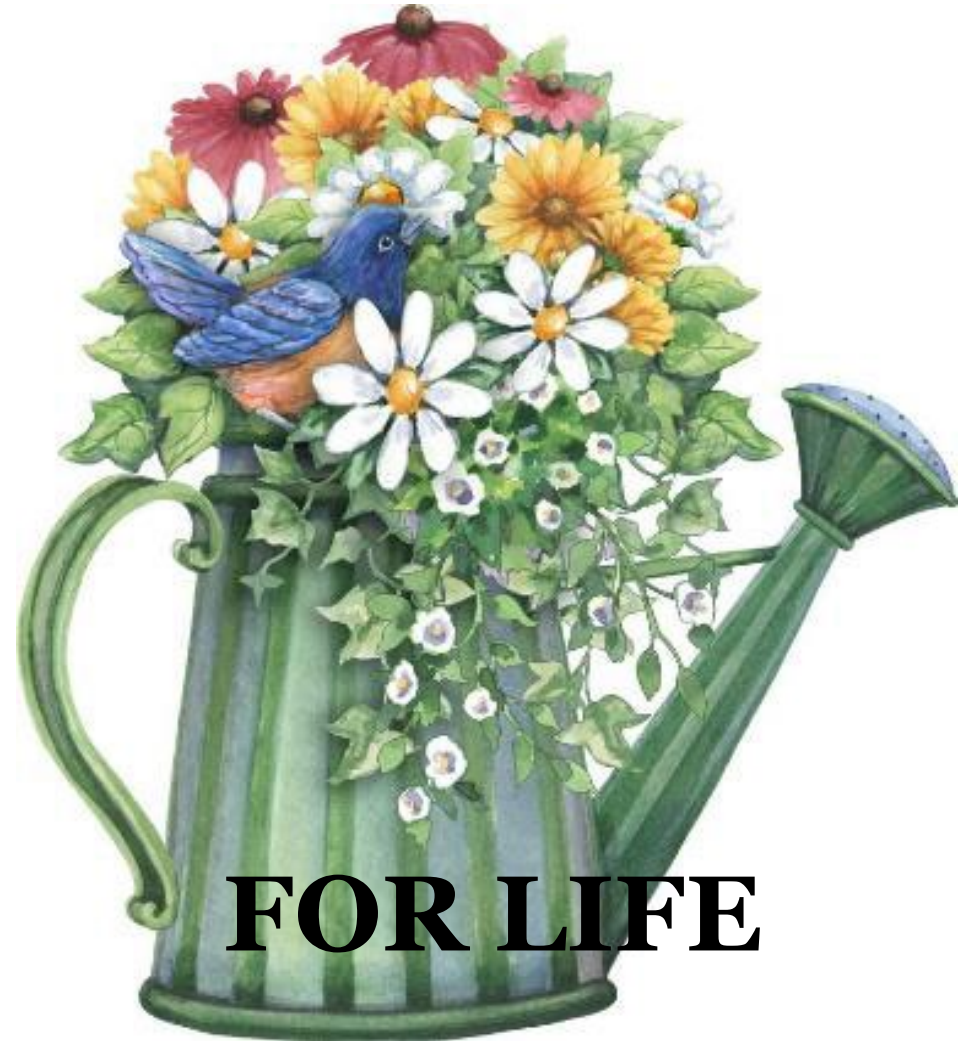


GARDENING



FOR LIFE

Sit To Do Some Tasks

If standing tires you or causes pain and sitting is more comfortable for you, consider sitting rather than standing when you do a task.

There are a variety of seating options available.

Using extended reach tools or child size tools will help you reach the ground and limit your need to bend.

Sit to Do Some Tasks



Use a Cart for Transportation

The cart is a better choice than the wheelbarrow. Cart allows more trips with less effort and less stress.

Compare the wheel location on the wheelbarrow vs. the cart:

- On the wheelbarrow, notice how far forward the wheel is. This requires the full load to be lifted before moving, and the single front wheel on the wheelbarrow makes it less stable. If the wheelbarrow tips, injury can occur trying to right the load. Be certain not to overload.
- On the cart, notice the wheels are positioned under the load bearing the weight and less lifting is required, which means less stress on the body to move.

The multi-tool cart on the right allows you to move long, bulky tools in one trip and store them upright, which is safer than trying to balance tools on top of a cart/wheelbarrow or carrying them in your arms.

