

AT FOR GARDENING: CULTIVATING PRODUCE & FLOWERS WITH MOBILITY LIMITATIONS



According to the National Gardening Association, in 2014, gardening increased at the highest levels in more than a decade. Aside from being a popular hobby, gardening can have a positive impact on your health and wellness. Positive benefits of gardening can include reducing stress and increasing self-esteem, having a positive effect on mental health and depression, improving heart and brain health, increasing hand strength and dexterity, helping regulate your immune system, and decreasing your risk of stroke, as [reported](#) by Michigan State University.

If you find it difficult to garden because of a mobility limitation, there are many assistive technology (AT) products and solutions available to assist you. Whether you are a rookie gardener or a seasoned horticulturist, this guide provides tips and tools to help you set up, plant, water, and weed your garden so you can enjoy your own fresh fruits, vegetables, and blooming flowers.

Setting Up Your Garden

If it is difficult or impossible for you to reach a traditional, ground-level garden bed, an elevated or raised garden bed may allow you to more easily perform gardening tasks. Raised garden beds are framed with sides of durable building material, such as lumber, rock, or brick that can be built to a height necessary for you to reach. The frames are then filled to the top with soil, so you can plant your seeds and tend to your vegetables or flowers as they grow without having to work at ground-level. Raised planters offer another solution. Raised planters are baskets or pots that are equipped with legs or wheels below their base that elevate them to a level you can more easily reach. Raised garden beds and planters come in a wide variety of shapes and sizes. For example, Eartheasy provides some [additional guidance, as well as products](#) for you to consider.



Home improvement stores, like Lowes and Home Depot, also offer many solutions for raised garden beds and planters. One example is the [Rustic Elevated Garden Bed](#). Made of red cedar, this garden bed has legs and a bottom base, and measures 30 inches high, 48 inches long, and 24 inches wide. You can place the Rustic Elevated Garden Bed anywhere within your reach. With its dovetail design, you can slide the boards together without having to use any tools. Another example is the [3-Tiered Cedar Raised Garden Bed](#). It is 21 inches high, 48 inches long and 48 inches wide and can also be put together without the need of tools.

[AgrAbility](#) provides information on a [variety of other garden bed and planter options](#) for you to explore. For example, maybe the [FloraLight Garden](#), which is an elevated rack that holds flats of small plants, or the [Woollypocket Living Wall Planter](#), which is a modular hanging container designed for growing flowers, foliar plants, herbs, vegetables, etc., is right for you.

Planting Your Seeds or Bulbs

Whether you choose to go with a raised or a ground-level garden, once you have set it up you will need to plant your seeds or bulbs. Below are some tools that may help you with planting.



If you are planting your seeds in a raised garden, one tool that might be helpful is the [Bulb-Bopper Planter](#). This tool uses the power of an electric or battery-operated drill to create a hole for your flower bulbs, seedlings, or fertilizer spikes. To use it, rest its barrel on the soil surface, turn on its drill, and apply slight pressure to it. The soil, which is retained in the barrel, can then be removed and used to cover the bulb or seeds.



If you have a ground-level garden, the [Battery-Operated Hand Planter](#) might be a good option for you. It is a waist-high tube with a handle on top and a seed-dispensing wheel at the bottom. This planter allows you to plant seeds while standing up. You position the wheel above where you want to plant a seed in your garden. Then you push the button on its handle to release a seed from the wheel. Additionally, it runs off a single D battery, so you can plant your seeds with the push of a button. The [Apron-and-Funnel Seed Planter](#) is a possible (DIY) solution. You can create a funnel by cutting a PVC pipe to your desired length. Then you can drop seeds through the funnel to the ground below.

Watering Your Garden

Proper watering of your seeds is an essential step to growing your produce or flowers. You could opt to use a standard watering can or hose as there are many shapes, sizes, and lengths to choose from on the market that may meet your needs. Or you could opt for a DIY option. One such option is the [Adapted Outdoor Plant Watering Wand Holder](#),



Adapted Outdoor Plant Watering Wand Holder

which is designed specifically for individuals with limited upper and lower extremity coordination and strength. To create this device, attach a traditional 36-inch outdoor plant watering wand water hose attachment to a fishing pole holder using a clamp. Then attach this mechanism to a seat or wheelchair if you use one and connect your water hose to the watering wand. When you turn on the water hose, the attached handle will enable you to

position the wand and water your garden independently, requiring limited motion on your part.

Watering stakes, such as the [Garden Treasures Watering Stakes](#), may be another option for watering your plants, regardless of whether you have a raised or ground-level garden. You fill each stake with water, place them in the soil. Then they slowly release water into the soil to nourish your produce or flowers.

Using a sprinkler is another option. Sprinklers are typically much lighter than watering cans or hoses and require less movement on your part. Install or place, depending on the type you purchase, the sprinkler at an angle so the water it ejects will spread across your garden evenly.

