

# AgrAbility Harvest

An ingathering of  
helpful information  
on disability in  
agriculture

2018

Volume 9, Number 1

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**Sustainability** is one of the most used – and overused – buzzwords these days. It seems that everyone wants to add the “sustainability tag” to their product or endeavor to boost its credibility. Nevertheless, beyond the jargon we can find true value, and many facets, to the concept of sustainability.

In its most common usage, sustainability refers to maintaining a balance in the environment so that needs are met, both now and for future generations, in a way that resources are not depleted or overused. Good environmental stewardship is important to many of our AgrAbility clients and has historically been one of the hallmarks of the agrarian community.

The concept of sustainability also applies to AgrAbility's mission.

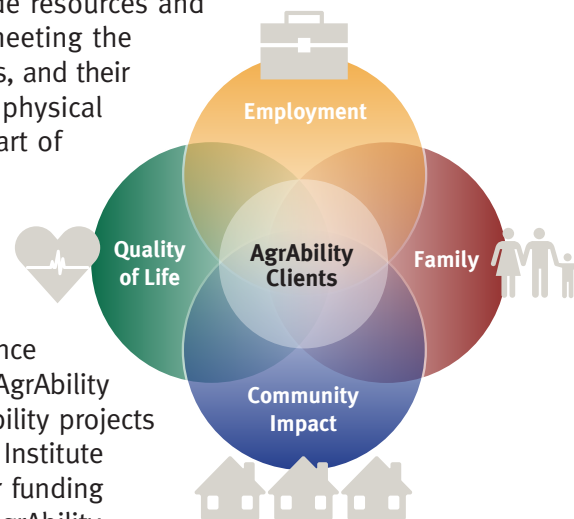
Our overarching goal is to provide resources and support for clients to continue meeting the needs of themselves, their families, and their communities, even in the face of physical or emotional challenges. A key part of this process involves promoting employment, income, health, and functionality that will sustain a viable lifestyle.

Sustainability also relates directly to AgrAbility's very existence as a program. Both the National AgrAbility Project (NAP) and the state AgrAbility projects rely primarily on USDA's National Institute of Food and Agriculture (NIFA) for funding to sustain their activities. While AgrAbility was included in the Obama administration's budget for several years, it was omitted in President Trump's budget for 2018. Thankfully for the program and its clients, AgrAbility was added back into the federal budget by both the House and Senate Appropriations Committees.

The financial sustainability of the AgrAbility program has been a topic of concern at many levels. USDA/NIFA added in its most recent proposal announcements the requirement that all projects include in their work plans activities related to sustainability. The NAP has responded by adding several sustainability-related initiatives to its work plan, including exploration of forming an AgrAbility foundation.

Finally, while financial *appropriations* are essential to AgrAbility's functioning, legislative *authorization* is the first step in sustaining the program's existence. AgrAbility exists because it was included in the 1990 Farm Bill and in every one since. However, continued inclusion is not guaranteed, particularly in today's challenging federal budget environment.

2018 is the year that the next Farm Bill is scheduled to be drafted. So all AgrAbility staff, clients, and other key stakeholders await with great interest the outcome of this federal bill-making process.



# A Closer Look

Outside the [farmer] box:

Options in production agriculture for non-traditional growers



Workers dig in at Smile Farms

Photo: Smile Farms

2 If you conjure up your image of the “typical” AgrAbility client, you might picture a dairyman with an amputation, a rancher with arthritis, or a row-crop farmer with a spinal cord injury. However, there are other options in production agriculture, especially in urban agriculture and the local food movement, for people with disabilities who don’t fit in the traditional “farmer” box.

## Jobs Needed

Employment statistics for people with disabilities can be pretty disheartening. According to the Bureau of Labor Statistics (BLS), the 2016 unemployment rate for people with disabilities was 10.5%, as opposed to 4.6% for those without disabilities. However, this only counts people who were actively seeking employment – not those who had given up or never started looking. When the BLS included all Americans (including those over 65), it determined that only 17.9% of people with disabilities were employed.

Employment issues are especially important for youth with developmental disabilities like autism or Down syndrome who are trying to make the transition from school to the workforce. Many struggle with finding the right niche for using their talents and supporting themselves.