Use Cart for Transport



BEST CHOICE

Roll
Rather
Than
Carry

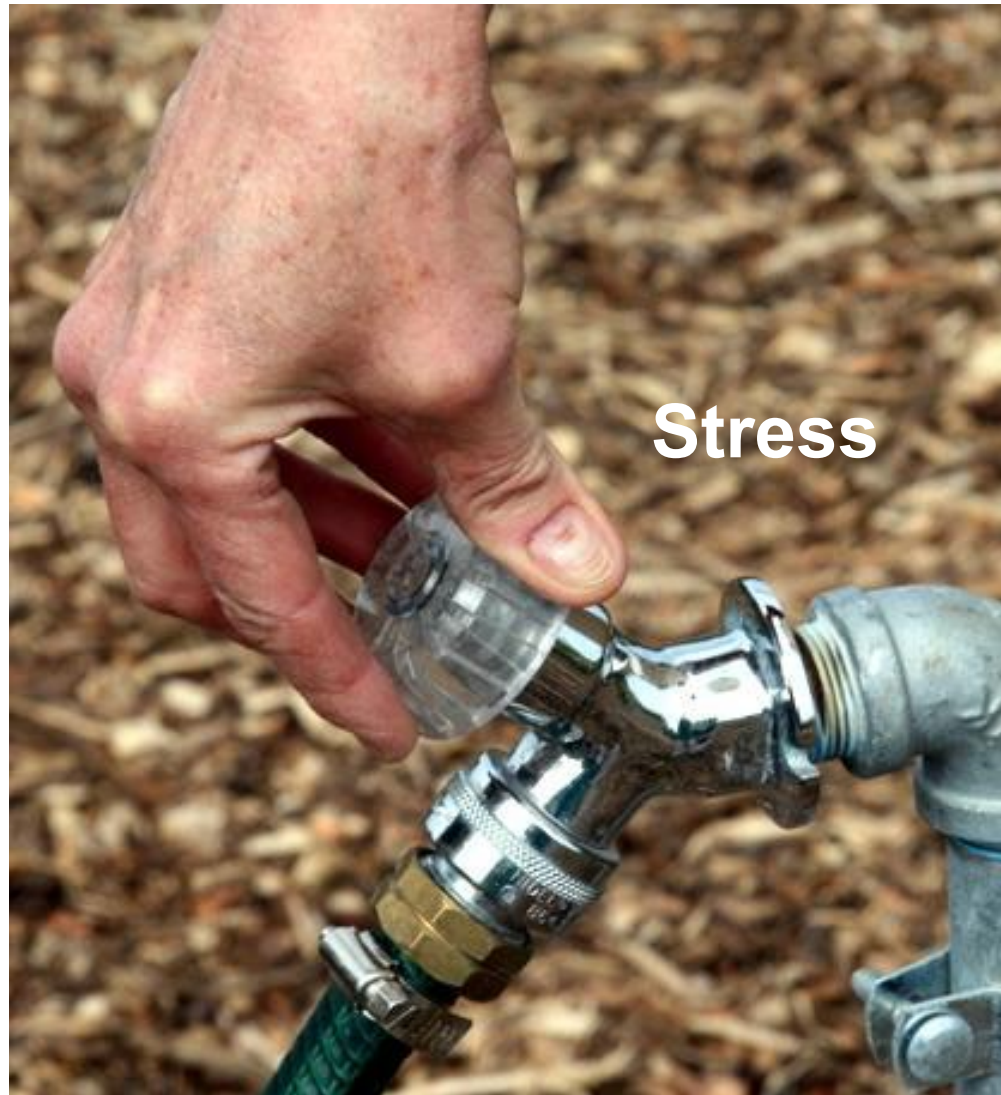
Use Larger Muscles & Joints

When possible, use larger muscles and joints to do a job.

In the right photo, you see you must tightly pinch small finger muscles to turn a standard faucet handle.

The left photo shows how you can turn the faucet handle using both hands and larger arm muscles.

Use Larger Muscles and Joints



Avoid Thumb Pressure

- Avoid repetitive or prolonged pressure onto the pad of the thumb.
- The small lever on the watering wand on the right puts a lot of pressure on one thumb joint.
- The longer lever in the left photo would allow you to use the palm of your hand and direct the force to larger wrist muscles and joints.

Use Larger Muscles and Joints



Avoid Prolonged Pinching and Squeezing

Another example of using larger muscles and joints to do a task.

Avoid Prolonged Pinching and Squeezing



Proper Grip

Avoid extreme positions, such as a tight grasp.

