“I’m Not As Young As I Used To Be!”
Farming & Gardening
Ohio AgrAbility Program

The Ohio State University has partnered with Easter Seals to serve Ohio’s agricultural residents impacted by a disability, by providing training, technical assistance, and become a primary source of information directly to the farmer.
Working with farmers to continue life on the farm.
- Help to maintain productivity on the farm
- Wide range of disabilities (Paralysis to Arthritis)
- Information and resources
- Technical assistance / on-site assessment
- Secondary injury prevention
- Assistive Technology and adaptive tools / equipment
- Universal Design concepts
Injuries Faced by Farmers

• Head injury
• Paralysis
• Amputation
• Cut / caught in
• Blunt trauma
• Sprain / strain
• Secondary Injuries
Health Issues Faced by Famers

• Arthritis
• Hip and knee replacement
• Cardiac health
• Stroke
• Diabetes
• Cancer
• Respiratory issues
Safety Concerns for Aging Farmers

- Reduced reaction time
- Reduced balance
- Loss of Strength
- Overexertion
- Fatigue quickly
- Reduced vision
- Hearing impairment
OSU Cares about Farming Arthritis Program

Educate farmers about arthritis
History questionnaire / Screening tool
Determine level of risk
Make referrals
Provide resources on prevention and treatment

Over 800 farmer participants in the first two years.
OSU Cares about Farming Arthritis Program

• “I’m not as young as I used to be!”
  • Most farmers believe that it is part of normal aging and little can be done to help them

• 66% of Ohio farmers think they have arthritis, and have not consulted health care provider

• 80% of farmers we interviewed had or at high risk of developing arthritis

• 73 % of farmwives interviewed were at the at high risk of developing arthritis
OSU Cares about Farming Arthritis Program

• 50% reported moderate to severe joint pain in the past month
  – Nationally among adults with arthritis,
    • 25.7% report severe pain

• 75% reported that they were at least ten lbs overweight
Arthritis and Agriculture

- Primary or secondary disability
- Effects multiple joints
- Exercise vs. Physical Activity
- Coping with stress
- Sleep, rest, & pace
- Protecting the joints
- Doctor visit? / medications
- Unproven arthritis remedies
Health and Safety: Farm or Garden

Your body is your most important and valuable tool.

- **Stretch and warm up** before physical activities.
- **Respect pain.**
  - Pain is the body’s warning sign. When gardening causes pain, **STOP**.
- **Poor posture** can lead to pain, fatigue, and strains.
  - Avoid sitting slouched over while working
  - Avoid resting your weight on one leg or one arm while you work.
Health and Safety: Farm or Garden

- Repetitive tasks can lead to injury;
  - trying to hoe just one more row or pull just a few more weeds can cause inflammation, tenderness, and pain in joints.

- Use the **strongest** and **largest joints** and **muscles** for the job.
  - Use the legs, not your back, when lifting.
  - Use the forearm and elbow, not your wrist or fingers.
  - Use the palms to push levers or tools, not your fingers.
Health and Safety: Farm or Garden

- Use proper lifting technique.
- Avoid twisting motions when carry something.
- **Bend, stretch, and move around** often to avoid stiffness.
- **Switch tasks often**, going from bending jobs to reaching jobs.
Health and Safety: Farm or Garden

• Organize the day and plan ahead to increase the efficiency of processes

• Whenever possible, sit while working to take the weight off the joints.
  – keep a chair, or stool nearby when working in the same spot for long periods of time.

• Arrange tools so they are easy to reach and store.
Health and Safety: Farm or Garden

- Simplify work tasks
- Avoid jumping off of equipment
  - Use three points of contact during dismounting equipment
- Don’t stay in the same or awkward position for long periods of time.
  - Take short breaks, walks or stretching
- Ask for help during cumbersome or awkward tasks
Health and Safety: Farm or Garden

Grasping or Gripping

• Avoid grasping tightly for long periods of time.
• Build up handles or levers
• Reduce vibration
• Use gloves with dexterity
• Use items to create leverage
• Use technology of assistive technology
Health and Safety: Farm or Garden

Slips and Falls: Contributing Factors

- Poor housekeeping and lots of clutter
- Poor lighting in walkways and work areas
- Carrying oversized object that obstruct vision
- Wearing the wrong footwear
- Walking too fast or running
- Distractions
- Not paying attention
Health and Safety: Farm or Garden

Preventing Slips and Falls

• Keep floors dry and clean
• Remove clutter
• Clean livestock pens regularly
• Remove dirt, mud and debris from surfaces
• Mark permanent isles or travel paths
• Inspect the farm regularly for fall hazards
Health and Safety: Farm or Garden

Preventing Slips and Falls

• Face the equipment when dismounting
• Use three points of contact when mounting or dismounting
• Ensure steps, hand holds, and railing are in good condition
Health and Safety: Farm or Garden

Preventing Slips and Falls

• Check for uneven ground when dismounting from last step
• Never jump off of steps
• Avoid trying to carry objects when mounting or dismounting
Creating a productive and safe work environment

Assistive technology / Adaptive Equipment
Extending Universal Design to the farmstead
– Home ⇒ Garage, Farm shop, Barn

Entrances / Accessibility
Equipment & Workplace modifications
Job Accommodations
Tools / Equipment
Livestock handling
Assistive Technology

Any kind of device, modification, or service that will help a person with a disability work and live more independently.

– low tech or high tech
– expensive or inexpensive

Ultimately helps to make it possible for someone to complete a job that might otherwise be difficult.

Create a productive and safe work environment
Universal Design

Universal Design is the creation of products and environments meant to be usable by all people, to the greatest extent possible, without need for adaptation or specialization.

