

## *Dairy farmer adds assistive technology to take the weight off her shoulders*

***AgrAbility PA worked with Chelsi to find a solution – and to find funding – so she could milk without pain.***

**It was getting hard for Chelsi Shultz to milk cows on the family's farm in Danville, Pa.** Carrying and lifting the 25-pound milkers through the old stanchion barn to attach to 80 or so cows and then to the pipeline above began to cause her shoulder pain. It was also getting difficult to pull the wagon loaded with milk buckets to feed the calves on the farm. She was literally feeling the weight of these farm tasks falling on her shoulders.

"It was all of that range of motion – and you use your shoulders in most things," Chelsi said. "It was a lot of pain."

Chelsi was diagnosed with shoulder impingement in both shoulders by her doctor. She was close to needing shoulder surgery and facing the possibility of not being able to keep up with her responsibilities on the farm.



*Chelsi demonstrates how the rail system helps her move milkers without further damaging her injured shoulder.*

assessment with Abbie Spackman, who serves as the project assistant and case coordinator.

"It was to the point where she almost couldn't do it," Abbie said, upon visiting Chelsi on the farm.

AgrAbility PA recommended a rail system and automatic takeoffs for milking and a powered milk cart for calf care. AgrAbility PA referred Chelsi to Pennsylvania's Office of Vocational Rehabilitation (OVR) and she was found eligible for services. Chelsi replaced the pipeline system to fit with the new rail system in the barn. Now, instead of lifting the milkers, the equipment can be pushed along the rail system that winds around the barn. The weight is literally taken off the person milking, Abbie added.

Before the rail system was installed, Chelsi's husband and the farm's employee were also starting to complain of shoulder pain. That all stopped once the rail system was in place.

And now, instead of pulling a cart full of milk buckets, she guides the battery-powered cart in front of her. It does most of the work.

"It didn't only help me, but it helps other people that are doing the work on our farm," Chelsi said.



*Chelsi uses a battery-powered cart to haul milk to calves on her family's dairy farm.*

### **REACHING OUT**

Chelsi didn't know about AgrAbility until she posted to a female dairy farmer Facebook group looking for advice on what to do for her shoulder pain. Several people suggested reaching out to her state's AgrAbility program. Chelsi contacted AgrAbility PA and started the first step in receiving assistance: a worksite

# Assistive Technology on the Farm: Access & Modifications

Improve independence and safety when accessing agricultural equipment

One of the most common reasons a farmer contacts AgrAbility PA is because of difficulty accessing a tractor, combine, skid steer, or other piece of equipment on the farm.

Arthritis, spinal cord injuries, amputations, back or joint injuries and pain, and general symptoms of aging and loss of strength can impact the ability of a farmer to safely access their equipment.

**Several modification options – steps, handrails, and lifts – are available to improve access and safety.**

**Before deciding HOW to modify a piece of equipment, it is important to determine WHAT equipment to modify.** Some equipment may not be a good choice for modifications. Modifying an antique tractor or a skid steer that is regularly in the shop for repairs might not be the best option. Consider the following:

- 1.) Ease of operation
- 2.) Frequency and Type of Use
- 3.) Age and Condition of Equipment
- 4.) Current Safety Features

## MODIFYING YOUR EQUIPMENT

### Steps

Ergonomic steps sometimes called safety steps are often a great improvement over the original steps and typically include 3-4 wide steps with good tread and correct spacing. For tractors that already have ergonomic steps, an extra step can often be added to decrease the height of the first step.



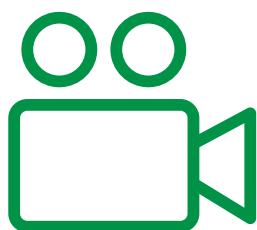
### Handrails

Handrails often mounted on the steps, door, or fender can add stable hand holds to aid in accessing equipment. When adding handrails, be sure they are correctly and securely mounted. Individuals who find themselves gripping onto the steering wheel for access should consider an alternative, such as a secure handrail or hold. Some step packages come as a kit which include appropriate handrails.



### Lifts

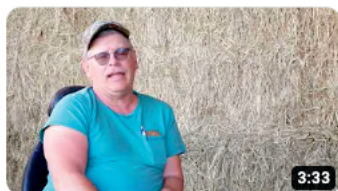
For some individuals, such as those with spinal cord injuries or progressive illnesses, more extensive modifications may be required. Mechanical lifts which can be mounted onto the piece of equipment or an independent lift can safely raise and lower an individual to and from the operator platform using a seat or platform. Many users transfer directly from their wheelchair or mobility device onto the lift. Some lift options require as few as one transfer. A wide range of lifts are available. Contact AgrAbility PA to help determine which lift might be the best option.