- Notice the tool on top has a narrow handle resulting in finger overlap.
- The correct circumference is measured by touching the pad of your thumb to the tip of your index finger as shown in the bottom left photo.
- The bottom right tool has the ideal circumference. Notice there is no finger overlap. The circumference was increased by adding pipe insulation to the handle of the tool. Pipe insulation can also be used on long-handled tools, such as hoes and rakes, with minimal expense.
- Many companies are now making tools with larger circumference handles. Try them before you buy to see how they feel. Be careful of handles with grip grooves that may not fit your hand.

Proper Grip



Pruner Selection

- There are many options when selecting pruners: those for small hands, large hands, or left-handed.
- There are even power-enhancing pruners such as powergear or ratcheting.
- The ratcheting pruner can multiply the force of your hand times 2.
- The powergear pruner can increase hand strength times 3.



Ratchet



PowerGear



Power Step



Bypass



Anvil



Small Hand



Cut & Hold



Left Hand

Use Proper Pruners

Pruner for Hand Size

- Pruners should fit the size of your hand, using your muscle and joints in mid-ranges instead of extreme ranges.
- Avoid handles with finger grooves as they may not fit your hand. Try before buying.
- The picture on the left illustrates a tool that is too large for a woman.
- That same tool in a man's hand on the right works much better.

Pruner for Hand Size



Recruit More Muscles

- Note how you can cut thicker branches using a two-handed lopper rather than a pruner in one hand.
- Look for lightweight, extended-reach loppers; the long handles can add weight to the tool.

Recruit More Muscles



Good Arm and Wrist Position

- The photo shows a straight line from the forearm to the hand that indicates good wrist position.
- These are called “radius” tools. Be sure to grasp the tool at the end of the handle and not at the curve of the handle.

Good Positions



Aids to Attain Proper Position

- The left photo shows a Peta fist grip tool.
- The center photo shows an added fist grip and a back-saving handle on a long handled tool to properly position the wrist and forearm and decrease stress on the wrist.
- The right photo shows a Peta fist grip tool with forearm cuff. This combination decreases stress on the wrist and redirects force to larger elbow joint and muscles.

Good Positions



Lifting

- In the right photo, the gardener is lifting using predominantly her back muscles, causing the back to curve and be stressed. In the left photo, she is able to keep her back straight and lift with the legs by straightening her hips and knees.
- When lifting, be sure to face the object you are about to lift. Squat down, bending with your hips and knees and not your back.
- Push your buttocks out behind you (shortstop position). Your knees should not be in front of your toes due to increased stress on the knee joints.
- Have/hold the objects as close to you as possible.
- Do not hold your breath while lifting.
- Lift the object straightening your hips and knees.

