

AgrAbility Harvest

An ingathering of
helpful information
on disability in
agriculture

2021

Two remarkable years would be an understatement in describing 2020 and 2021 for AgrAbility – and the rest of the world.

When COVID struck and restrictions were first instituted, AgrAbility was less than two weeks from its flagship event, the National Training Workshop (NTW), which had been scheduled for Madison, Wisconsin, in March 2020. Quick action was required, and the staff was able to reschedule for November. However, that too eventually had to be canceled, so many of the planned sessions were moved to virtual format for presentation in 2021 (see p. 5). As you might imagine, staff members had their hands full dealing with hotel contracts, travel reimbursements, and other issues related to canceling such a large event.

Like the rest of the world, AgrAbility had to make alternate (usually at-home) working arrangements. However, since one of our program's primary functions is to work with clients on their farms or ranches, staff again had to innovate. State AgrAbility projects began conducting virtual farm visits through a variety of means, including FaceTime, Zoom, and the use of satellite imagery to better understand the layout of their clients' operations.

The National AgrAbility Project (NAP) also produced resources to assist AgrAbility staff members and clients in facing the pandemic. The *AgrAbility Updates* newsletter was launched to provide increased communication, encouragement, and resources for staff, and a special web page of COVID-related resources was developed. NAP additionally recorded "virtual new staff training" sessions to compensate for lost sessions at the NTW and coordinated the inaugural AgrAbility Virtual State Fair (VSF) to make up for lost public awareness opportunities at the state and national levels. The VSF reached more than 29,000 individuals on Facebook and had over 70,000 Tweet impressions.

2021 is also a remarkable year for AgrAbility because it marks the program's 30-year anniversary. First authorized in the 1990 Farm Bill, AgrAbility began functioning in 1991 with eight state and regional "demonstration projects" and the NAP. With a slight increase in funding this year, the program is scheduled to have 21 state projects starting in September, in addition to the NAP.

AgrAbility and USDA are planning to acknowledge the 30-year milestone through multiple activities, including a celebration event (hopefully in-person), a commemorative publication, and a social media campaign.

Lastly, 2021 is significant because the competition for the NAP grant was held, and Purdue University's Breaking New Ground Resource Center was awarded the project for another four-year cycle. The Purdue team, along with its subcontractors and non-funded partners, looks forward to continuing to provide solid core services plus some innovative initiatives (to be described in future editions of *AgrAbility Harvest*).

 AgrAbility



1991-2021

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A Closer Look

Harvest of Hope

by Cheryl Tevis¹

Mike Koepke was 13 when he began helping his dad on the family farm near Cut Bank, Montana. “My older brother told me he wasn’t coming back after college, so I decided to make agriculture my life,” he says.

In 1982 he and his wife, Sheila, graduated from college, and started farming. Over the next 31 years, the Koepkes grew their business, raised a family of three, and looked forward to farming for as long as they enjoyed it.

One foggy October morning in 2013, this goal became more challenging. Mike had harvested the spring wheat and signed a contract to sell it. “I took Sheila to work, and headed home to start hauling,” he says.

Mike was driving their 2012 Ford Fusion when suddenly he saw headlights coming at him in his lane. A big belly dump semi-truck hauling gravel had pulled out to pass a 4-wheel-drive tractor. He braced for impact, as the semi hit him head-on.

“Pieces of the car were disintegrating, metal and plastic were twisting and breaking apart around me,” he says. “I cried out, ‘Oh, God. . . Oh, God!’ I asked for His help.”

Trapped in the vehicle, Mike dialed 911 three times, but the line was busy. The sheriff’s line was busy, too, but he reached Sheila. By the time a co-worker rushed her to the scene, the sheriff, fire trucks, and ambulance had arrived.

“Thank goodness, he was driving a vehicle with safety features, and wearing his seat belt,” Sheila says.



Mike with son Tyson in truck cab

The fire department used the Jaws of Life to extricate Mike, and he was taken to Northern Rockies Medical Center in Cut Bank. X-rays didn’t indicate life-threatening injuries. “I was told, ‘If you can stand for five minutes, you can go home,’” he says.

But as Mike tried to swing his legs off the exam table, he felt his pelvis abruptly shift. A CT scan revealed it was shattered. He was taken by ambulance to Great Falls, where he had surgery to insert a plate and eight screws. The torn ligament in his left leg, and an injured right wrist would need to heal.

