

AgrAbility Harvest

An ingathering of
helpful information
on disability in
agriculture

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inside

2 A CLOSER LOOK

Ag adaptations give this Missouri woman a new purpose

4 AT CORNER

ATVs, UTVs, and their many attachments and accessories

5 RESOURCES FOR SUCCESS

- Coming: new diabetes booklet for farmworkers
- Texas “BattleGround to Breaking Ground” program helps veterans
- Help for deaf and hard of hearing farmers
- New report on agricultural access lifts

6 PARTNER UPDATES

New SRAPs: Alaska, New Mexico, South Dakota

7 PATCHWORK

An Assortment of Sundry News Items

8 ON THE HORIZON

 **AgrAbility**

Cultivating Accessible Agriculture

1+1=3 may seem like bad math, but it illustrates a key aspect of AgrAbility’s work: collaboration. Synergy created by individuals or organizations working together often produces outcomes greater than the sum of what each entity can accomplish on its own. Thus, “bad math” can mean good results.

In addition to this synergy, other benefits of collaboration include sharing resources, overcoming obstacles, increased community awareness, and access to constituents and funding.¹

AgrAbility succeeds only through close relationships with other organizations. In fact, collaboration is built into the program’s core structure: our USDA grants require partnerships between land-grant universities and disability nonprofits.

AgrAbility’s partnership with USDA/NIFA is obviously one of its most important, and we are thankful to again be authorized by Congress through the new Farm Bill to be part of the USDA community. In addition, there are a host of other organizations that provide vital collaborative relationships: Goodwill, Easterseals, APRIL and centers for independent living, Cooperative Extension, AT Act Projects, Farmer Veteran Coalition, and Farm Bureau are just a few. Support from organizations like Farm Credit Services, Bayer, Deere & Company, and Life Essentials provide vital resources, as do foundations like CHS Foundation and NEC Foundation of America.

State vocational rehabilitation systems (VR) have long been among AgrAbility’s key partners. Since AgrAbility grants do not allow for the purchase of equipment or the provision of funding to clients, VR has been a main provider of assistive technology for many AgrAbility clients.

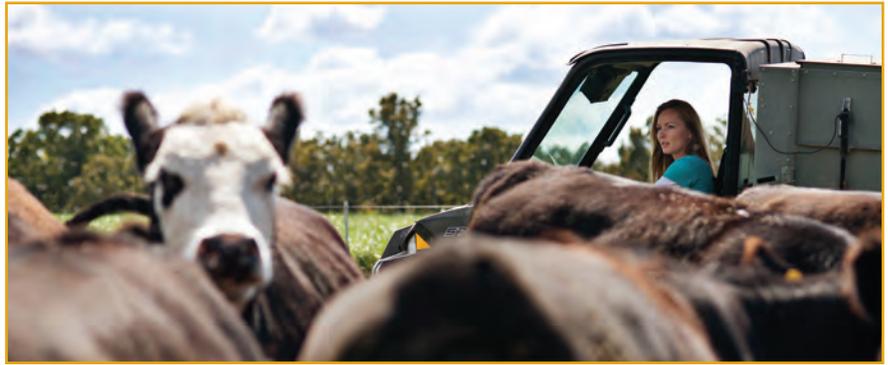
However, recent regulatory changes are making it more difficult for AgrAbility clients to obtain vital services from VR agencies. For example, some now require individuals to show that they can make at least minimum wage through their enterprises. However, such calculations can be difficult for farmers and ranchers when income is often directly reinvested into the operation.

In response to VR’s changes, some AgrAbility projects have been looking to other sources of funding to assist clients. The National AgrAbility Project is working with organizations like the Council of State Administrators of Vocational Rehabilitation to develop best-practice models that can provide a vision of how VR can both serve AgrAbility clients and meet regulatory mandates. Another hope is that state and federal legislators might amend regulations so that AgrAbility clients can continue to receive the services they need to support themselves, their families, and their communities.