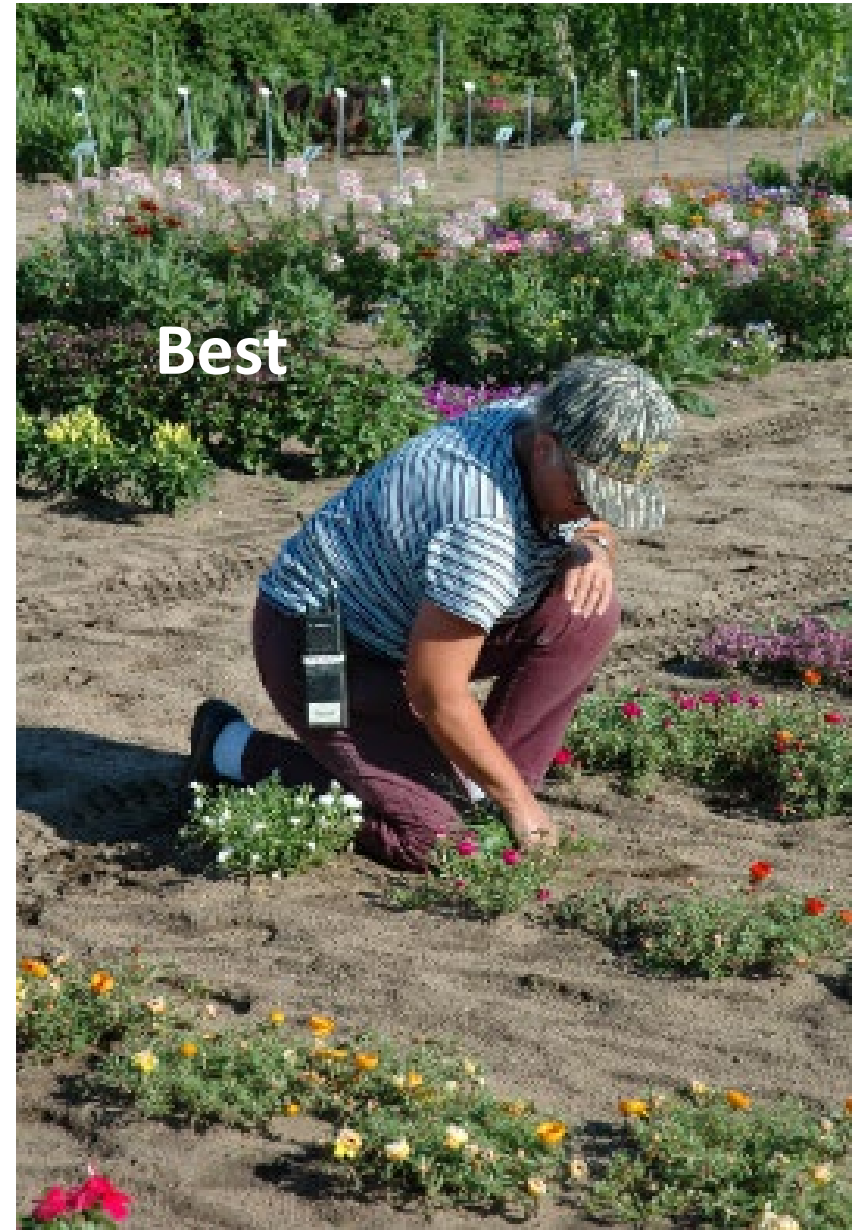
Lifting



Joint Protection Principles in the Garden

- In the left photo, the gardener is bending over with straight legs putting stress on the legs and back. This position also puts stress on the neck.
- In the right photo, notice how the gardener is kneeling with one knee on the ground, the other leg bent with foot flat on the ground, and is able to position his forearm on the thigh. This helps to take pressure off the back muscles and allows for a better neck position.
- Alternate leg positions periodically.

Weeding & Planting



Weeding and Planting

- Here we see the same, one knee position as the previous slide. An option is to use a kneeler, but we do not recommend kneeling on the seat for this type of activity because the distance of the seat from the ground increases the distance to bend, requiring more work of the back and hip muscles.
- On the other hand, the arms of the kneeler can aid the gardener to get down and up from the ground.

Weeding & Planting



Can aid getting down and up

Weeding – Tool Considerations

In this photo, the gardeners are weeding with hoes.

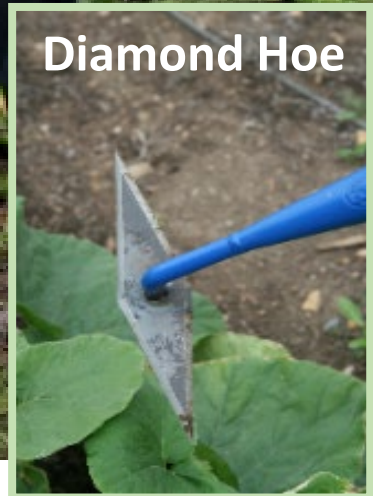
Note that the shaft of the hoe should be long enough to allow an upright posture, resulting in less use of back and hip muscles to maintain that posture against gravity.

The gardener on the right, who is using a diamond hoe (inset picture), has the best position. The blade of the diamond is small and very sharp resulting in efficient cultivation and less need to move the soil.

Weeding



Best



Diamond Hoe

Weeding

Note how the use of a back-saving handle on the shaft of a hoe results in less forward bending and less stress on the back.

While both hoes have a handle, in the right photo the gardener is grasping the shaft of the hoe as she would if there was no handle, and you can see that she is less upright and bent over.

Back-Saving Grip



Home Made Tools Can Help

Stress to the back can be avoided by using a standup seeder; reduces the need to bend or thin crops later.

This standup seeder is home made using a piece of PVC pipe, a clamp, and a dowel. The dowel extends beyond the end of pipe for making a hole or furrow.

Planting – Seed from Standing Position



Shoveling

- Placement of soil: In the right photo the gardener is twisting her trunk to place soil in a container that is located away from the digging hole.
- In the left photo, the gardener stepped to directly face the receptacle with the soil on the shovel.
- Use appropriately sized tool ends. Note: a shovel that has an oversized head will hold a load of soil that is too heavy to be lifted comfortably. Keep tool ends sharp so that less effort is needed to cut through the soil or plant roots.

