



By Hook or By Crook: Gardening With Disabilities

Gardeners come from all walks of life, in all shapes and sizes, but we seem to share a common objective; we like working harmoniously with living things to produce tangible results.

Our goals may differ, but even those of us who concentrate exclusively on growing food are pleased when our gardens are attractive. Typically we also enjoy hands-on approaches to learning new things.

Regardless of the scale of our activities, we love to talk about our gardens! Gardeners tend to express deep satisfaction in ways they've become more efficient, whether they are procedures or inventions and gadgets, to make various gardening tasks easier or less time consuming.



Perhaps disabled gardeners differ from our able-bodied peers only by our increased emphasis on horticultural efficiencies. In fact, we try to streamline all aspects of our lives. After all, by definition, “disability” implies difficulty performing one or more major life activity. We are inclined to simplify optional activities as well.

No two disabilities are the same. Some of us may share a single disabling condition but, despite some obvious similarities, we differ as widely in our individual challenges as in our abilities to cope. Problem solving is a complex process, seemingly unique to each person's attitudes, skills and circumstances.

For example, I find I can often overcome obstacles and challenges when I adapt familiar techniques or use ordinary tools, many “off the shelf,” to address problems and situations for which they were not originally intended.

Occasionally, however, I must hunt around for specialized equipment for specific tasks or, in their absence, I make my own. (“Terminal tinkeritis” is a term coined by an electrical engineer friend, describing a trait he and I share with politicians and other engineers; we feel compelled to fix things that ain't necessarily broke. He's got me pegged.)

Some people with disabilities want to start gardening, but lack experience. Others, experienced gardeners who become disabled, want to resume a favorite activity but may need ideas and assistance to get the ball rolling.

Physical ailments or even aging cause some to believe they must curtail their activities or stop gardening completely. Still others want to introduce a young child to gardening but wonder how to accommodate developing cognitive and motor skills.

Entering unfamiliar territory or learning new skills can be daunting. When I try new things I need to be prodded to keep my mind open to possibilities, rather than dwell on my limitations. This crucial first step encourages me to think in terms of "...I could accomplish...if only I could..." but I can't always take it alone.

Often when I grapple with self-doubt, encouragement from others feels patronizing and I am inclined to dig in my heels. Eventually, however, after my stubbornness abates I can begin to think more flexibly about my situation.

As I grow older, I hope to become more receptive to such interventions earlier in the game, or even learn how to intervene on my own behalf. Obstacles confound many people, while a lucky few are motivated by the challenges they pose. I believe that the hapless many can join those lucky few, *if we learn and practice new skills*, even if we feel it goes against nature.

Scoping and Coping Strategies: Some Basic Principles

Years ago, when I set out to accommodate my disabilities in my gardening activities, I first had to hone my problem solving skills. I began this process in total isolation, not knowing whom to ask or where to look for advice.

Because it forced me to be resourceful, isolation turned out to be my most valuable ally, though it hardly seemed so at the time. My solitary struggles finally led to the revelation that I never would be able to devise workable adaptations if I didn't first explore some fundamental questions about my needs. After that, things made sense. I started to make meaningful progress, while learning a great deal about myself along the way. I have identified five basic principles that help me gain insight into my needs so that I can accommodate them.

1. Define Things That Give Pleasure

I try to identify tasks, sensations, concepts, or any aspects of gardening that give me pleasure. Like most people, I am easily motivated when I am entertained, excited, fascinated or even soothed. By contrast, I dread tasks that are dull, futile or cause me physical discomfort.

Many of my most worthwhile projects include some onerous tasks but usually these are far outweighed by the more positive elements, so I slog through them in anticipation of better things ahead.

2. Define Range and Scope of Capabilities

In all of my activities, I gain maximum endurance when I don't have to struggle most of the time, either physically or mentally. I am easily motivated to hone my skills or learn new ones when I expect to succeed or improve, even if doing so requires a lot of hard work. Whenever I try to operate outside or near the limits of my capabilities I become easily frustrated and am inclined to quit.

3. Organize Tasks and Work Areas as Modules

I am easily overwhelmed by large, unwieldy projects unless I divide them into separate, related tasks. My own mobility is impaired, so I try to establish modular work areas for each task, allowing me to rearrange them or put them aside to suit my needs.

4. Maximize Efficiency

A shared sentiment among people with disabilities is that many daily tasks (e.g., taking out the trash, sweeping the floor, even getting from "point A to point B") are difficult and time consuming. One way I cope is by streamlining and multi-tasking my chores to avoid duplicating effort. Often this involves setting up a series of tasks, so that I don't have to backtrack or waste motions, saving me time and energy. By working efficiently, I can be thorough, yet dispense with mundane chores quickly so I can get to the fun stuff.