## Examples Abound

A number of nonprofit organizations have expanded their existing services to people with disabilities to include agricultural enterprises. Other nonprofits have been launched specifically to provide agricultural training and employment for people with disabilities.

**Smile Farms** was started almost 20 years ago at Independent Group Home Living (IGHL), a disability services provider on Long Island, NY. The initial greenhouse was funded with assistance from Jim McCann, founder/executive chairman, and Chris McCann, president/CEO, of 1-800-Flowers.com. There are now five Smile Farms locations on Long Island employing more than 70 people with developmental disabilities.

In Australia, **Summerland House Farm**, part of a larger disabilities services organization, provides training opportunities to over 90 people with disabilities. Employment options include avocado and macadamia nut farming, tropical fruit packing, garden maintenance, nursery work, and retail/tourism services.

**Legacy Farms** in Leesburg, Virginia, provides agricultural vocational training for adults with autism and other disabilities. Focused mainly on developing work skills, Legacy Farms runs multiple sessions during the growing season to provide vocational training, social skills, and the “soft” skills needed to get and keep a job. It also works with its graduates to obtain employment in the community, including positions with partnering farms in the area.

There are also commercial agricultural enterprises that directly employ people with disabilities. One such business is **Withcott Seedlings** in Australia, which employs up to 125 staff with disabilities during peak times.





Preparation of greens at Lettuce Work  
Photo: ThisWeek Community News/Columbus, Ohio

## Family Matters

Several nonprofit organizations have been started by parents of children with disabilities to provide gainful employment in production agriculture for them and other youth with disabilities after they finished their formal education.

**Lettuce Work** in New Albany, Ohio, was started by Doug and Julie Sharp, the parents of a teenager on the autism spectrum. After consulting with Ohio State Extension, the Sharps determined that hydroponic lettuce produced in a greenhouse would be the best option for their enterprise. Lettuce Work now harvests about 300 pounds of greens per week that are then sold at approximately 25 stores in the Columbus area.

Two families of children with disabilities started **The Farmer's House** in Weston, Missouri. The organization partners with local schools to provide a vocational agriculture program and a market store that provides both employment and job skills training.

Chris Tidmarsh had earned college degrees in chemistry, environmental studies, and French. However, autism hampered his ability to function in traditional job settings. After reflecting on his options, Chris and his mother, Jan Pilarski, settled on an agricultural enterprise. With assistance from a legal aid clinic, Autism Speaks, Notre Dame graduate students, and a crowdfunding campaign, Chris and Jan launched **Green Bridge Growers** in Mishawaka, Indiana. A nonprofit, Green Bridge seeks to employ others with autism in a supportive environment.

And agricultural employment options aren't limited to rural areas. In Chicago, **Growing Solutions Farm** maintains a 1.2 acre vocational garden just west of downtown that includes more than 90 raised beds, a greenhouse, a small orchard, and a native planting area. The farm was started by Julie and Michael Tracy, who have a son with autism, as part of their Urban Autism Solutions program.

## Opportunities and Obstacles

State vocational rehabilitation (VR) agencies are always important links for people with disabilities seeking employment. These entities often partner with community organizations that provide job placement and supported employment. In addition, VR can sometimes provide funding to entrepreneurs with disabilities who are seeking self-employment in an agriculture-related field.

Organizations and individuals, including parents of children with disabilities, will likely face challenges if they decide to establish a production agriculture enterprise. But as examples show, it can be done. Factors to consider include the potential markets for the products raised, land acquisition, and knowledge of agricultural best-practices.

One source for navigating the process of establishing an ag-related enterprise, like those previously described, is the Chicago Botanic Garden's booklet *Gardening as a Social Enterprise: Including People with Disabilities*. It provides examples of successful ventures, business planning templates, and suggestions for funding, such as grants from the Kessler Foundation, which specializes in supporting non-traditional solutions that increase employment outcomes for individuals with disabilities.

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## AgrAbility Involvement

While serving people with disabilities in agriculture is the core of AgrAbility's mission, some states have made more significant strides than others in this area of non-traditional production agriculture. Ohio AgrAbility, for example, conducted a workshop in 2013 titled, "Building Independence through Agriculture for People with Developmental Disabilities." The Ohio project is planning more such events in the future and is developing training guides for individuals with disabilities on specific agricultural tasks, like vegetable harvesting.



