Cultivating success in agriculture, employment, and rural life for people with disabilities and their families

1991 to 2011 and beyond
The AgrAbility Program serves farm and ranch families affected by disability. It’s about breaking down barriers and breaking new ground. It’s the practical expression of technology, tenacity, and the willingness to try. The AgrAbility mission is to enhance and protect quality of life and preserve livelihoods. The AgrAbility philosophy represents the very ideals that define American agriculture. It’s about supporting and promoting growth and independence. It’s about no-limit thinking and the can-do spirit. Ultimately, it’s about hope.
A recent study published in the Journal of Agromedicine\(^1\) estimated that between 1.04 million to 2.23 million individuals in the U.S. agricultural population have a disability that affects their work or activities of daily living.

The average age of the American farmer/rancher continues to climb, and is currently at 57.1 years. With this comes a variety of age-related disabilities, such as hearing loss, visual impairments, and arthritis – the most prevalent disabling condition in the U.S.

Only 17% of the U.S. population lives in rural areas, but rural residents account for 44% of our military.\(^2\) These rural veterans are returning to their farms, ranches, and rural communities with disabilities such as traumatic brain injury and post-traumatic stress disorder at high rates.

AgrAbility serves those agricultural workers who are limited by any type of physical, cognitive, or illness-related disability, including but not limited to:

- amputation
- arthritis
- back impairment
- deafness/hearing impairment
- developmental disabilities, such as cerebral palsy or autism
- disabling diseases, such as cancer or heart disease
- mental/behavioral health problems
- respiratory diseases
- spinal cord injuries
- stroke
- traumatic brain injury
- visual impairment


AgrAbility is a program sponsored by the U.S. Department of Agriculture (USDA) that provides assistance to farmers, ranchers, other agricultural workers, and farm family members affected by disability.

It consists of a National Project and State/Regional Projects (currently serving 25 states), each involving collaborative partnerships between land-grant universities and various nonprofit disability services organizations.

The National AgrAbility Project has been led by several organizations throughout its history:
- 1991 – 2000: Purdue University's Breaking New Ground Resource Center and Easter Seals
- 2000 – 2008: University of Wisconsin Extension and Easter Seals
- 2008 – present: Purdue’s Breaking New Ground Resource Center, Goodwill Industries International, the Arthritis Foundation-Indiana Chapter, and the University of Illinois at Urbana-Champaign

Support, funding, and oversight for AgrAbility come from the USDA’s National Institute of Food and Agriculture.

AgrAbility offers a variety of services, including the following, at no cost to customers:

- Conducting on-site assessments to identify barriers to completing tasks, both in the agricultural workplace and the home.
- Recommending appropriate assistive technologies (equipment/tools/devices), modified work practices, and other possible solutions to overcoming disability-related limitations.
- Providing access to informational materials on a variety of topics related to disability and agriculture.
- Providing education/training opportunities through workshops, conferences, seminars, and online programs.
- Referring customers to other service providers for potential assistance (e.g., financial, rehabilitative, educational) specific to the clients' needs.
- Arranging for peer support opportunities to connect customers with others who have successfully accommodated their disabilities.

AgrAbility does not provide direct funding or equipment. However, AgrAbility Projects often work with state Vocational Rehabilitation departments and other funding sources to help customers obtain needed assistive technologies and modifications.

Special thanks to the following AgrAbility Projects for the use of their photos on the outside and inside covers: Georgia, Indiana, Nebraska, and Oklahoma.
AgrAbility

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1991 to 2011 and beyond

A Small Program with a Big Impact
Impact through Direct Services
Impact through Collaborative Relationships
Impact through Education and Research
Broader Impact
Future Impact

PURDUE UNIVERSITY

Breaking New Ground

ARTHRITIS FOUNDATION Take Control. We Can Help™

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN
It's challenging to describe the mindset of American farmers and ranchers without becoming cliché. However, one thing is certain—it's difficult, if not impossible, to succeed in agriculture without a commitment to hard work. The hours are long, and the physical and mental stresses are overwhelming at times.