5. Nurture the Philosophy That Failure Is O.K.

Bitter and plentiful experience has shown me how dangerous it is to let my disappointments and shortcomings degenerate into discouragement and inaction. Tempting as it may be, it is self-defeating to put off making additional efforts to tackle a problem if previous attempts to resolve it have failed.

I've learned that favorable outcomes are possible when I capitalize on unintended consequences and mistakes. In fact, it seems that my most memorable triumphs were also the sweetest because I first tasted failure.

The value of experiencing failure is under-appreciated in American culture. I have come to believe that the only true failure is failure to persevere, giving up before exhausting all possibility of success.

The narrative that follows illustrates how I have applied these principles to help me devise adaptations that allow me not only to continue my gardening activities, but to enjoy them as well.

Ultimately many gardening adaptations I employ are based on intensive gardening methods. Adaptive gardening methods that work for me are described in later sections, where I recount some of my experiences while I adjusted to gardening with disabilities and describe the general layout of my gardening operations.

Integral to these adaptations is the experimentation involved in devising them, a seemingly necessary process each and every time I experience obstacles and problems. Representative examples of this problem-solving process are well illustrated by two large, experimental projects I began several years ago and have yet to perfect.

Gardening in Containers

Some years ago I started growing selected garden plants in containers so that I would have an easier time monitoring moisture, nutrient levels and other growing conditions, and harvesting.

At the outset, the first challenge was to formulate soil mixtures for the ranges of plants I routinely grow in containers, given expected growing conditions in the areas where the containers are situated. After several years I determined that the following soil formulation works very well:

Basic Container Soil Mixture (soil matrix)

- Three parts potting soil, topsoil, or *sterilized* garden soil
- One part peat, coir (coconut fiber) or similar organic material
- One part garden compost and/or composted manure
- One part clean, well graded sand (coarse-to-fine, construction or “traction” sand)
- Vermiculite/perlite, one or two cups per gallon of soil matrix

Additives and Amendments for Container Soil Matrix

- Dolomitic lime as needed, based on soil pH test, according to recommended application rates.
- Bone meal, one-half cup per gallon of soil.
- Hydrophilic soil additives, to moderate fluctuation of moisture levels. Numerous brands are commercially available, usually in the form of polymer crystals that form gels when wet. Amounts to use depend on brand specifications. Follow package directions.
- (Optional) Worm castings, greensand, organic or time-release fertilizer, and/or other supplements.

I have been successful at growing a wide selection of garden plants in containers. To practice crop rotation, at the ends of the first few growing seasons I incorporated the used container soil into my “in-the-ground” garden plots where I grew different kinds of plants, to improve soil qualities there.

That meant the following spring of those first years, I had to purchase the ingredients and mix my container soil from scratch, purchasing raw materials and mixing them fresh. Now that the quality of the soils in my in-ground

garden plots has been built up to sustainable levels, it is much too costly and wasteful to continue buying new container soil components each spring.

So I've have been working out a scheme to successfully recycle and rejuvenate used container soil from year to year, based partly on research but mostly on several years of trial and error.

One of the most important challenges to recycling used container soil is the potential for carry-over of diseases, insect pests and weeds from previous plantings, especially when similar plant groupings are grown using the same container materials.

Also, at the end of each growing season, the container soils almost always contain large volumes of plant matter (i.e., roots) which consolidate the soil mass. Finally, adjustments of mineral versus organic matter, etc. must be made before used container soils successfully can be reused the following season.

Each of my soil recycling experiments, several per season, has built on knowledge I gained during previous attempts. They all follow a basic strategy, a combination of accelerated, active composting, followed by solar sterilization.

Based on my most successful experiments, I have been following steps outlined below. As I gain additional experience, this protocol likely will be fine-tuned every year.