Jan Pilarski discusses the  
Green Bridge Growers operation

For more thoughts on employment in agriculture for youth with disabilities, see Sierra Royster's commentary in the Partner Updates section (p. 6).

# AT Corner

## A COLLECTION OF ASSISTIVE TECHNOLOGY PRODUCTS IN AGRICULTURE

### Making your farm smarter

The “smart” revolution is upon us and all around us. Some of these innovations make life easier, while others seem to complicate things. However, there are clearly potential benefits for people with disabilities, especially those with mobility and vision impairments, in the smart technologies shown below.



#### AryMesh Wireless Farm Data Network

Using an Internet router and a system of hubs and receivers, the AryMesh system can reportedly provide a circle of WiFi up to 15 miles across. A special hub is available to bring the network to tractors, sprayers, combines, trucks, and even ATVs and utility vehicles. An optional solar/battery system provides power in remote locations. (Visit [www.ayrstone.com](http://www.ayrstone.com))

#### FieldNet Wireless Irrigation Network

This system allows one to control center-pivot irrigation systems, check status/position of each pivot, and monitor water usage via computer and smartphone. It can be used to remotely configure or adjust the entire system, network the pivot controls, and program the end guns, pivot speed, and chemical injection. Also provides pivot status updates. (Visit [lindsayfieldnet.com](http://lindsayfieldnet.com))



#### Smart Home Speakers

Amazon Echo, Google Home, and Apple HomePod can interface with a wide range of accessories to control home or shop devices such as lights, switches, outlets, thermostats, fans, air conditioners, locks, and overhead doors. They also respond to voice commands for information, like weather reports, or can record reminders, set alarms, and even tell jokes. (Visit the websites of the above companies)



Photo: [http://commons.wikimedia.org/wiki/File:Amazon\\_Echo.jpg](http://commons.wikimedia.org/wiki/File:Amazon_Echo.jpg)

#### Motion-Detection Security Cameras

These devices notify the homeowner or farm operator via video image or audio alarm on his electronic device (even TV screen) when movement is detected anywhere the cameras are set up to monitor. Their built-in sensors trigger instant mobile alerts, giving one the ability to know what's going on, even if not there. Subscriptions are required, which provide for video recording/storage and other features. (Visit [www.arlo.com](http://www.arlo.com), [www.ring.com](http://www.ring.com), and others)

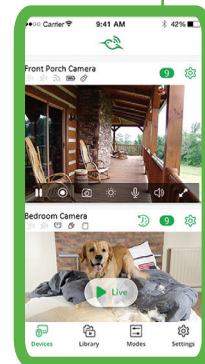


Photo: Alro.com

#### Phone-Works Measuring Tools

For farmstead or home improvement projects, this suite of measuring tools – including infrared thermometer, inspection scope, laser distance measurer, laser level, laser pointer, moisture meter, noise-suppression earphones, stud finder – records and transfers data to a smartphone. This allows one to capture HD images and videos of projects, create and access project files, add voice notes, etc. (Visit [www.ryobitools.com](http://www.ryobitools.com))



#### Seeing AI App

Utilizing artificial intelligence, this smartphone app for people with low vision provides audio descriptions of text, people, and objects that appear in front of the phone's camera. Among the tasks it performs are: speaking printed or handwritten text, interpreting product barcodes, describing objects and people in the immediate surroundings, and identifying currency bills. (Visit [www.microsoft.com/en-us/seeing-ai](http://www.microsoft.com/en-us/seeing-ai))



\* 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



## New report on farm lighting

The National AgrAbility Project (NAP) recently produced a 12-page *Plowshares Technical Report* titled, “**Lighting for Farmsteads and Self-Propelled Agricultural Machinery.**” Topic areas include types of lighting, characteristics of lights, where to position lights, and lighting for field equipment.

The publication can be downloaded in PDF format from [tinyurl.com/agrability-plowshares](http://tinyurl.com/agrability-plowshares). For information on obtaining printed copies, email the NAP at [agrability@agrability.org](mailto:agrability@agrability.org).