Extending Universal Design to the farmstead

– Home ⇒ Garage, Farm shop, Barn
Creating a productive and safe work environment

- Entrances / Accessibility
  - Doors & Gates
  - Handles
  - Stairway vs. Ladder
Creating a productive and safe work environment

- Mobility
  - Standing Wheel Chair
  - Mobility Scooter
  - ATV / UTV
Creating a productive and safe work environment

• Equipment modification
  – Steps
  – Hand controls
  – Steering
Creating a productive and safe work environment

- Equipment modification
  - Quick – Attach
  - Hitching Devices
  - Ag Cams
  - Seating
Creating a productive and safe work environment

• Equipment modification
  – Lifts
Creating a productive and safe work environment

• Job Accommodations
  – Anti - Fatigue mats
  – Stools / Utility Carts
  – Task lighting
Creating a productive and safe work environment

- Job Accommodations
  - Tool / parts storage
  - Hoist / lifting devices
  - Wash areas
Creating a productive and safe work environment

Storage: Indoor or Outside
- Keep most used items 18” – 54” from floor
- Reduce travel with storage items to the job location or garden
Creating a productive and safe work environment

- Tools / Equipment
  - Pneumatic powered
  - Battery powered
Creating a productive and safe work environment

• Tools / Equipment
  – Cushioned, thicker handles
  – Specialty tools
  – Material handling
Creating a productive and safe work environment

Universal design tools
- Larger handles
- Cushioned handles
- Ergonomic grips
- Easy to use on / off switches
- Large digital display or dials
- Color coded
- Larger knobs
Creating a productive and safe work environment

- Job Accommodations: Livestock
  - Feed / Water processes
  - Efficient daily chores
Creating a productive and safe work environment

• Job Accommodations: Livestock
  – Modify handling processes
  – Livestock handling equipment
  – Corral systems
Ergonomic Tools

- Tools should have handles that fit your hand
  - Handle should be big enough that your thumb barely overlaps your fingers
  - Handle should be small enough that you can hold it comfortably
Extended Grip

- Provides leverage
- Commercial styles
- Adaptations with PVC pipe
Modified Garden Tools

Adapted Garden Tools have been adapted or modified to “fit” your specific gardening needs. These tools are usually more appropriate if they are:

- Small and lightweight,
- Have long, large and/or foam-padded handles which are easier to manipulate.
## Specialized Garden Tools

<table>
<thead>
<tr>
<th>Tools Type</th>
<th>Image</th>
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<tbody>
<tr>
<td>Pistol Grip Tools</td>
<td><img src="image1.png" alt="Image" /></td>
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<tr>
<td>Sure Grip Tools</td>
<td><img src="image2.png" alt="Image" /></td>
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<tr>
<td>Telescopic Tools</td>
<td><img src="image3.png" alt="Image" /></td>
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<tr>
<td>Braces</td>
<td><img src="image4.png" alt="Image" /></td>
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</tbody>
</table>
Long Handle Tools

Ergonomic Considerations

- Two handed grip is better
- Light weight
- Enlarged, foam, or soft handle
- Telescoping handle
  - Shorter length to accommodate task at hand
• **D-grip**: Tool Accessory for rakes, shovels, hoes, pitch forks, and brooms.

• Mounts mid-way down the garden tool handle to give lifting leverage to the forward hand.
Assistive Technology for the Garden

• Tools / Equipment
  – Material handling
Assistive technology for the garden

Job accommodations and work area
Assistive Technology for the Garden

- Job Accommodations
  - Protective Equipment
    - Gloves, Knee Pad(s), Braces
  - Planting / Harvesting devices
  - Utility carts
Assistive Technology for the Garden

• Job accommodation
  – Specialty tools
Assistive Technology for the Garden

• Tools / Equipment
  – Pneumatic or Battery powered
Assistive technology for the garden

Motorized Equipment
- Labor Saving
- Vibration / Noise / Bulk
- Think about safety
- Read Mfg owner manual
Gardening: Raised Beds & Containers

Types of Raised Beds
- Raised ground beds
- Deep raised beds
- Elevated beds
- Terracing and retaining walls

Types of Container Gardens
- Miniature gardens
- Window Boxes
- Planting bags
- Hanging baskets
- Containers
Where can I find more information?

www.agrability.osu.edu
Where can I find more information?

www.ohioline.osu.edu

Assistive Technology for the Farm,
Extending Universal Design Principles onto the Farmstead,
Secondary Injury Prevention: Walking and Working Surfaces,
Secondary Injury Caused by Lifting,
Secondary Injury Prevention: Caught-in or between Objects,
Secondary Injury Prevention: Ergonomics for the Farm,
Secondary Injury Prevention: Farming with a Pacemaker,
Secondary Injury Prevention: Heat Stress
Secondary Injury Prevention: Safety for Senior Farmers,
Secondary Injury Prevention: Understanding Concussions,
Secondary Injury Prevention: Repetitive Motion,
Overexertion Causing Secondary Injury
Farming with Lower Extremity Amputation,
Farming with Upper Extremity Limitation/Amputation,
Injury Prevention: Types of Cold Stress,
Injury Prevention: Working in Cold Weather
Managing Arthritis When Farming,
Farming After a Stroke,
Managing Stress for a Healthy Heart,
Preventing Heart Disease,
Farming with Parkinson's Disease,
Farming with Diabetes
Initial Farm Injury Emergency Response
Primary Caregiver for a Farm Family Member,
Where can I find more information?

www.agsafety.osu.edu
www.agrability.osu.edu
www.agrability.org

OSU Ag Safety & Health

Find us on Facebook

Your local OSU Extension office.
How can I contact the Ohio AgrAbility program?

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Questions?
EEET forms
Farmer Quality of Life Survey