## LIGHTS! CAMERA! ACTION!

Take a look at **NEW VIDEOS** available on  **YouTube: @AgrAbilityPA**

**Watch Jim, Lori & Dennis, and Chelsi as they share their experiences** from their farms on what has enabled them to stay working in agriculture.



AgrAbility PA Farmer Testimonial:  
Jim Wright



AgrAbility PA Farmer Testimonial:  
Dennis & Lori Hunsberger



AgrAbility PA Farmer Testimonial:  
Chelsi Shultz

Scan QR code  
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# AGRABILITY PA: AGRICULTURAL WORKSITE ASSESSMENTS

**The keystone of AgrAbility PA is the agricultural worksite assessment.** Also referred to as a farm visit, the goal is to identify barriers or issues a farmer is experiencing and make safe, appropriate recommendations involving modifying equipment, purchasing equipment, or utilizing assistive technology.

When Abbie Spackman, case coordinator for AgrAbility PA, does an assessment, she asks the farmers to show her around their farm. She walks through the buildings, checks farm equipment, and talks with the farmer about how they do farm tasks. When people are in pain, they often change the way they do daily tasks. On the farm, sometimes these adjustments are not the safest.

“

*We are not inspecting the farm – we are at your farm to help. We care greatly about safety and health and we will provide you with information and resources that could benefit you and your farm operation.”*

–Abbie Spackman, AgrAbility PA

After the visit, Abbie writes up recommendations from her observations and provides suggestions and solutions. **AgrAbility PA provides its assessments for FREE to farmers.** Some recommendations can be done for no-cost, such as implementing a new routine or delegating a task, while others may be low cost such as installing and using back-up cameras or mirrors and adding additional steps and a handrail on a piece of equipment. Other solutions may be more expensive - lifts or mobility devices - but will likely result in a better quality of life.

**AgrAbility PA does not provide direct funding or equipment.** AgrAbility PA staff members can assist farmers in applying for financial assistance through the state's Office of Vocational Rehabilitation (OVR) and to other funding sources such as non-profit organizations, grants, and foundations.

In Pennsylvania, farmers do not need to have a diagnosis to prove their disability or health condition to receive an assessment or other services and support from AgrAbility. Additional medical documentation is needed to apply for funding from OVR and other disability or agricultural-related resources.



*A farmer meets with Abbie Spackman (right) during a farm visit.*

## VISITING THE FARM

Assessments help determine what modifications, assistive technology, and resources can support a farmer in returning to or continuing to work in agriculture.

### While each assessment is unique, prepare for:

- ▶ 1-2 AgrAbility PA staff members
- ▶ 2-3 hours in length
- ▶ Informal, yet detailed evaluation
- ▶ Majority of time spent outdoors, in buildings, or reviewing equipment, job duties, and demonstrating some tasks
- ▶ With permission, pictures and video will be taken of farm, equipment, and tasks

### Outcome:

- ▶ Make recommendations during the farm visit
- ▶ Follow-up with a letter of recommendation based on the farm visit
- ▶ Continue to work with the farmer to obtain and implement recommendations

### Eligibility:

- ▶ Anyone working in agriculture who has a disability or long-term health condition is eligible for AgrAbility services
- ▶ A staff member will connect with a farmer or agricultural worker for an initial in-take to determine next steps for an assessment

**If you are interested in receiving an AgrAbility PA Worksite Assessment:  
814-867-5288 or [AgrAbility@psu.edu](mailto:AgrAbility@psu.edu)**

## Contact Us

814.867.5288

[AgrAbility@psu.edu](mailto:AgrAbility@psu.edu)

[AgrAbilityPA.org](http://AgrAbilityPA.org)

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## CULTIVATING ACCESSIBLE AGRICULTURE

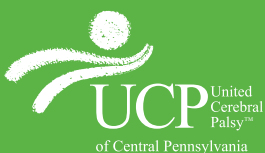
*one farm family at a time*

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*AgrAbility for Pennsylvanians is a state-wide partnership between Penn State Extension and UCP Central PA.*



## UPCOMING EVENTS

### Keystone Farm Show

January 10 – 12, 2023

York Expo Center | York, PA

*Largest commercial farm equipment & service provider trade show in Pennsylvania*

### Pennsylvania Farm Show

January 7 – 14, 2023

Farm Show Complex | Harrisburg, PA

*The 107th event is themed: "Rooted in Progress"*

### AgrAbility National Training Workshop

March 20 – 23, 2023

Centennial Hotel | Spokane, Washington

*The premier training event addressing issues of disability in agriculture.*



**LEARN MORE:  
[AgrAbilityPA.org](http://AgrAbilityPA.org)**