Working with pain may be a common inconvenience for many farmers and ranchers, but not being able to work at all is another story. When a disabling injury or disease seriously impedes or completely stops the ability to work hard, the result is often frustration and even anger for those who embrace a life in agriculture.

Another defining characteristic of farmers and ranchers is self-reliance—a strength that can sometimes be a liability. When disability pushes these men and women beyond their own means, abilities, and knowledge, many don't know where to turn for help because they're so accustomed to independence.

That's where AgrAbility comes in. For 20 years, this vital program has been providing practical assistance for these individuals to stay in agriculture and guidance on where to go for the resources to get the job done. AgrAbility can't take a "one size fits all" approach, given the wide range of disabilities and broad continuum of agricultural enterprise types. The Program's help also has to be timely, because crops can't wait a few months to be planted or harvested, and livestock won't wait long to be fed or milked.

AgrAbility's annual budget of $4.2 million is 0.000126% of total federal expenses. Unlike some investments that depreciate, like buildings, roads, and bridges, we contend that the taxpayers' investment in AgrAbility appreciates over time. Farmers, ranchers, and other agricultural workers with disabilities are given the chance to keep working and contributing to society while providing a positive example to family, friends, and community that may influence generations to come.

This report is an attempt to show that AgrAbility is truly a small program with a big impact. Statistics about client services, listings of resources developed, facts about educational initiatives, and other supporting material are provided. However, the stories of actual AgrAbility clients may be the most important means of conveying the impact AgrAbility is having now and influence it can have into the future.

Dairy farmer David Glamm had one chore left on the evening of July 4, 2005—filling the barnyard feed bunk. When nothing came down the chute after switching on the silo unloader, he assumed it was clogged again with haylage. By mistake, he pushed the unloader with his left foot next to the auger, which grabbed the foot, resulting in a below-the-knee amputation. However, with help from the Minnesota AgrAbility Project, the State Vocational Rehabilitation Program (VR), and Minnesota's Fenceline Peer-Support Network, he continues to milk cows and raise corn and soybeans without additional hired labor. Following rehabilitation, AgrAbility carried out an on-farm assessment to determine the barriers, and VR secured the necessary funding for the modifications and assistive technology, such as a utility vehicle, lowered tractor steps, and changes to his milking barn. The peer support network connected him with other farmers with disabilities who provided emotional support as well as practical advice.

Glamm sums up his experience this way: “The AgrAbility program has provided me with encouragement and technical assistance to continue my life goal of farming safely despite my disability and education and training so I might assist other farmers with or without disabilities.”
“The people that are farmers in this country, it’s in their blood... And for them to lose it is not just like they’re displaced temporarily, it really takes almost the soul of them... And to be able to get them back working in the earth... it really is important.”

Peggy Milliman, Maryland
from the video “AgrAbility: It’s About Hope”
Ultimately, AgrAbility’s activities are intended to impact the lives of individuals and families. While many methods are used to reach that goal, including educational events and networking with stakeholder groups, the most immediate results come through AgrAbility’s direct services to clients. AgrAbility staff members interact personally with those in need of help and provide practical assistance for addressing real-life issues.

AgrAbility staff members typically make a thorough assessment of the agricultural workplace to determine needed changes in technologies, structures, or work practices. They provide ongoing case management, coordinate services with State Vocational Rehabilitation Departments to acquire assistive technology and other modifications, and in some cases, provide business planning services, as seen in Debbie Curry’s story on this page.

Many AgrAbility Projects also maintain peer support programs that connect new clients with others who have successfully accommodated their disabilities in their lives and agricultural operations. These peer mentors are able to share both emotional support and practical tips on such topics as task modifications, equipment adaptations, and adjustments to activities of daily living.

It is estimated that more than 11,000 individuals have received personal, direct AgrAbility services over the years – that’s in addition to many more who have received less intensive assistance, like information and referral services. During the 2009-10 project year, 21 state and regional AgrAbility Projects provided direct services to a total of 1,304 clients. Their ages ranged from 5 to 95 years, with the average being 53.1 years. Eighty percent were male and twenty percent were female. The most common types of specified disabilities were back injuries, arthritis, joint injuries, orthopedic injuries, and spinal paraplegia. The most prevalent agricultural operations were field/grain crops, livestock, hay, and dairy.