¹ www.nutcache.com/blog/benefits-of-collaboration-between-organizations-and-teams



A Closer Look



Against the Odds

Ag adaptations give this Missouri woman a new purpose

by Cheryl Tevis¹

Eight years ago, Carey Portell's life shattered when a drunk driver collided head-on with her vehicle on Route 66, a few miles from her St. James, Missouri, home. It was two days after Christmas, and the 35-year-old was on her way to teach a Zumba class, with two of her daughters, Olivia, 12 and Mackenzie, 10, in the back seat of her Ford Taurus.

Carey suffered a fractured pelvis, crushed right ankle and dislocated left foot. After undergoing two surgeries, she remembers waking up to hear her eight-year-old son saying, "Thank you for staying alive, Mom." She says, "When I looked down, my legs were in external fixators. I knew it was bad, but I had no clue how long or how hard my recovery would be."

Climbing out of the depths

Confined to a wheelchair for almost two years, it was four years before Carey walked again without support. She had no feeling in her left foot during the first year. By the second year, shooting pains signaled the re-growth of nerves. Carey had 10 subsequent operations, fusing the joints in her ankles and bones in her pelvis.

The family received tremendous community support during Carey's recovery. "At times I had no idea what our children were going through," she says. "I'll never get that time back." Today the Portell children are ages 21, 19, 18 and 16.

Carey pushed herself to learn to walk with walking casts. Next, she focused on walking without support. "After four years, I felt like I had climbed an enormous mountain, and then I plateaued. I still had severe, permanent lower body injuries, poor balance, and delicate lower legs. I could only take about 3,000 steps a day."

Carey wore leg braces and lace-up boots 95% of the time, and she was unable to resume her former job. Yet she needed to remain productive. Before the



In the aftermath of the collision, her husband, Greg, and her father rushed to the scene. The damage to her vehicle was devastating, and once paramedics arrived, Carey's extrication was painstakingly slow. Greg had to leave when their daughters were taken by ambulance to the hospital. "The paramedic became my anchor," Carey says.

The girls were treated and released from the hospital within a day. The driver of the truck that collided with them was pronounced dead at the scene.

¹ Cheryl Tevis was senior risk management editor with *Successful Farming* magazine for many years. She is currently a freelance writer and editor with AgPerspectives, Inc. and president of Iowa Women in Agriculture.

accident, she had raised Corriente cattle, a roping breed. “We sold them as soon as I got out of the hospital,” she says. “I didn’t want to re-injure myself, but I loved working on the farm.” The Portells purchased 40 head of Angus. Greg continued to work fulltime off-farm, and do evening chores. But getting in and out of the truck multiple times daily was painful, and took a toll on Carey’s energy.

“I had the mindset that I’d do the work the way I’d always done it,” she says.

AgrAbility Opens a Door

Then, in 2014 Carey attended a University of Missouri conference for ag women, where she met Karen Funkenbusch, Missouri AgrAbility director. Funkenbusch contacted the state Dept. of Vocational Rehabilitation, and encouraged Carey to apply to become a client. “We taught her how to avoid falls, protect herself if she fell, and how to work safer and smarter,” Funkenbusch says. “We showed her how to make simple modifications, and use proper body mechanics and ergonomics.”

Funkenbusch saw that Carey was determined to succeed. With help from Missouri AgrAbility and the Dept. of Vocational Rehabilitation, Carey received funding to buy a Polaris Ranger UTV. “There’s a cube feeder on the back of the bed, making feeding much easier,” Carey says. “We installed a switch inside the cab to open the feeder door, so I just pull up beside the bunks and let ‘er rip.”

During calving season, she releases the lid of the feed bin on the UTV, and the cows gather to feed, allowing her to drive around them, and count cows and calves.

“The UTV keeps me from being bumped over by cows, and from flying calf hooves,” she says. “I don’t have to walk on ground with frozen hoof prints. It’s the most essential piece of equipment I’ve received.”