Mike was hospitalized for nine days. At home, he began the slow process of recovery. “I couldn’t make it up two steps into the house with a walker—I had to hop,” he says. Sheila adds, “Every day, he got up, put his clothes, shoes and socks on, and hopped to a living room chair. He never stayed in bed. Ever.”

Three months after the accident, the Koepkes’ son Drew was married. “We hid Mike’s crutches in the wedding pictures,” Sheila says.

“I had to learn to walk again,” Mike says. But physical therapy three days a week required a team effort. Sheila was working full-time, so their children: Tyson, a molecular plant scientist at Washington State University, Ashley, an associate registrar at the University of Providence in Great Falls, and Drew, an information technology specialist who lives in Missoula, adjusted their schedules so they could take him. And that’s not all.

“My kids taught me to drive again,” Mike says. Sheila adds, “They didn’t tell me—I was at work.”

He returned for surgery on his wrist in June, and a steel plate and nine screws were inserted.

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.



Taking care of business

In the meantime, the farm work couldn't wait. The Koepkes farm about 2,000 owned and crop-shared acres 20 miles south of the Canadian border. The immediate need was to hire trucking to deliver their high protein spring wheat for export to Pacific Rim countries.

Their malt barley goes to MALTEUROP in Great Falls. "We feed the world, and try to quench its thirst," Mike says.

Adjustments also were required on the home front: the Koepkes' century-old farmhouse. "There was one small bathroom, with a toilet, sink, and tub," Sheila says. "Mike used a transfer bench and a hand-held shower head—but it didn't work for what he needed." In January 2014, their remodel featured an accessible toilet, walk-in shower, safety bars, and built-in bench. "It made a safe place for him to shower independently while I was at work," she says. "Small changes can be big."

Mike progressed from crutches to a cane. "I still was having balance issues," he says. He also noticed difficulties with dexterity and calculations.

It was 2016 before they recognized the cause. "We lived in a place of shock and trauma for a long time," Sheila says. "We just got used to the way things were."

After tests revealed that Mike had suffered traumatic brain injury (TBI), he went to speech and memory therapy. "Mike never felt sorry for himself," Sheila says. "We just kept trying to move forward."

In the spring of 2014, the Koepkes hired a neighbor to plant. "My goal was to harvest it myself," Mike says. "The kids came home weekends or took time off to help us do it."

"Bad things can happen to good people. We all go through challenges in life."

In February 2015, Mike's torn ligament led to a total knee replacement. Again, he hired the planting and spraying.

In 2016, Sheila's brother discovered the National AgrAbility Project (www.agrability.org). Bill Field, National AgrAbility director, Purdue University and Bill Begley from Life Essentials, a mobility equipment company, visited the Koepkes to share information about assistive farm equipment and adaptations.

"That was our best day in three years," Sheila says. "We were struggling to get back to normal—we just didn't know how."

Thanks to AgrAbility, Mike began listening to music as therapy, and practicing repetitive phrase and word exercises. AgrAbility also offered tips for reorganizing his farm shop.

In 2019, the Koepkes traveled to Maine for their first National AgrAbility Training Workshop, where they found an encouraging sense of kinship, and useful workshops.

In 2020, Sheila retired after 20 years as a Farm Service Agency program technician. "I needed a job, so I was up at 6 a.m. the day after," she says. Mike handled the spraying, with help from Drew, Tyson, and Sheila.

The Koepkes recently welcomed the birth of their first grandson. "Mike has come a long way," Sheila says. "We're still looking at adaptive equipment, as our budget allows. We didn't realize there's so much hope out there."

She adds, "I don't think I can convey how much better AgrAbility has made our lives. Bad things can happen to good people. We all go through challenges in life."



Front: son Drew, Sheila, grandson Kael, Mike, daughter-in-law Selene. Back: daughter-in-law Anne Marie, son Tyson, daughter Ashley.

AT Corner

A COLLECTION OF ASSISTIVE TECHNOLOGY PRODUCTS IN AGRICULTURE

Low-tech agricultural AT can be defined as any device that can be fabricated with readily available parts and materials, simple to use with minimal training, inexpensive to create, and practical for farm use. Below are just a few examples of products, both commercially available and homemade, that fall within that definition.

NAP is also planning to add a new feature to *The Toolbox* that specifically identifies low-tech AT within the database.