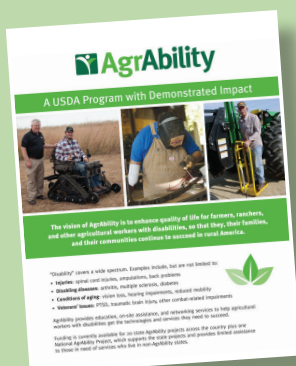


## Publication highlights AgrAbility's impact

**AgrAbility: A USDA Program with Demonstrated Impact**, a 4-page publication, contains a basic description of AgrAbility's services, key statistics about the program's outreach and impact, and a success story of a program client. Summarized are findings of a recent research study that indicates a significant increase in quality of life and independent living/working levels for AgrAbility clients as compared to farmers with disabilities

who had not received AgrAbility services.

This is an excellent publication to share with key stakeholders, such as rehabilitation and agriculture professionals, legislators, and potential AgrAbility clients. Download a PDF copy at [tinyurl.com/agrability-impact](http://tinyurl.com/agrability-impact).



## Resources for mental health and substance abuse

Agriculture can be an extremely stressful vocation, with pressures from commodity price fluctuations, uncertain weather conditions, potential machinery breakdowns, and many other factors. Thus, farmers, ranchers, and other agricultural workers are not immune to mental health challenges; in fact, the CDC reports that, in 2012, persons working in the farming, fishing, and forestry group had the highest rate of suicide overall.<sup>1</sup> In addition, the current opioid crisis is affecting rural areas severely.

The American Farm Bureau Federation (AFBF) and National Farmers Union (NFU) recently launched the “Farm Town Strong” campaign to raise awareness of the opioid epidemic and treatment options. Underscoring the seriousness of the issue, a statement on the campaign's website [www.farmtownstrong.org](http://www.farmtownstrong.org) reads, “While just under half of rural Americans say they have been directly impacted by opioid abuse, 74 percent of farmers and farm workers say they have.”

Extension professionals around the country are also responding to mental health and substance abuse needs. Among the efforts: Purdue Extension recently co-sponsored a statewide symposium to address the opioid crisis in rural Indiana; and North Dakota State University Extension maintains an extensive website on farm/ranch stress, [www.ag.ndsu.edu/farmranchstress](http://www.ag.ndsu.edu/farmranchstress), which includes resources for consumers and for professionals working with those in distress.

Mental Health First Aid (MHFA) is an eight-hour course that teaches laypeople how to identify, understand, and respond to signs of mental illnesses and substance use disorders. Information about the course and where to take it is available at [www.mentalhealthfirstaid.org](http://www.mentalhealthfirstaid.org). AgrAbility also included a webinar about MHFA in the 2018 Virtual National Training Workshop and archived the session at [www.agrability.org/online-training/virtualntw](http://www.agrability.org/online-training/virtualntw).

<sup>1</sup> <https://www.cdc.gov/mmwr/volumes/65/wr/mm6525a1.htm>

## Excellent overview of disability and agriculture

**Agriculture for Life: Health Promotion and Successful Farming and Ranching for Ag Families**, written by NAP consultant Carla Wilhite and former Oklahoma AgrAbility director Linda Jaco (with editorial assistance from Jan Johnston at Oklahoma State University), provides a wealth of helpful guidance, including checklists, relevant to both AgrAbility staff and clients. Sections include: moving forward and taking control; modifying your home, farm, or ranch; working with vocational rehabilitation; and many others. Download a PDF copy at [tinyurl.com/ag4life](http://tinyurl.com/ag4life).



## Partner Updates

### **APRIL – the Association of Programs for Rural Independent Living**



**Sierra Royster**, youth programs coordinator for APRIL and a NAP staff member, submitted the following commentary titled, “Planting Seeds for the Next Generation of Agriculture and

Disability.”

“We ask young people, ‘What do you want to be when you grow up?’ But before they can really answer that question, the adults and mentors in their lives must help them see all the possibilities.

“If we want to plant the seeds of agricultural careers for the next generation, we must first grow their interest and exposure at a young age. Do we encourage young people with disabilities to be involved in agriculture programs in their schools and communities like 4H, FFA, and other agriculture-related organizations? Are we providing mentors and images of agriculture that young people with disabilities can identify with? The answer is ‘Yes, and we can do more.’

“For instance, we can match young people with farm tasks that align with their interests and strengths while contributing to the overall welfare of the farm, garden, or ranch. When we can ask what their interests are, they may say that they like being outside and working with their hands. If so, would they like to be a horse groomer, animal shearer, maintenance worker on the farm, or perhaps a weed puller in the garden? Once they succeed at initial tasks and gain confidence, even more responsibilities can then be added. Building on an individual’s strengths when matched with their interests will only enhance their career opportunities.