Shoveling



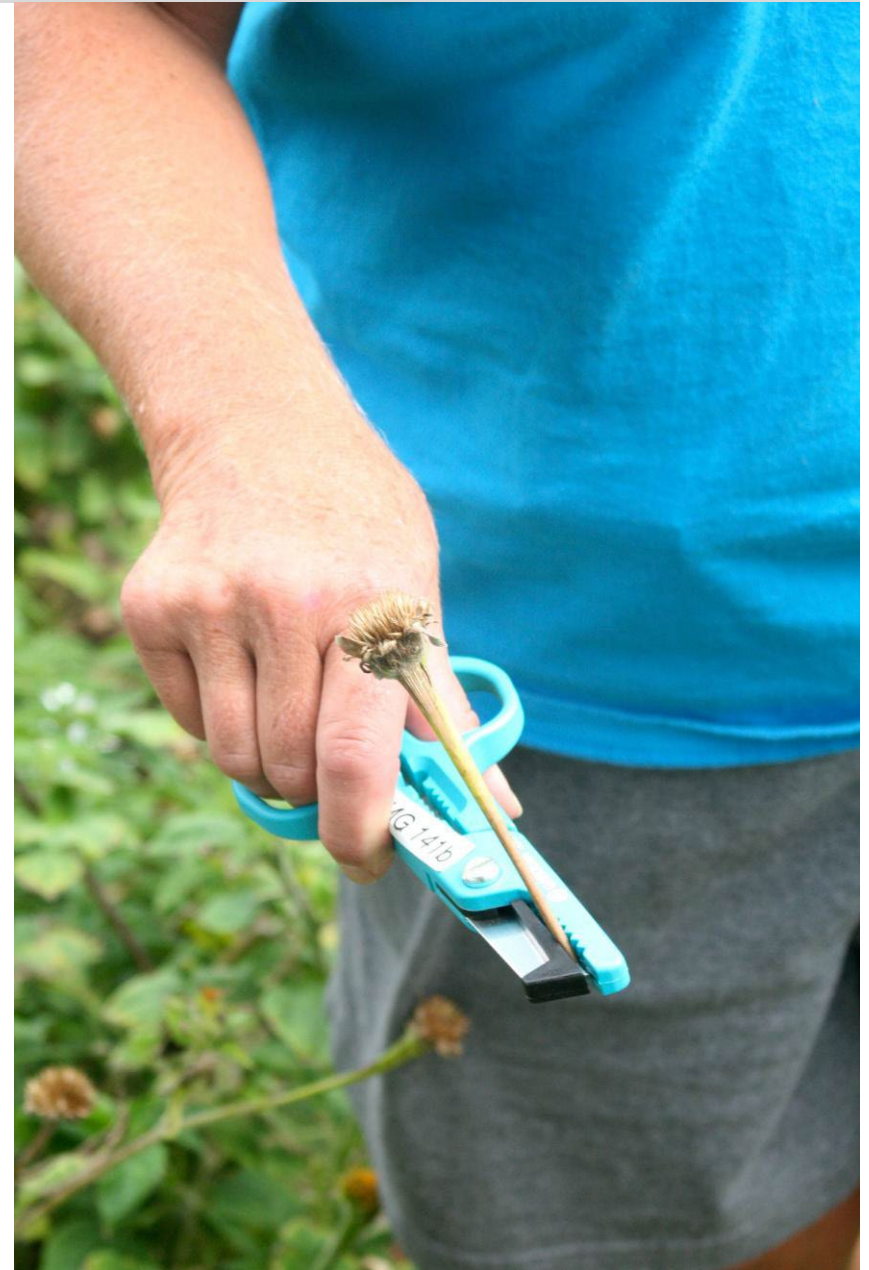
Pruning – Cut & Hold

The gardener is using a cut and hold pruner, which has a rubber or plastic piece along the cutting edge that prevents the release of the cut item.

Advantages:

- Eliminates bending to retrieve cut flower or branch
- Frees one hand if needed
- Eliminates reaching with a second hand (twisting) to hold the cut flower or branch so it doesn't fall.
- Reaching with both hands requires a weight shift to one side that could result in loss of balance and risk of fall.

Pruning – Cut & Hold



Energy Conserving Equipment

Examples of Energy Conserving Equipment are:

- Containers with wheels for ease in moving
- Wheeled pot movers
- Reachers
- Raised earth boxes

Energy Conserving Equipment



Arthritis Foundation Endorsement

- Look for this label indicating a commendation by the Arthritis Foundation.
- These tools should offer more joint protection features.

www.arthritis.org



Garden Basics

Be prepared and remember to:

- Warm up muscles with exercise
- Wear a hat, sunglasses, and sunscreen
- Have your cell phone
- Carry water
- Carry tools to avoid trips
- Wear gloves that fit you!
- Is Tetanus shot current?

Garden Basics



Keys to Gardening for Life

- Adapting the gardener
- Changing the garden
- Choosing easy care plants