovered the remnants of an old John Deere tractor ladder. AgrAbility Virginia worked with Alvin and the Woodrow Wilson Rehabilitation Center in Fishersville, Virginia to design steps that are now attached to the International. Today Alvin simply walks up the steps into his combine, and by pulling a lever he retracts the steps

so he can then go about his work.

CASE 6



Fred, a cattle farmer from rural Virginia was referred to AgrAbility in 2003 by his cousin who works for DRS. At that time, Fred had undergone back surgery for nerve damage and was restricted by his physician to lifting less than 25 pounds. With over 100 head of beef cattle and 150 acres to manage, his medical limitations presented some challenges. Prior to our initial assessment, the client had identified two major concerns: (1) hooking up his PTO shaft from the baler to the tractor, and (2) manually operating a head gate when working with his herd.

An assessment was completed and several more areas of concern were identified. These included:

- feed storage (currently, 50 + pound bags are stacked on the floor of a shed)
- hauling (the client's cattle trailer uses a hand-operated jack)
- fatigue (standing for long periods is painful on his workshop's cement floor)
- communication (the client is using a cell phone but signal availability varies across the farm).

The PTO link-up problem previously identified continued to be a real source of frustration, but by the end of the visit a number of possible solutions had been generated. Two ideas proved worthwhile: first, that a stationary cradle-type holder for the shaft would prevent him from unnecessarily mounting and dismounting the tractor repeatedly. Secondly, the DRS counselor suggested that a cylinder could be inserted to the lower bars of the three-point-hitch, enabling the



client to maneuver the PTO shaft onto the tractor with less stress to the farmer's injured back. During the meeting, the operation of the head gate was examined and a reasonable alternative was demonstrated by the Farm Bureau representative.

At the conclusion of the assessment, the goals identified by the team were:

- To increase the client's ability to complete farm tasks independently by using technology and assistive devices, so as to minimize the amount of physical force.
- To investigate communication devices that will provide a measure of safety while in remote areas of the farm.
- To provide information related to farming with a back injury and to educate the client about proper body mechanics with the goal to prevent secondary injuries.

Since the initial assessment, AgrAbility staff have shared information relating to the goals identified and concerns of the client through mailings, telephone conversations, and email. Types of materials shared include:

Technology/AT Devices:

- Feed carts and lift tables (foot pedal/electric/air-hydraulic)
- Electric trailer motors to adjust the height of the trailer jack automatically
- Floor cushioning mats for the cement-floored workshop

Communication Devices:

2-way radios with large mileage ranges, capable of covering the farm entirely.

Medical literature:

- Farming with a back injury tip sheet
- Proper lifting techniques printout

This client continues to face medical treatment for his back condition; he recently underwent another surgery for a compressed nerve and is in the healing process.

Summary

AgrAbility Virginia Project is committed to assist these clients with their current issues and as their needs evolve. Each case has proven to be dynamic situation, and has challenged the staff to find solutions to a wide range of issues presented by injury and the aging process. AgrAbility Virginia remains dedicated to providing ideas and solutions for people involved in agriculture to continue their way of life both in a productive and safe manner.

Resources

AgrAbility Virginia Website. 2005. <http://www.agrability.ext.vt.edu/> Accessed May 9, 2005.