Forearm Lifting Straps

are long, padded straps designed to allow two people to lift and carry a heavy, bulky object more easily. The strap, which is run from under the object up to and fastening

around each forearm, creates a 45° angle that maximizes lifting/carrying strength by redirecting the object's weight from the arms to the legs. Straps can be adjusted to accommodate the object's and persons' height. (Visit www.forearmforklift.com)

Walk-In Livestock Feeder

This type of feeder extends from the pen fence into the pen, with hog panels blocking off the back end; and it's wide enough so that one can enter carrying feed buckets. The fences on both sides are gapped in such a way that the hogs can get to the feed but not into the feeder. This design would work for other types of penned livestock.



Homemade Single-Arm Gardening Equipment (SAGE)

includes standard hoes, shovels, rakes, pole pruners, etc. that are modified to accommodate the needs of persons with one arm or limited mobility on one side of the body. Utilizing a support belt with a pivot bolt plus a handle extender (made of items available from any hardware store), these adapted tools improve posture while reducing stress of the wrist and back. (Visit www.rgat.net)



Fold-Up Added Step (Online Plans)

An extra step below the bottom one on a tractor or combine can help reduce strain on the knees when climbing on/off the machine. These plans include a list of the likely on-hand items needed to build the step plus text and photos on how it's made and mounted. So as not to pose a clearance problem while driving, the step is flipped up and down via a rope. (Visit tinyurl.com/added-step)



Hay-Bale Dolly (Online Plans)

Carrying hay bales can be a struggle for those with back, leg, and arm impairments. With this dolly, one can both lift up and transport a single bale with reduced effort. The plans include a list of the supplies needed, text and photos on how to assemble it, and a video showing how it works. (Visit tinyurl.com/hay-dolly)



Raised Garden Beds

Although the commercially produced bed pictured here is corrugated steel, garden beds can be constructed of many types of material (often already on-hand), such as wood, bricks, pieces of sheet metal, (even old refrigerators or chest-type freezers), and can be of any dimension and height. (Visit tinyurl.com/gardening-raised)



* 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

NTW: changes create opportunities

Necessity is the mother of invention, and like many programs, AgrAbility found that the pandemic necessitated many innovations and “inventions.” Such was the case with the National Training Workshop (NTW), which is normally an “in-person-only” event. After the NTW was first postponed and then ultimately cancelled for 2020 – and with an uncertain prognosis for an in-person 2021 NTW – AgrAbility’s NTW committee determined that the best option was to move previously-accepted 2020 presentations to virtual presentations in 2021.

The result has been an expansion of AgrAbility’s educational impact to those who would not have participated in the in-person event. Thus far, more than 650 people have registered for the NTW virtual sessions, and 22 weekly presentations have been conducted with an average attendance of 70, far exceeding the typical attendance for an in-person session. In addition, the sessions have been recorded and archived at www.agrability.org/online-training/archived for continued on-demand use long into the future.

While AgrAbility still believes that an in-person NTW is essential for face-to-face networking, team building, and hands-on education, pandemic-induced technology adoption has opened new options for expanded outreach.

Tractor seat design

- Review this photo!
- The main take-away:
 - Every square inch of the operator station is **DESIGNED**
 - Every push/pull, reach, grip, knob turn, and surface is a **VARIABLE**
 - Change one variable, what are the un-intended consequences?
 - Approach changes with common sense and understanding of dynamics
 - **We are not tractor seating experts.**

Dr. Carla Wilhite presents an NTW virtual session

FRSAN expansion

In the last edition of *AgrAbility Harvest*, we mentioned that USDA had invested \$10 million in 2019 to fund four regional Farm and Ranch Stress Assistance Network (FRSAN) centers that cover all U.S. states and territories. During 2020, USDA greatly enhanced the network’s potential to provide stress-related assistance to agricultural workers by committing \$28.7 million to four regional FRSAN centers for three-year grants:

- North Central Farm and Ranch Stress Assistance Center: Engaging Programs to Support Producer Wellbeing – University of Illinois, Urbana, IL: www.farmstress.org
- Building an Inclusive and Comprehensive Network for Farm and Ranch Stress Assistance in the Northeast – National Young Farmers Coalition, Hudson, NY: www.youngfarmers.org/frsan-ne-about
- Farm and Ranch Stress Assistance Network: Southern Region – University of Tennessee, Knoxville, TN
- Western Regional Agricultural Stress Assistance Program – Washington State University, Pullman, WA: www.farmstress.us

Each center comprises a coalition of organizations, including state Cooperative Extension agencies and various ag-related organizations, to deliver its services. Core services for each include

- farm telephone helplines and websites
- training, including training programs and workshops
- support groups
- outreach services and activities, including the dissemination of information and materials.

NAP has established a FRSAN page at www.agrability.org/resources/frsan with contact information and more for the centers.

