

# Farming Safely with Arthritis

Arthritis, a condition that can reduce strength and mobility for completing routine chores, is a pain to farmers, ranchers, and farmworkers. Arthritis is one of the most common disabling conditions, and it especially affects farmers, ranchers, and farmworkers due to the physical nature of their work, which may include climbing steps, driving a tractor, baling hay, moving livestock, or bending down frequently when milking dairy cows.

The term arthritis refers to more than 100 different ailments known as rheumatic diseases. The most common types are osteoarthritis, rheumatoid arthritis, bursitis, and tendonitis.

Osteoarthritis causes the breakdown of the smooth, gliding surface of a joint, known as cartilage. When cartilage is destroyed, raw bone surfaces rub together and the bone ends may thicken and form boney overgrowth called spurs.

For farmers, ranchers, and farmworkers frequent lifting of heavy objects, repeated use of vibrating machinery or constant bending to perform certain tasks can add to the stress on joints and set the stage for osteoarthritis, particularly of weight-bearing joints.

Many everyday tasks that were once simple are now painful and tiring. Working in agriculture is different from other occupations because certain tasks cannot wait to be completed. Asking and getting help from others is often limited; and changing careers is not possible nor, is it a realistic and practical solution.

Farmers or ranchers with arthritis may relate more clearly to the abilities they used to have and may perceive themselves as still having those same abilities. Therefore, farmers and ranchers with arthritis need to recognize the exact nature of their limitations and adjust accordingly.

Farmers with arthritis may experience loss of muscle as well as decreased range of motion or limited mobility and find it difficult to walk long distances for extended periods of time, especially when walking on rough uneven surfaces. However there are a variety of mobility aids to assist farmers and ranchers with arthritis to get around the farm.

## **Mobility Aids**

Mobility Aids may include modified lawn mowers, used golf carts, electric and heavy-duty wheelchairs, all-terrain vehicles, preferably with bench seats, shoe and boot cleats, and special cane tips for ice, snow, and loose gravel. These mobility aids can also be helpful for farmers who experience increased fatigue or to prevent further degeneration.

Foot guards and modifications to controls on all-terrain vehicles and lawn mowers should be considered if a farmer lacks sensation and/or control in their legs or feet. Head gear should be worn at all times when operating an all-terrain vehicles.

**NIDRR Funded MARRTC Farming with Arthritis Project**  
**Amanda Cochran, MOTS**

Agricultural Engineering Extension: Karen Funkenbusch and Dr. Willard Downs  
MU Department of Occupational Therapy: Dr. Guy McCormick, OT

Farmers who experience decreased gripping ability due to arthritis in their hands or upper extremities should utilize jigs, fixtures, clamps, and vice-grips to compensate for the decreased strength or grip. A farmer may find learn that one of their hand or arm is stronger than the other and thus the farmer will consistently rely on that one extremity.

## Hand Tools

One-handed tools and other labor-saving devices to help prevent additional injuries to the stronger extremity are also suggested. Farmers should consider utilizing labor-saving devices such as automatic hitching devices and bin level indicators as well as job restructuring of those tasks that are too difficult or hazardous to perform.

## Farm Machinery

Because of arthritis, decreased muscle range of motion, and limited mobility, it may be difficult to mount and dismount farm machinery because of distance from the ground to the first step. Additional steps, wider steps, steps made of non-slip material such as, "diamond strut" or "grip strut", along with additional hand holds should be considered to make mounting and dismounting farm machinery safer and easier. For farmers who have experienced a knee or hip replacement, additional steps would be recommended. Jumping on and off equipment is not recommended if you have had either replacement.

In older style tractors, it may take a great deal of strength to operate the brake and clutch. Farmers with arthritis who have lost some physical strength may want to install hand controls to help accommodate the physical loss. Appropriate guidelines and standards should always be used when designing and fabricating hand controls so they do not cause further injury. Rollover protective devices are recommended on all equipment.

## Seats

Farmers who have experienced a hip replacement may also want to consider a modification to their tractor seats, such as better cushions, or installation of an independent suspension seat to help provide more protection and shock absorption for the hip joint. Also, for farmers who have a hip replacement, tasks that require bending 90 degrees or more from the hip should be avoided. The step and hand hold modifications should also be considered by farmers who experience instability or balance difficulties.

## Climbing

If a farmer performs any tasks that require vertical climbing, a lift or back support rings, or stairs is an option. These modifications can be utilized on farm machinery, grain bins, and any equipment that requires vertical climbing. If dizziness is a possibility, vertical climbing should be avoided completely.