Today the Portells have 120 head of Angus on their 1,000 acres. “The cows give me a purpose,” she says.



Sharing Her Story

Despite her shyness, Carey gradually began to share her experience, and today she’s a motivational speaker who addresses the repercussions of drunk driving, and what it’s like to get back to agriculture after a serious injury.

“In the spring and fall, I speak at a lot of schools,” she says. From January to April, she talks with farm groups. “Farmers have a lot of pride, and often feel they’ll lose their independence if they use assistive technology,” she says. “Adaptations help keep farmers farming—they’ll just do the work differently.”

Although Carey has gained strength and mobility, she has end-stage traumatic arthritis. “I have moments when I feel 80 years old, but then I have the best days ever, and I stop and soak it all in,” she says. “I have to avoid doing so much that I hurt myself, but enough to keep my joints loose. It requires patience.”

She offers these words of advice to others:

(1) **Acceptance.** “Accept where you’re at now, and what’s possible in the future,” she says. Acceptance is the key to my happiness.”

(2) **Forgiveness.** “You must choose to forgive,” she says. “I do not excuse the drunk driver. I have to forgive him for my own sake. There’s no other way to heal.”

Carey says that this life-changing event brought her closer to God. “Nothing, absolutely nothing, happens in this world by mistake,” she says. “I don’t focus on what needs to be changed in the world as much as what needs to be changed in me. I think of all the lessons I’ve learned and the challenges I’ve gone through. It forced me to grow into the person I am today.”

Carey Portell is the scheduled keynote speaker at the 2019 AgrAbility National Training Workshop. Get more information at www.agrability.org/ntw

AT Corner

A COLLECTION OF ASSISTIVE TECHNOLOGY PRODUCTS IN AGRICULTURE

ATVs, UTVs, and their many attachments and accessories

For farmers and ranchers with mobility impairments, strength and endurance limitations, arthritis, and other problems, a utility vehicle (UTV) or an all-terrain vehicle (ATV) can be an invaluable work tool.

This article does not address the multitude of different models of conventional UTVs and ATVs; rather, it lists some handy attachments and accessories that can help agricultural workers with disabilities, and it references one wheelchair-accessible UTV. See many more related solutions at www.agrability.org/toolbox.



Strong Arm Lift for UTVs

With its multiple attachments, this driver's-side, bolt-on, hydraulic lift is designed to allow one to pick up and load all types of items (e.g., rocks, debris, hay, logs, feed, seed, fertilizer bags, even game animals) without having to leave the driver's seat. It's reportedly compatible with many Kubota, Deere, Kioti, and Polaris models. (Visit www.strongarmlift.com)

ATV/UTV-Mounted Calf Catcher

This is a wheeled cage for corralling a calf on pasture in order to treat it right there or transport it without an aggressive mother's interference. First towed behind then re-attached adjacent to the vehicle, the driver (via rope) latches open the spring-loaded gate, corrals the calf into the cage, then steps on a latch-release mechanism to close the gate. (Visit www.tinyurl.com/calf-catch)



Hand Controls for UTVs

These consist of a handle attached to the steering wheel, shafts running down to the gas and brake pedals, and a manual safety-lock system. For accelerating, the handle is eased back; for braking, it's pushed forward, which allows the driver to keep both hands on the wheel. The safety-lock will disable the acceleration function until released by a switch. (Visit www.suregrip-hvl.com)



Buddy Buggy Wheelchair-Accessible UTVs

Its joystick-operated rear lift and behind-the-wheel docking system allows wheelchair users to access and drive this all-electric UTV most anywhere off-road at speeds up to 17 mph. Two models are available: the 11-foot, 4WD, two-person Buddy Buggy with cargo bay and the 8-foot, 2WD, driver-only Buzz Buggy. (Visit www.buddybuggy.net)



Boom-Lift Dump Trailer for ATVs/UTVs

This tow-behind trailer has a crank-operated boom lift that can reportedly hoist (from either side) loads weighing up to 440 pounds. Its all-steel bed features a steep (35°) dump angle, winch-assisted dumping action, side stabilizers, removable end panels, pivoting hitch and jack stand, and tire-valve steel guards. (Visit www.drpower.com)



