



Safety in Agriculture

Working with a Disability

Laboratory Exercise

Introduction

Purpose: To gain familiarity with performing routine tasks while physically disabled. To think of solutions to problems incurred by people with disabilities.

Resources: **AgDARE, Disability Awareness and Risk Education project** -- for middle and high school science classes
<http://www.cdc.gov/nasd/videos/v000001-v000100/v000001.html>

Farming and Ranching with a Disability

<http://www.cdc.gov/nasd/docs/d001701-d001800/d001767/d001767.html>

All publications on NASD on Farming with Disabilities (including how to prevent secondary injuries)

http://www.cdc.gov/nasd/menu/topic/farming_disabilities.html

1. List the three leading reasons for farmers to have disabilities.
2. What are secondary injuries?
3. Why is it important to understand physiology when corrective measures (for working with a disability) or assistive technologies are developed?
4. Identify 3 issues that can influence decisions made in helping people with disabilities to continue farming.
5. Perform the tasks at each of the Disability Simulation Stations:
 - a) Station 1: Arm Amputation
 - b) Station 2: Vision Loss
 - c) Station 3: Loss of Mobility



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Station 1: Arm Amputation

Simulate having one arm by placing your dominant arm behind your back (i.e., if right-handed, place your right arm behind your back).

- a. Start a nail
- b. Remove the nut from the bolt with the wrench -- put it back on and tighten
- c. Change sockets on a ratchet wheel
- d. Push a wheelbarrow (if available)
- e. Scoop sand into a bucket
- f. Wash hand with bar of soap. Dry with paper towel from towel holder.
- g. Spread peanut butter on a slice of bread; fold in half; wrap in plastic wrap.
- h. Button a shirt

Station 2: Vision Loss

Paint-coated glasses are provided for you to perform these tasks. Please select a partner and take turns spotting for each other.

- a. Start a nail
- b. Locate a 3/4" socket in a tool box
- c. Locate a 5/8" wrench in a tool box
- d. As you take tools out of the tool box, identify what they are
- e. Seat yourself on the passenger side of a pick-up (if available)
- f. Walk to Room 110
- g. Have your spotter drop the block of wood and by talking to you, guide you to find it and pick it up.
- h. Button a shirt, making sure that the buttons are lined up with the buttonholes



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Station 3: Loss of Mobility

Wheelchairs are provided in order to simulate loss of mobility. Please select a partner and take turns spotting for each other. NO HORSEPLAY -- THIS IS SAFETY CLASS!

- a. Maneuver around obstacles and other people
- b. Scoop sand into a bucket (if available)
- c. Move a bale of hay (if available)
- d. Maneuver over a floor grate
- e. You have dropped something (block of wood provided) -- how do you pick it up?
- f. Open the door of the lab, go through it and close it
- g. Get a drink of water from the water fountain
- h. Go out the front door of the building on the main level. Come back in and return to the lab. (Involves using the elevator.)

Completing the Lab

6. What did you find the most difficult station? What are some ideas that you may have for making some of the tasks easier?

7. How can making assistive technologies for people with disabilities also help people without disabilities?