- In the autumn, spread sturdy, semi-permeable sheeting on the ground (perforated heavy mil plastic or non-continuous strips of solid plastic will do), in a level area receiving long periods of moderate or indirect sunlight. I use a portion of my garden where I grow root crops, after the harvest is complete.
- After removing all visible vegetative matter from planting containers, empty the container soil onto the plastic, in a layer no deeper than two feet. I use drainage materials in the bottoms of my containers (typically shells, pebbles and marble chips), so I pick these out, clean and reserve them for reuse in the spring.
- Break up clumps of container soil as much as possible, then thoroughly incorporate compost into the soil mass. Throughout the year, I produce most of my compost in an enclosed 12 cubic-foot bin. I use both finished and partially composted material in this step.
- Sprinkle compost booster onto the soil mass and mix it in so that it is evenly distributed. I have found that, of the numerous commercially available compost boosters, two-part products, consisting of two components, a bacterial inoculant and a nitrogen energy source, which are packaged separately and mixed together just prior to application, are the most effective.
- Adjust the moisture content of the soil mass, as needed, until it is similar to that of a wrung-out sponge.
- Cover the soil mass with additional sturdy, semi-permeable sheeting, to contain heat and help regulate the amount of water admitted.
- Monitor internal temperatures and moisture content in the soil mass regularly and turn it over as needed to aerate it, as you would in any active composting system. Add water as necessary to keep it moist but not wet. I tend to let internal temperatures climb pretty high (even up to 165 degrees Fahrenheit) because I am interested in sterilizing the soil as well as composting bulky vegetative matter.
- Incorporate some more compost booster into the soil mass in the early spring, along with any additional, finished compost which may be available. Cover the soil again and continue to monitor internal temperatures, aerating as necessary. (Generally I leave the soil alone through the winter months, when composting activity vastly slows or is largely suspended.)
- In the spring, a few weeks before planting time, passive sterilization of the soil mass can be enhanced via insolation, especially if the soil is covered for a sufficient number of sunny days with dark colored, opaque sheeting. I use heavy mil black plastic to cover the soil for at least ten sunny

days (longer if there are relatively few days of consecutive sunshine), which in my experience seems to effectively sterilize the soil.

- Hand-work the soil to break up large clumps. Remove large chunks of inorganic debris or other foreign material (this may include some woody matter that has not yet decomposed). The soil is ready to reuse, although some readjustment of inorganic and organic proportions, etc. may be necessary, depending on the plants that are grown.

Growing Potatoes

For as long as I can remember, I have considered potatoes the earthiest of crops. I love everything about them! Unfortunately, growing them the “old-fashioned way” involves moving large quantities of earth, an activity I now find physically taxing, to understate the matter.

For several years I experimented with vertical gardening methods, borrowing an idea from farmers I have known who grew their potatoes inside stacks of old tractor tires. These methods eliminate the need to dig trenches or mound large volumes of soil in a controlled manner, neither of which I can manage. Not only do vertical gardening structures physically surround and support the soil, potato plants and hilling materials, I also appreciate their other assets, stable hand holds and structures against which I can lean while I tend my growing potato crop.

Currently I am comparing two variations of vertical gardening methods, by growing my potatoes in cages and bins. Unaware that bins for growing potatoes were commercially available, I first conceived of growing them in wire cages several years ago. Since then, I came across potato bins offered in several garden supply catalogs.

For the first method, I fabricated four potato cages out of 4-foot wide, galvanized welded steel fencing. Each cage has a diameter of around three feet and is secured to the ground using bamboo stakes. I left an eighteen-inch wide gap in each cage, through which I can reach over to the opposite side while I am seated on the ground, or as I kneel while leaning against the rigid side of the cage.

For my second approach, I purchased three potato bins from a gardening vendor’s catalog. The bins are constructed of durable, recycled black plastic, each about 30 inches in both height and diameter when assembled. The bins are only semi-rigid when empty, so I use bamboo stakes to hold them erect and in place until I start hilling around the potato plants, after which the stakes are unnecessary. Unlike the potato cages, which are rigid, the potato bins do not provide a stable structure against which I can lean to work inside them, nor do they have an opening that provides me access to work if I am seated on the ground. Because of these limitations, I placed the bins adjacent to my wheelchair ramp, so that I can hang onto something solid as I kneel to work inside the bins.

Little preparation is needed before installing either the potato cages or the bins. I have selected two grassy areas and placed the cages and bins right on top of the grass. However, I did remove mature, aggressive weeds like dandelion and witch grass from each area because they likely would have invaded my potato plantings.

I plant seed potatoes in the same soil mixture I use in my containers, previously described. I create layers of soil in the bottoms of the bins about three to four inches thick, packed lightly. (I line the sides of the cages with a couple of layers of newspaper to help contain the soil. The bins do not need any lining.) After placing my seed potatoes on top of the base layer of soil, I cover them with about one to two inches of soil in which I have mixed a slow-release potato fertilizer. Soil moisture in the cages and bins must be monitored regularly and may require daily irrigation, depending on weather conditions.