Tow-Behind Cultivators for ATVs/UTVs

Intended primarily for small-acreage plots, these tow-behind, two-wheeled implements accommodate various cultivating tools (e.g., shanks, shovels, tines, smooth or serrated discs) used to break up, ridge, or aerate the soil, smother weeds, etc. Most models feature levers to raise/lower the implement and adjust tool depth. (Visit www.tinyurl.com/UTVcultivators)



* The authors assume no liability in connection with any use of the products discussed and make no warranty (express or implied) in that respect. References to products are not intended as endorsements to the exclusion of others that may be similar.

Resources for Success



Coming: new diabetes booklet for farmworkers

California AgrAbility is collaborating with Dignity Health and the Western Center for Agricultural Health and Safety to develop a Spanish-language educational booklet (fotonovela) on farming and diabetes. California AgrAbility staff members often see program participants having diabetes in combination with arthritis. Although there are many resources on diabetes, few focus on farmworkers.

The fotonovela covers a variety of subjects, including a definition of diabetes, its signs and symptoms, and how to manage one's health while living with the disease. At the end of the fotonovela are examples of proper portions for each food group, healthy recipes, and an explanation of blood sugar measurements through the A1C test.

The publication is expected to be available later in 2019 and should be available through CalAgrAbility's website (<https://calagrability.ucdavis.edu/>).

New report on agricultural access lifts

For farmers with mobility impairments, lifts to get them into agricultural machinery can be a lifeline for continuing their livelihoods. Given the importance of these devices, the National AgrAbility Project (NAP) has produced the 12-page *Plowshares Technical Report*, "Agricultural Machinery Access Lifts: Design, Utilization, and Safety Issues." Topic areas include lift design and selection, lift styles and mounting types, and safety concerns. The publication can be downloaded in PDF format from www.tinyurl.com/agrability-plowshares. For information on obtaining printed copies, email the NAP at agrability@agrability.org.



Texas "BattleGround to Breaking Ground" program helps veterans

Texas A&M AgriLife Extension and staff from Texas AgrAbility are coordinating a program focused on helping veterans start agricultural businesses. Called "BattleGround to Breaking Ground," the initiative's goal is to increase the number of veteran and other new and beginning farmers/ranchers in Texas through several means: face-to-face and online educational training in farm management and production-specific agriculture practices; individualized educational planning and guidance to support diverse agriculture business interests; hands-on learning opportunities connected to online course content; and peer-to-peer mentor support. Additional benefits include help in applying for other programs and funding grants, disability-specific technical assistance, and access to a network of veteran farmers/ranchers and veteran support organizations.

The program, funded through the USDA/NIFA Beginning Farmer Rancher Development Program, recently welcomed its fifth cohort of veterans, who started with a three-day basic training session. For more information, email txagrability@gmail.com.

Help for deaf and hard of hearing farmers

The National AgrAbility Project has seen increasing interest from deaf and hard of hearing farmers, as several have been attending the National Training Workshop in recent years. One such individual, David Galyean of Washington state, has started a Facebook group called "Farming Association for Deaf, Hard of Hearing."

The group's stated purposes include educating deaf/hard of hearing farmers and gardeners about how to establish their enterprise and about how to plant, harvest, and preserve their crops. The group also seeks to encourage its members in their efforts to acquire the land, structures, and equipment necessary for successful agriculture.

To participate in the group, search "Farming Association for Deaf, Hard of Hearing" on Facebook and click "Join Group."





Partner Updates

“Diverse” might be the best word to summarize the newest AgrAbility projects that were funded in 2018. The group includes the country’s northernmost state and one of its southernmost. Cultural diversity is also at the forefront, with outreach to Latino, Native Alaskan, Native American, and veteran populations.