“So, when we ask young people with disabilities for their ideas of what they want to be, we need to listen – and be open to changing the definition of what it means to be a part of agriculture as a person with a disability.”



*NTW tour of oyster farm*

### **Goodwill of the Finger Lakes**

For the 2016-20 National AgrAbility Project grant cycle, primary responsibility for organizing the National Training Workshop (NTW) has been assigned to the team from Goodwill of the Finger Lakes. Staff members JoBeth Rath and Tess McKeel put in many hours throughout the year to ensure that the annual four-day conference is a success.

After a stellar 2017 conference in Knoxville, Tennessee, the two began planning last summer for the 2018 workshop in cooperation with Maine AgrAbility and a committee of AgrAbility staff and outside professionals. The fruit of their labors was another highly successful NTW, this time in Portland, Maine, on March 19-22.

The conference boasted a record number of presenters, with 96, and 247 conference attendees, including approximately 65 farmers, ranchers, veterans, and students who received funding assistance from the National or state AgrAbility projects to attend.

Wounded warrior Travis Mills provided a powerful and inspirational testimony of resilience during his keynote address to encourage and challenge conference participants. While on a mission to locate and



*Travis Mills*

neutralize improvised explosive devices in Iraq, Travis unknowingly set down his backpack on such a device. The resulting explosion resulted in the amputation of both Travis’ legs, his entire right

arm, and much of his left arm. In spite of his severe injuries, Travis learned to function with prosthetic limbs and even completed a 5K run soon after discharge from rehab.

The Goodwill team has already started planning for the 2018 NTW, with the anticipated host state being Nebraska.





## **AgrAbility loses “an original”– Don Skinner**

Don Skinner of Pawnee, Illinois, passed away on September 15, 2017. He farmed with a spinal cord injury for decades and was a strong supporter of AgrAbility. Bob Aherin, project leader for Illinois AgrAbility Unlimited, said of Don, “His testimony before Congress and his support of developing an AgrAbility program in Illinois in the late 80s helped form the program. He served as chair of our Illinois AgrAbility advisory committee for many years and as honorary chair most recently. Through Don’s foresight, advice, and support, thousands of farmers have benefited from assistance through the program. Everyone who knew him was aware of his support of AgrAbility and that he liked to laugh and loved a good practical joke. He was a great mentor to me and those of us directly involved with the program. We can never replace him and he leaves a legacy of support in seeking ways to help farmers and farm workers who were dealing with some type of disability.”

Don had also served as a member of the National AgrAbility Project Advisory Team, and some of his early tractor lift designs can still be found in *The Toolbox Assistive Technology Database*.

## **AgrAbility receives NBFA partner award**

The National AgrAbility Project and its special populations outreach coordinator, Chuck Baldwin, were honored by the National Black Farmers Association (NBFA) with its Partner of the Year Award. NBFA stated, “AgrAbility has been a consistent partner in helping to provide Black Farmers with technical assistance to overcome obstacles facing their daily operations.” The award was presented during the 27th Annual National Black Farmers Conference held November 3-4, 2017 in Hattiesburg, MS.



Chuck Baldwin (center) with Dr. John and Kara Boyd of NBFA

## **AgrAbility reaches out to Native Americans**



The National AgrAbility Project held its first-ever workshop hosted by a Native American 1994 land-grant institution on September 13-14, 2017, at Little Big Horn College in Montana. It was attended by 57 participants, primarily Native Americans.

AgrAbility also participated in the 2017 First Americans Land-grant Consortium (FALCON) Annual Conference in Arlington, Virginia, on November 3-6, 2017. In total, there are 37 of the 1994 Institutions.

The National AgrAbility Project is planning another Native American workshop in 2018, this one at Pine Ridge Reservation in South Dakota, in cooperation with South Dakota State University.

## **Fighter to Farmer Contest honors veterans**

*Successful Farming* magazine and Grasshopper Mowers have teamed up to provide tangible help for two veterans each year through the Fighter to Farmer Contest. The winners, chosen through a nomination process, receive \$6,000 toward the purchase of a new Grasshopper mower and \$4,000 cash. One of the two veterans must have a service-connected disability, and that individual also receives a consultation from AgrAbility and \$5,000 toward the purchase of adaptive equipment or other services.