While these statistics quantify various aspects of AgrAbility’s performance and client characteristics, they don’t directly reflect the actual impact on those served. Therefore, AgrAbility is making a concerted effort to measure impact, including a 2006 paper published in the Journal of Agricultural Safety and Health, which indicated that 88% of AgrAbility clients continued to engage in farm...
When CalAgrAbility first met Roosevelt Tarlesson, he had just reunited with his family after being separated for years, victims of the war that had ravaged their Liberian village. Despite having to deal with post-traumatic stress disorder (PTSD) and other disabilities, Roosevelt, his daughter, and her 23 children—including many adopted orphans—began to farm in Capay Valley, growing traditional African fare, which not only proved to be therapeutic but also filled a market niche.

Starting with next to nothing—donated seed, water buckets, a few free-range chickens—Roosevelt was connected by CalAgrAbility with Farm Service Agency, Natural Resources Conservation Service, and various nonprofits. Today, the family has an agricultural well, a tractor, deer fence, crops to harvest, and, with CalAgrAbility’s help, an ambitious new goal—to become a major organic African vegetable producer.

To continue these efforts to assess the value of AgrAbility’s services, the AgrAbility Evaluation Committee is developing a practical, resource-effective impact measurement system that can be used consistently by all the state and regional Projects.

By working with like-minded organizations, AgrAbility is able to significantly multiply its effectiveness, leveraging human and financial resources to accomplish the mutual missions of all involved parties. That’s why collaboration is at the heart of the Program.

Starting with the USDA’s grant requirements, the Program inherently involves collaborative relationships: land-grant university Cooperative Extension Services, which provide agricultural expertise, are mandated to partner with nonprofit rehabilitation-related organizations that provide disability and rehabilitation assistance.

Common among these AgrAbility Project nonprofit partners are Goodwill Industries and Easter Seals affiliates, Arthritis Foundation chapters, state Assistive Technology Act Projects, and Centers for Independent Living, which assist people with disabilities.

Collaboration also extends beyond formal, contractual relationships. Projects frequently engage in joint activities with groups such as county Extension offices, Farm Bureau, FFA chapters, community service groups, and university organizations, among others. For example, with support from NEC Foundation of America and the National FFA Organization, AgrAbility developed and distributed a curriculum on rural assistive technology to every FFA chapter in the U.S.

Collaboration with State Departments of Vocational Rehabilitation Services, commonly known as VR, is essential to AgrAbility’s success. While Projects provide many services to assist clients, they cannot provide direct funding or equipment to customers, but VR can. Some VR departments also fund small businesses that allow for self-employment outside traditional farming and ranching enterprises. Several Projects have formal contractual agreements with VR to provide consulting services.

At the national level, AgrAbility has forged partnerships with organizations such as RESNA (Rehabilitation and Assistive Technology Society of North America), APRIL (the Association of Programs for Rural Independent Living), Farm Services Agency (FSA), and various veterans groups, such as the Farmer Veteran Coalition.

AgrAbility’s National Advisory Team is also essential to the functioning of the National AgrAbility Project. This diverse group of professionals from around the country, involved in agriculture, rehabilitation, law, counseling, and other backgrounds, provides feedback and guidance to AgrAbility’s activities.
The AgrAbility Program, I can’t imagine not being involved with it in the capacity that I am because I just really have a lot of respect for it...I can go to bed at night and know that I’ve done a good thing for whatever the situation was that day.

Brenda Besse, Illinois
from the video “AgrAbility: It’s About Hope”
through education and research

AgrAbility uses a variety of educational methods to empower both clients and the professionals who work with them. Also, public awareness and marketing efforts educate the general public, particularly among those in the agriculture and rehabilitation communities, about the Program's mission and services.