Photo: NRCS

Alaska

When you think of Alaska, mountains, wildlife, and snow probably come to mind: farming, not so much. Although there are only about 760 farms in Alaska according to USDA¹, agriculture is still important to the state’s economy, especially when fishing and logging are considered.

Alaska’s top agricultural commodities include greenhouse and nursery products, hay, dairy products, potatoes, and cattle/calves. The state also leads the nation per capita for farmers market growth,² and its fish catch is the most valuable among the 50 states.³

Alaska AgrAbility got its start, surprisingly, through Tennessee AgrAbility’s 2017-21 grant. Part of Tennessee’s activities was to introduce AgrAbility into Alaska using the Tennessee State University “Tennessee New Farmer Academy” as a model program to develop agricultural business skills. Alaska AgrAbility plans to adapt that program to its own climate, culture, and agricultural conditions.

One of every ten Alaskans is a veteran.⁴ Therefore, one of the Project’s key objectives is to assist veterans with disabilities in obtaining employment. A series of workshops are being designed to introduce agriculture/horticulture to veterans as a possible career choice, develop networking among veterans, and offer ways to help veterans manage stress.



Photo: National Park Service

New Mexico

New Mexico has great diversity in its geography, culture, and agriculture. Despite its somewhat arid climate, New Mexico is a leading producer of pecans, chili peppers, onions, and dairy products. Livestock production has been thriving in the state since the days of the early Western cattle drives.⁵

The state also has the highest percentage of citizens with Hispanic ancestry (48% as of 2015) and the second largest percentage of Native Americans (10.6% in 2016).⁶

New Mexico AgrAbility Project partners include New Mexico State University Extension, the University of New Mexico School of Medicine’s Division of Occupational Therapy, the New Mexico Technology Assistance Program, and Mandy’s Farm, an organization that serves individuals with developmental disabilities through agriculture.

Some of the Project’s target audiences include farmer veterans, Hispanics, women, and Native Americans. One of its novel initiatives is the establishment of a farmer cooperative model that is self-governed by people with disabilities for the purpose of developing and sharing resources.

Project Co-director Dr. Carla Wilhite of the University of New Mexico has served on the staffs of Oklahoma AgrAbility and Colorado AgrAbility and is current a member of the National AgrAbility Project Advisory Team.





South Dakota

The new AgrAbility project in South Dakota is one of the most unique that USDA has funded. Focused on the Pine Ridge Indian Reservation, the project seeks to address issues not traditionally focused on by AgrAbility, such as trauma, persistent poverty, and food insecurity. Pine Ridge is home to most of the Oglala Lakota Tribe, also known as the Oglala Sioux. In the Lakota language, the South Dakota AgrAbility Project is known as “Tatanka Ki Owetu,” meaning “The Renewal.”

As part of the effort to serve tribal members, three incubator-hub sites will be located across the reservation to provide landless beginning farmers with access to land to start farming. Each incubator site can also become a food hub where surplus produce can be aggregated and delivered to schools, elderly centers, food banks, and shelters across the reservation. The hubs will also have on site (or at least access to) assistive technology fabricators and equipment to develop AT locally, which reduces the costs and barriers facing new, disabled producers.

Another goal of the project is to produce new culturally sensitive AgrAbility-related materials or adapt existing materials so that they are appropriate for Native American audiences.

- 1 https://www.nass.usda.gov/Quick_Stats/Ag_Overview/stateOverview.php?state=ALASKA
- 2 <http://buyalaskagrown.com/learn/>
- 3 http://www.netstate.com/economy/ak_economy.htm
- 4 <https://www.washingtonpost.com/blogs/govbeat/wp/2014/11/11/what-each-states-veteran-population-looks-like-in-10-maps/>
- 5 <https://www.nasda.org/organizations/new-mexico-department-of-agriculture>
- 6 https://en.wikipedia.org/wiki/New_Mexico#Demographics

AgrAbility authorized through 2023, appropriated through September

The 2018 Farm Bill included continued authorization for AgrAbility during the five-year life of that piece of legislation. The only change related to AgrAbility was the clarification that veterans with disabilities are eligible for AgrAbility services if they, “*are engaged in farming or farm-related occupations; or are pursuing new farming opportunities.*” (emphasis added).