Chase Crawford of Minnesota, who was injured in combat in Iraq, was the 2017 winner of the contest for veterans with a disability.



Chase Crawford and family

Photo taken by David Ekstrom for *Successful Farming* magazine

# AgrAbility Harvest

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

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The National AgrAbility Project is a partnership between:

**PURDUE**  
UNIVERSITY

  
Breaking New Ground

  
Goodwill  
of the Finger Lakes

  
APRIL  
Association of Programs for Rural Independent Living

  
Colorado  
State  
University

  
WASHINGTON STATE  
UNIVERSITY

Purdue University is an equal access/equal opportunity institution.

## ON THE HORIZON

The annual **AgrAbility National Training Workshop (NTW)** is one of the program's most important events, drawing participants from many states and often other countries. The 2018 NTW was held March 19-22 in **Portland, Maine**, and a total of 247 attendees, speakers, farmers, ranchers, veterans, students, and exhibitors participated. See page 6 for more about this year's conference.



**Nebraska** is the tentative location for the 2019 NTW. Check back to [www.agrability.org](http://www.agrability.org) later this year for the date, specific location, and the call for presentations and exhibitors.



### 2018

April 19-22	<b>AOTA Annual Conference &amp; Expo</b>	Salt Lake City, UT	<a href="http://www.aota.org">www.aota.org</a>
June 6-8	<b>World Pork Expo</b>	Des Moines, IA	<a href="http://www.worldpork.org">www.worldpork.org</a>
June 24-27	<b>International Society for Agricultural Safety &amp; Health (ISASH) Annual Conference</b>	Halifax, Nova Scotia	<a href="http://www.isash.org">www.isash.org</a>
July 13-15	<b>RESNA Annual Conference</b>	Arlington, VA	<a href="http://www.resna.org">www.resna.org</a>
July 29-August 1	<b>ASABE Annual International Meeting</b>	Detroit, MI	<a href="http://www.asabemeetings.org">www.asabemeetings.org</a>
July 14-July 17	<b>Disabled American Veterans National Convention</b>	Reno, NV	<a href="http://www.dav.org/events">www.dav.org/events</a>
July 12-July 14	<b>Amputee Coalition National Conference</b>	Tucson, AZ	<a href="http://www.amputee-coalition.org">www.amputee-coalition.org</a>
July 23-26	<b>International Rural Nursing Conference</b>	Nashville, TN	<a href="http://www.training.ua.edu/irnc">www.training.ua.edu/irnc</a>
July 29-August 2	<b>National Association of County Agricultural Agents (NACAA) Annual Meeting</b>	Chattanooga, TN	<a href="http://www.nacaa.com">www.nacaa.com</a>
August 7-9	<b>Empire Farm Days</b>	Seneca Falls, NY	<a href="http://www.empirefarmdays.com">www.empirefarmdays.com</a>
August 28-30	<b>Farm Progress Show</b>	Boone, IA	<a href="http://www.farmprogressshow.com">www.farmprogressshow.com</a>
September 11-13	<b>Husker Harvest Days</b>	Grand Island, NE	<a href="http://www.huskerharvestdays.com">www.huskerharvestdays.com</a>
September 18-20	<b>Farm Science Review</b>	London, OH	<a href="http://www.fsr.osu.edu">www.fsr.osu.edu</a>
October 2-6	<b>World Dairy Expo</b>	Madison, WI	<a href="http://www.world-dairy-expo.com">www.world-dairy-expo.com</a>
October 16-18	<b>Sunbelt Ag Expo</b>	Moultrie, GA	<a href="http://www.sunbeltexpo.com">www.sunbeltexpo.com</a>
October 5-8	<b>APRIL Annual Conference</b>	Denver, CO	<a href="http://www.april-rural.org">www.april-rural.org</a>
October 24-27	<b>National FFA Convention</b>	Indianapolis, IN	<a href="http://www.ffa.org">www.ffa.org</a>

### 2019

February 12-14	<b>World Ag Expo</b>	Tulare, CA	<a href="http://www.worldagexpo.com">www.worldagexpo.com</a>
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 **AgrAbility**  
Cultivating Accessible Agriculture

800-825-4264  
[www.agrability.org](http://www.agrability.org)