One of the National AgrAbility Project's chief educational goals is to train the professionals who work with AgrAbility clients, and a major venue for accomplishing this is the National Training Workshop (NTW). Since 1991, 24 NTWs have been held in 21 different states or provinces. More than 1500 professionals and clients have gathered for these four-day events to explore a wide range of topics related to disability in agriculture, visit client farms, and tour various other agricultural enterprises.

In addition, state AgrAbility Projects also conduct many types of educational activities. For example, Indiana AgrAbility coordinated a series of 20 Caregiving in the Heartland workshops from 1998 through 2008 to support the caregivers of people with disabilities. The Colorado AgrAbility Project has held annual winter workshops since 1998 that have trained more than 450 farmers/ranchers and professionals.

AgrAbility Projects have also developed a wide range of educational materials in a variety of formats on many topics related to disability in agriculture. Examples include:

- Guides for professionals conducting worksite assessments for agricultural workers with disabilities
- A set of videos for farmers on caring for a diabetic foot and for a residual limb after amputation
- A Spanish-language fotonovela for Latino migrant/seasonal farmworkers on arthritis
- A series of 30 technical articles on various aspects of farming with a disability, such as farming with cerebral palsy, a spinal cord injury, or a visual impairment
- A guide for professionals seeking to establish peer support programs for agricultural workers with disabilities
- A resource kit that includes a workbook, video, and PowerPoint presentation for caregivers of farmers and ranchers with disabilities
Vermont

Kenny Young’s family has been farming by the Connecticut River in Vermont for many generations, and it was always his plan to continue that tradition. However, in winter 2006, those plans became uncertain when a snowmobiling accident left him paralyzed from the waist down. After less than two months of hospital-based medical care and rehabilitation, he came to believe that he could keep farming and earn his own way.

With help from Vermont Rural & Agricultural VocRehab and Vermont AgrAbility, Kenny and his family acquired a tractor with automatic shift and had two others retrofitted so he could hand-operate the brakes and clutch. VocRehab and Vermont AgrAbility helped provide hand controls and adaptive driving lessons. AgrAbility also provided leads on other types of equipment and put him in contact with farmers who had similar disabilities.

Today, using a manual wheelchair around home and a power chair around the farmstead, Kenny is involved in almost every aspect of the farming operation, including machinery maintenance and repair.

What would he tell someone newly disabled? “Don’t give up. I know a few people who just stay at home and don’t get out. They think their life is over. It’s not ... or it doesn’t have to be. There are hard times, I know – but there is a lot of opportunity out there. Go out and try it.”

Assistive technology (AT), i.e., devices that improve the functioning of people with disabilities, is an essential topic for AgrAbility customers and staff members. Therefore, a significant amount of effort has gone into finding and cataloging assistive technology devices that improve the productivity of agricultural workers with disabilities. Results of these efforts include printed manuals, CDs, and online databases, each listing hundreds of AT products.

While research is not funded through USDA AgrAbility grants, the field of study related to farming with a disability has matured to the point that findings from program activities have been presented at professional meetings and published in academic journals and conference proceedings. These important contributions provide an evidence-based foundation for continued development and enhancement of AgrAbility services. AgrAbility operates on the same premise as the Cooperative Extension Service: effective outreach programs are based upon not only hope and compassion, but also good science. This also reduces the need to reinvent the wheel or readdress basic issues, such as the design of tractor lifts and hand controls, causes of secondary injuries, the effects of arthritis on dairy farmers, and the prevalence of disability within the agricultural workforce.
Broader IMPACT

Apart from serving clients and the professionals who work with them, the impact of AgrAbility has extended to other areas of technology, agriculture, and rural life – even to other areas of the world.

Throughout AgrAbility’s history, many Projects have developed displays of assistive technology and exhibited them at rural events such as farm shows and county fairs. Millions of attendees at these events have been exposed for the first time to such items as heavy-duty outdoor wheelchairs, adaptive gardening tools, and modified hand controls for utility vehicles. AgrAbility has also been responsible for planting many seeds of innovation through university student service-learning projects related to enhancing the accessibility of agricultural workplaces. Projects such as mobile lifts for mounting horses, detachable hand controls for tractors, automatic gate openers, and truck-mounted person lifts have introduced students to a vision of how rehabilitation engineering can contribute to greater independence and productivity of people with disabilities. For example, the Life Essentials® tractor- and truck-mounted person lifts, the most widely used commercial lifts of their kind, were originally conceived and developed as student design projects.