The current USDA budget, which includes funding for AgrAbility, is valid through September 30, 2019. AgrAbility has not been included in any of President Trump’s budgets; however, the program has been added back into the federal budget through the actions of the U.S. House and Senate appropriations committees.

Longtime AgrAbility staff member retires

Chip Petrea, Ph.D., retired from the University of Illinois in December 2018, having served as principal research specialist in agriculture, agricultural safety and health. Chip dedicated his career to agricultural safety research and awareness, and he served several roles for Illinois AgrAbility Unlimited. He has also been heavily involved in the International Society of Agricultural Safety and Health (ISASH).

Chip became involved with AgrAbility in the early 1990s as a graduate student at the University of Illinois, where much of his work focused on evaluation and program improvement. He eventually became the client service manager for Illinois AgrAbility Unlimited. Chip also served as an evaluation specialist for the National AgrAbility Project during 2008-2016.

Illinois AgrAbility Unlimited and National AgrAbility Project are grateful for Chip’s dedication throughout the years and look forward to his return to part-time work in the spring.



Chip Petrea (right) with AgrAbility Illinois clients

AgrAbility Harvest

Breaking New Ground Resource Center
Purdue University
ABE Building
225 South University St.
West Lafayette, IN 47907

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Purdue University is an equal access/equal opportunity institution.

ON THE HORIZON

Join AgrAbility on **March 25-28** in **Lincoln, Nebraska**, for the **2019 AgrAbility National Training Workshop**. In addition to the great breakout sessions, featured speakers will include AgrAbility client **Carey Portell**, featured on pp. 2-3 of this publication, and **“Gus” Gustafson**, a standout athlete



in high school in spite of having lost his right arm and shoulder in a tragic childhood farm accident. Mental Health First Aid training will be offered on March 25, and tours of various agriculture-related enterprises are scheduled for March 28.

Registration closes March 21, so don't wait!

2019

April 4-7	OTA Annual Conference & Expo	New Orleans, LA	www.aota.org
June 5-7	World Pork Expo	Des Moines, IA	www.worldpork.org
June 24-27	International Society for Agricultural Safety & Health (ISASH) Annual Conference	Des Moines, IA	www.isash.org
June 24-28	RESNA's Annual Conference	Toronto, ON	www.resna.org
July 7-10	ASABE Annual International Meeting	Boston, MA	www.asabemeetings.org
July 25-27	Amputee Coalition National Conference	San Antonio, TX	www.amputee-coalition.org
August 3-6	Disabled American Veterans National Convention	Orlando, FL	www.dav.org/events
August 6-8	Empire Farm Days	Seneca Falls, NY	www.empirefarmdays.com
August 27-29	Farm Progress Show	Decatur, IL	www.farmprogressshow.com
September 8-12	National Association of County Agricultural Agents (NACAA) Annual Meeting	Fort Wayne, IN	www.nacaa.com
September 10-12	Husker Harvest Days	Grand Island, NE	www.huskerharvestdays.com
September 17-19	Farm Science Review	London, OH	www.fsr.osu.edu
October 1-5	World Dairy Expo	Madison, WI	www.world-dairy-expo.com
October 15-17	Sunbelt Ag Expo	Moultrie, GA	www.sunbeltexpo.com
October 25-28	APRIL Annual Conference	Grand Rapids, MI	www.april-rural.org
October 30 - November 2	National FFA Convention	Indianapolis, IN	www.ffa.org

2020

January 7-9	Keystone Farm Show	York, PA	www.leetradeshows.com/keystone-farm-show
February 11-13	World Ag Expo	Tulare, CA	www.worldagexpo.com
March 19-20	ASHCA North American Agricultural Safety Summit	Las Vegas, NV	www.ashca.org