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Ability Tools
Ability Tools connects Californians with disabilities to assistive technology devices, tools and services to make life easier.

abilitytools.org/

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CalAgrAbility **FACTact**

Ability Solutions for Agricultural Communities

Ergonomics & Farming

Ergonomics is the science of equipment design to reduce worker fatigue, discomfort and maximize productivity. In practice, ergonomics adapts the task to the worker, whereas historically workers have adapted to the task.

The goal of ergonomics is to prevent musculoskeletal disorders in the workplace, which is especially important in agriculture because it is consistently ranked as one of the most dangerous occupations.

The repetitive and strenuous activities in agriculture, such as pruning, stooping, lifting, bending, and twisting can cause serious injuries immediately and chronically. These positions are not natural. Ergonomic tools and procedures can reduce these injuries and allow workers to extend their health and work safety.



Poorly-designed tool: Handle presses into base of palm and requires user to open after each cut (no spring).



Well-designed tool: Handles are long. Spring return keeps tool open. Handles are covered with rubber or plastic grip.

Figure from *Simple Solutions*



Figure from Ability Tools

What Can CalAgrAbility Do For You?

CalAgrAbility visits the farms and work sites of farmers and farm workers to assess potential hazards. During these visits, CalAgrAbility gives advice to farmers and farm workers who can make small changes to work more efficiently and safely.

For example, a small, ergonomic change in tools, such as adding a RoboHandle® (above) to a rake, can make workers more efficient allowing them to work for longer periods of time. The ergonomic rake also allows the wrist to be in a natural position.

For access to ergonomic tools for home, farming and gardening use, contact CalAgrAbility, Ability Tools, or the National AgrAbility Program if you reside outside of California.

How can I apply ergonomics?

The first step is to learn to be aware of when your posture or joints are in a position that is not natural or is straining. Changing these unhealthy postures can be done by developing the habit to correct your posture over time. Learn about ergonomic tools that encourage good postures and positions. Many tools that you might already have can be adapted to help you work more naturally.

Occupational Safety and Health Administration: Ergonomics

U.S. Department of Labor
Occupational Safety & Health Administration
200 Constitution Avenue, NW
Washington, D.C. 20210
1 (800) 321-OSHA (6742)

<https://www.osha.gov/SLTC/ergonomics/>

OSHA works to “assure safe and healthful working conditions for working men and women by setting and enforcing standards by providing training, outreach, education and assistance.” If you experience unsafe working conditions, contact the closest OSHA office near you.

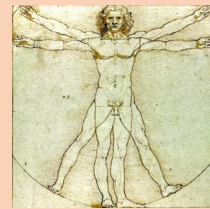


Ergonomics.org

<http://ergonomics.org/>

Experts encourage working positions that allow the worker to use several postures that are healthy and safe. “Work activities should be performed with the joints at about mid-point of their range of movement. This applies particularly to the head, trunk, and upper limbs.”

Ergonomics.org is a great pool of resources about ergonomic topics including articles, books, audio/video, and links.



Simple Solutions: Ergonomics for Farm Workers

Simple Solutions: Ergonomics for Farm Workers is a book of ergonomic solutions designed for farm work of multiple agriculture settings, such as fields, nursery, shrubbery, orchards, and production lines.

One example of the ergonomic tips in *Simple Solutions* is to use smaller and lighter tubs to transport wine grapes. The conventional tubs can weigh 57 pounds when filled. Workers must stoop, grip, lift, carry, and dump the tub up to 20 times an hour, overhead and into the gondola.

The smaller tubs that *Simple Solutions* introduces average 46 pounds when filled making it easier to maneuver. It also features better handles to prevent extra pressure on hands.

U.S. Department of Health &
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United States
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National Institute
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nifa.usda.gov/program/agrability

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CalAgrAbility serves farm and ranch families affected by disability and illness protecting the quality of life and preserving livelihoods.

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