Over the past 20 years, the AgrAbility Program has made strategic investments in “systems change” (i.e., shifts in community attitudes, policies, facilities, etc.) and the results have been significant. For example, efforts have been made to enhance the accessibility of rural libraries, county fairgrounds, and rural businesses, even before these changes were mandated by the Americans with Disabilities Act. Through the application of concepts such as “universal design,” many rural communities are much more accommodating. Other indicators of system changes from AgrAbility efforts include growth in the utilization of vocational rehabilitation services by farmers and ranchers and the increasing number of non-AgrAbility rehabilitation professionals who participate in AgrAbility sponsored events.

Soon after the AgrAbility Program was established, it began to receive interest from the international community concerning the potential of returning farmers with disabilities to work. Individuals from Sweden, Canada, Mexico, Ireland, and Australia have attended the National Training Workshop, while AgrAbility staff have presented at international conferences and workshops in Canada, Korea, Thailand, Italy, England, Ukraine, Sweden, China, Austria, and Australia that reached participants from over 50 countries. In addition, requests for AgrAbility resources have been received from many countries, including South Africa, Argentina, Iraq, Afghanistan, India, Philippines, Nigeria, and Nicaragua.
“AgrAbility has given me a chance to do some of the normal things I couldn’t do… Without AgrAbility, I would be more like in a bed asleep. But I don’t want to sleep!”

Philip Jones, Maryland
from the video “AgrAbility: It’s About Hope”
The world is a very different place than it was two decades ago when the AgrAbility Program became a reality as part of the 1990 USDA Farm Bill. Since then, the impact of the Americans with Disabilities Act has reached virtually every workplace, organization, and community in the U.S. More than ever, there is a growing expectation that persons with disabilities should be afforded the opportunity to succeed and maximize their potential to fully engage in activities of daily life – and maybe even dream the impossible.

The work, however, is not yet completed, especially in underserved rural communities that lack the resources and a critical mass of disability advocates to press for needed changes. Currently, farmers in over half of the country, including key agricultural states such as Florida, Illinois, Iowa, New York, Pennsylvania, and Washington, do not have access to a USDA-funded AgrAbility Project. Employment opportunities in rural communities are often extremely limited or nonexistent for people with disabilities, including returning veterans who have sacrificed greatly for their fellow citizens. Thousands of rural residents with disabilities have limited or no access to gas stations, grocery stores, banks, medical facilities, libraries, or Extension offices. Access to high-speed Internet services remains a distant dream where even good cell phone reception is not available. In some cases, individuals must travel inordinate distances to access rehabilitation services or repairs to essential assistive technology. In other cases, the barriers have nothing to do with travel times or technology, but rather with the attitudes of those who still see people with disabilities as “takers,” not “givers” – or worse yet, as people to be pitied.

The 20-year legacy of the AgrAbility Program is one of service, healing, encouragement, and hope. Though economic times are tough and resources scarce, if the Program continued for another 20 years, not only would the world be a different place, but rural America would be a richer and friendlier environment in which to live.
Accessing AgrAbility Services

Visit www.agrability.org to learn more about AgrAbility and find contact information for services available in your area. Individuals in states without AgrAbility Projects may still receive certain services through the National Project.

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Visit the AgrAbility YouTube channel www.youtube.com/user/NationalAgrAbility to view AgrAbility: It’s About Hope and other inspirational and educational videos.

Like the National AgrAbility Project on Facebook.
“Now I can get into the tractor, I can go out and do field work, which... it’s almost therapy for me. You get out there, and you feel like, ‘Hey, you know what, I’m back home.’”

John Enns, Oklahoma from the video “AgrAbility: It’s About Hope”