HOME ABOUT EVENTS CALENDAR CLEARINGHOUSE FUNDING CONTACT MEMBER LOGIN

WRASAP
Western Regional Agricultural Stress Assistance Program

WE'RE HERE TO HELP

We believe in working together to cultivate rural resilience for all, including farmers, ranchers, and other agriculture workers as they navigate increasing stress.

ABOUT WRASAP RESOURCE CLEARINGHOUSE FUNDING OPPORTUNITIES

New AgrAbility project grants

In addition to the new National AgrAbility Project grant mentioned on p. 1, the following state projects also received four-year grants: AgrAbility for Pennsylvanians, Indiana AgrAbility, Ohio AgrAbility, and Tennessee AgrAbility Project. Congratulations and best wishes to all these project teams!



Partner Updates

Osteoarthritis Action Alliance

Arthritis is consistently one of the top three disabling conditions reported by AgrAbility clients. The disease can affect many joints in the body with a wide range of symptoms, and thus, its impact on farm-related tasks can be profound. On a larger scale, arthritis affects one of every three adults in rural areas, and approximately half of rural residents with arthritis report experiencing arthritis-attributable activity limitations.

These and other factors make Osteoarthritis Action Alliance (OAAA) a natural partner for the National AgrAbility Project. Formed in 2011, OAAA is a national coalition of more than 30 concerned organizations mobilized by the Arthritis Foundation and the Centers for Disease Control and Prevention. The Alliance is headquartered at the Thurston Arthritis Research Center at the University of North Carolina School of Medicine.

OAAA became a NAP partner in September 2020 to begin exploring ways that AgrAbility clients could receive enhanced resources and support for arthritis-related issues. For the current project year, the Alliance is scheduled to focus on the following activities:

- Development and delivery of a pilot survey to begin exploring the needs of agricultural workers regarding arthritis education content and preferred media
- Preparation and submission for publication (in a major trade journal or magazine for agricultural workers) of at least one article about arthritis and symptom management strategies targeting the agricultural community
- Identification of additional funding opportunities, including development and submission of at least one grant application to procure funding to support future/ongoing collaborative efforts between the OAAA and the NAP.

During NAP's 2021-25 grant cycle, OAAA plans to build on these activities and add others, such as webinars and participation at the NTW. Visit www.oaaaction.unc.edu for more information about the Alliance.



AgriSafe Network

Anyone involved with agricultural safety has likely encountered resources or events from AgriSafe Network. Founded in 2003 by rural nurses, the organization focuses on training professionals to care for agricultural producers and on assisting the producers themselves. AgriSafe's frequent webinars feature experts from around the country to provide health and safety training. Many of its activities offer continuing education credits, including the Nurse Scholar program from which participants can receive a certificate and 20 hours of continuing nursing education.

"Total Farmer Health" is a theme of AgriSafe's work that emphasizes both healthy bodies and healthy minds. As part of its initiatives, AgriSafe has made significant investments in addressing stress-related issues. These include training for professionals to aid them in recognizing signs and symptoms of stress, identifying people who may need mental health support, and connecting those people with resources for information and care. AgriSafe also provides training and resources for combating the opioid epidemic.

During the 2021-25 grant period, AgriSafe plans to promote AgrAbility resources and services through its extensive network of rural health professionals. AgriSafe staff plan to participate as presenters at the NTW and serve on the National AgrAbility Advisory Team. In addition, the organization is scheduled to provide training to both national and state AgrAbility project staff members on the topic of opioid misuse prevention.

For more information about the AgriSafe Network, and to access its webinars, courses, and resource library, visit www.agrisafe.org.



Protecting the People Who Feed the World

Hellos

For the 2021-25 grant cycle, the National AgrAbility Project is welcoming new faces.

Ned Stoller will serve as the assistive technology (AT) specialist. In that role, he will help with developing The Toolbox, act as liaison to the Rehabilitation and Assistive Technology Society of North America (RESNA), and address AT questions from the state AgrAbility projects. Ned is already functioning as NAP's consultant to develop and document low-tech AT for farmers worldwide and to help develop a low-tech section of The Toolbox.



Ned Stoller

Ned is an agricultural engineer and RESNA-certified Assistive Technology Professional. He has been the engineer for Michigan AgrAbility since 2003 and is the developer of DisabilityWorkConsulting.com.

Kimber Nicoletti-Martínez will serve as Latino outreach coordinator. She has extensive experience in working with Latino migrant/seasonal farmworkers and was named 2018 National Social Worker of the Year by the National Association of Social Workers. Her participation on the NAP should greatly enhance the project's outreach to Latino agricultural workers and organizations that serve them.