Weeding Your Garden

Lots of companies offer an array of adaptive weeding tools with varied features, such as ergonomic grips to reduce strain on hands and wrists or cuffs that enable you to move a gardening tool using your forearm and upper arm strength instead of relying on your hands or wrists, to assist you if you have an upper mobility limitation. Most weeding tools can be used for either a ground-level or raised garden, but some are designed specifically for ground-level gardens. Be sure to shop around for the tools that best meet your needs. Below are a few examples of tools that may help you with weeding.



Homegrown Ergonomic Hand Weeder

The [Homegrown Ergonomic Hand Weeder](#) can be used for any type of garden. This weeder features a rubber palm rest and contoured finger grip handle to reduce hand and wrist fatigue. You press the tool's V-shaped tip into the soil at the base of the weed and then push the handle of the weeder down towards the ground and up pops the weed.

If you have a ground-level garden, the [Easi-Grip Long Reach Garden Tools](#) is an option to assist you with weeding. This extra-long, lightweight steel tool set comes with a long trowel, long fork, long cultivator, and long hoe to help you weed your garden, particularly reaching the back of garden beds. Each tool in the set has an ergonomic handle so your wrist and hand can remain in a neutral position when weeding, allowing for a firmer grip with less wrist strain. Another option is the [Fiskars Deluxe Stand-Up Weeder](#), which is a lightweight weed grabber that allows you to pull weeds from a standing position. The device has a claw and a foot platform at one end and a handle on the other. To pull a weed, first place the

claw over it and step down on the platform. This pushes the claw into the ground around the root of the weed. With your foot still on the platform, pull the handle of the device toward your foot and the weed will pop out of the ground. Similar weeding devices include the [Weed & Brush Puller](#).

If you have upper-extremity limb-loss, there are companies, like [Texas Assistive Devices](#) (TAD), that offer gardening tools that can be connected directly to your prostheses to assist you in weeding any type of garden. One such set of tools is the [Gardening Combo](#). The set includes a 6-inch, carbon steel hand hoe designed for turning over soil, a 4-inch, stainless steel hand cultivator suitable for weeding, and a 6-inch, stainless steel hand spade fit for digging. A 5-inch pruning saw made of heat-treated carbon steel is also available, but this attachment is sold separately. If you are interested in using any of these tools, check with your medical provider beforehand.



[For More Information](#)

The tips and tools presented in this guide should give you a place to start as you begin to consider how you can make gardening and yard work more comfortable and manageable for you, no matter your specific needs. To find out where you can purchase these products and more, please visit [AbleData](#) and [AgrAbility](#). There, you will find a wealth of objective information about the different types of AT products that are currently available, their manufacturers and distributors, and other helpful AT resources.

[References](#)

6 Unexpected Health Benefits of Gardening, Eartheasy. Retrieved from the web on August 2, 2016 from <http://learn.eartheasy.com/2014/09/6-unexpected-health-benefits-of-gardening/>

8 Great Gardening Tools for People with Disabilities, Crossroads Rehabilitation Center, Inc. Retrieved from the web on August 2, 2016 from <http://www.eastersealstech.com/2014/07/24/8-great-gardening-tools/>

Adaptive Gardening, Amputee Coalition. Retrieved from the web on August 2, 2016 from <http://www.amputee-coalition.org/resources/adaptive-gardening/>

Adaptive Gardening Tools. Marconi, K., University of Central Arkansas, Occupational Therapy

Department. Retrieved from the web on August 2, 2016 from
http://www.ar-ican.org/docs/0311_ADAPTIVE_GARDENING_TOOLS.pdf

Assistive Technology Toolbox: Adaptations and Products for Farming & Gardening with Upper Extremity Amputations, AgrAbility. Retrieved from the web on August 2, 2016 from
<https://www.bae.ncsu.edu/extension/ext-publications/ag-operations/AT-UEAmpBook-CD.pdf>

What are the Physical and Mental Benefits of Gardening? Michigan State University. Retrieved from the web on August 2, 2016 from
http://msue.anr.msu.edu/news/what_are_the_physical_and_mental_benefits_of_gardening



This publication was written and produced by AbleData. AbleData is funded by the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR) of the U.S. Department of Health and Human Services (HHS) under contract number ED-OSE-13-C-0064 and operated by New Editions Consulting, Inc.

Address: AbleData, 103 W Broad Street, Suite 400, Falls Church, Virginia 22046
Telephone: 800-227-0216 (Se habla español.)
TTY: 703-992-8313
Fax: 703-356-8314

All AbleData publications, the AbleData database of assistive technology, and other AbleData resources are available on the AbleData website, <http://www.abledata.com>. Copyright 2017, New Editions Consulting, Inc.

The records in AbleData are provided for information purposes only. Neither HHS nor New Editions Consulting, Inc. has examined, reviewed, or tested any product, device or information contained in AbleData. HHS and New Editions Consulting, Inc. make no endorsement, representation, or warranty express or implied as to any product, device or information set forth in AbleData. The views expressed in this document do not necessarily represent the opinions of HHS, NIDILRR, or New Editions Consulting, Inc.