Kimber Nicoletti-Martínez

Since 2008, Kimber has been director of Purdue University's MESA program (Multicultural Efforts to end Sexual Assault), a statewide initiative committed to preventing sexual violence in multicultural communities and other underserved and underrepresented populations in Indiana.

Ed Sheldon has been working with NAP for more than a year in a variety of capacities and will function as its outreach coordinator during the next grant cycle. He will help coordinate outreach activities, assist with resource development, promote AgrAbility services to Cooperative Extension staffs, and support NAP's programming efforts for underserved populations and veterans. He also handles all calls to NAP's toll-free helpline.



Ed Sheldon

Ed has extensive agricultural and educational experience, having served as a county Purdue Extension agricultural educator and as a senior staff member in the Indiana State Department of Agriculture.

Goodbyes

Although gaining new staff, some long-time AgrAbility staff members retired recently.

Dr. Bob Aherin began his agricultural safety and health career at the University of Illinois in 1984 and became the project director of Illinois AgrAbility Unlimited when the program started in 1991. Throughout his decades of service, Bob distinguished himself as a leader not only within AgrAbility but also within the worldwide agricultural safety movement. In addition to publishing over 100 peer-reviewed professional papers and training materials, he served as president of the International Society of Agricultural Safety and Health and co-founded the Grain Handling Safety Coalition. As a University of Illinois faculty member, he helped establish a minor in agricultural safety and health for undergraduates and developed several courses to that end.¹



Bob Aherin

Steve Swain became Indiana AgrAbility's rural rehabilitation specialist in 2000 and NAP's assistive technology specialist in 2008. During his tenure, he worked in-person with hundreds of farmers, assisted thousands more through the program's toll-free helpline, and earned Assistive Technology Professional certification from RESNA. He spent long hours, often around kitchen tables, not only gathering information for reports but also serving as a compassionate ear to the struggles of farmers who are often overwhelmed by newly acquired disabilities.



Steve Swain

As an encore, Steve is returning on a part-time basis to assist Indiana farmers who are being served through the Indiana Department of Vocational Rehabilitation. He will also be assisting NAP with various activities during the new grant cycle.

AgrAbility Harvest

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

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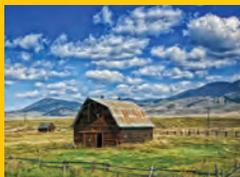
The National AgrAbility Project is a partnership between:



Purdue University is an equal access/equal opportunity institution.



ON THE HORIZON



AgrAbility returns to in-person events with a regional workshop August 9-11, 2021, at the Billings Hotel and Convention Center in Billings, Montana, presented in cooperation with the Western Regional Agricultural Stress

Assistance Network. The meeting will have farm stress sessions in addition to agricultural tours and traditional AgrAbility presentations on topics like work-site assessments. Visit www.agrability.org/trainings for registration information.

The AgrAbility National Training Workshop is scheduled to return in-person in 2022! Mark your calendars for March 14 –17 in Madison, WI, and look for details at www.agrability.org/ntw.

Also coming...**Veterans Harvest: A Virtual Conference for Veterans in Agriculture.** The series will convene for five consecutive Tuesdays beginning July 27, 2021 from 1 – 2:30 p.m. ET. All sessions are free. See www.agrability.org/resources/veterans.

**Note: events below are subject to change due to possible pandemic restrictions.*

2021

August 3-5	Empire Farm Days	Seneca Falls, NY	www.empirefarmdays.com
September 1-2	Farm Progress Show	Decatur, IL	www.farmprogressshow.com
September 14-16	Husker Harvest Days	Grand Island, NE	www.huskerharvestdays.com
September 21-23	Farm Science Review	London, OH	fsr.osu.edu
September 28-October 2	World Dairy Expo	Madison, WI	www.worlddairyexpo.com
September 29 - October 2	Amputee Coalition National Conference	Virtual	www.amputee-coalition.org
October 18-22	APRIL Annual Conference	Virtual	www.april-rural.org
October 19-21	Sunbelt Ag Expo	Moultrie, GA	www.sunbeltexpo.com
October 27-30	National FFA Convention	Indianapolis, IN	www.convention.ffa.org

2022

January 5-7	Keystone Farm Show	York, PA	leetradeshows.com/keystone-farm-show
February 8-10	World Ag Expo	Tulare, CA	www.worldagexpo.com

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