After potato plants emerge, they must be hilled just as they would were they grown using traditional methods, to protect developing tubers from exposure to light.

This is much easier to do when growing potatoes in cages and bins because the hilling materials are easier to place and control, especially when doing so from a seated position or else using one hand while kneeling, as I must.

I find it convenient and almost cost free to use leaves to hill my potatoes. Each autumn I stockpile leaves removed from my own and my neighbors' yards. I put the leaves in a semi-contained area situated at the edge of my property, a location agreeably accessible to all contributors. I turn the leaf pile from time to time, but it otherwise remains undisturbed through the winter and spring, until I need the leaves to mulch my gardens or to hill my potatoes the following growing season. By then the leaves are partially composted.

I harvest my potatoes by removing the entire contents from each cage and bin, separating tubers from the hilling material and soil as I go. I incorporate both the hilling material and the soil with the container soil to be recycled for use the following season, as previously described.

Criteria I am evaluating in my comparative experiment include:

- Best location, with respect to logistics, for growing potatoes
- Efficiency and ease of use
- Methods of planting, hilling etc.
- Days between planting and harvest
- Yields
- Ease of harvesting
- Methods of recycling both soils and hilling materials
- Costs

This past year, for the first time after many disappointing seasons, my harvest was plentiful with mostly flawless tuber and I should have more than enough potatoes to last me through the winter. As for results of my experiment, comparing cages versus bins to grow potatoes, each had specific advantages and disadvantages while both have yielded similar harvests. (I have yet to determine whether or not my scheme to recycle soil, from containers and potato cages and bins, truly will be sustainable over multiple growing seasons.)

I anticipate continuing to employ both cages and bins to grow potatoes in future seasons, as I try to improve each strategy to make it easier to use. Perhaps advantages of one over the other will tip the balance if and when my physical capabilities change. If (and when) things don't work out well because of unanticipated problems, I will make adjustments, encouraged by that pragmatic yet hopeful gardener's saying, "I'll try again next year!"

Gardening is Hard Work: Why I Do It

If asked, a truly honest gardener will admit disliking particular tasks, often because they are laborious, time consuming and provide little immediate gratification. When you multiply the number of such tasks and magnify the physical hardships they pose, you may get a small glimpse of the gardening experience from the perspective of a person with disabilities. So why do people with disabilities garden at all? Indeed, why does anyone?

I distrust sweeping generalizations, especially when they are extrapolated from isolated examples. In contrast, I appreciate it when individuals recount their particular struggles and learning processes through major life events. Such testimonials allow the listener or reader to personalize insights from the teller's experiences, putting them into action when and where they count.

In that spirit, I offer my own story: my continuing journey as an avid gardener, formerly able-bodied, now facing a life with disabilities. My experiences provide just a few examples of how my gardening disappointments and triumphs enrich all aspects of my life, helping me to be aware of my own potential.

It is best to begin with a brief description of my disabilities: how they arose and the ways they affect my life. I have some as yet unspecified autoimmune disorder that, along with secondary injuries and incidental illnesses, has disrupted my “internal gyroscope” and my ability to coordinate my hips and legs with my upper body. Unable to safely stand or sit unsupported, I use a wheelchair to get around. When I bend over or move reflexively, I tend to keep on going. Gravity always wins. There’s an old mariner’s saying for seamen aboard storm-tossed sailing vessels: *At all times, one hand for the ship and one hand for yourself*. I never have gone to sea, but my world is in perpetual motion around me and I must always have “three-point contact” with the ground and/or some fixed object (*i.e.*, at least three of my extremities must be firmly planted) to keep myself from toppling.

As a youth and younger adult I had no physical disability of any kind, nor did I expect that permanent disability would become my reality, at least not until old age. If I considered a life with disabilities at all, I suppose I imagined it as a form of slow death. After they first arose during my late teens, I did not connect my recurring spate of physical problems with anything permanent or life altering, nor did I register the fact that the trend, over time, was toward more frequent, prolonged and severe bouts.

Disability first entered my consciousness like a reluctant dawn on a stormy morning. The tempest and disruptions that followed were protracted and devastating. They deprived me of much of my personal identity, including my career as an engineering geologist, and left me grasping my way back to what I call my “core attributes.” I simply had to figure out ways to continue doing at least some of the things that had always made me tick. My long experience and deep, abiding interest in horticulture is one of my core attributes.

Excursions in Adaptive Gardening: Trial and Error Actually Works

My gardening career has experienced a few lengthy hiatuses but these were largely circumstantial until I became disabled. When my husband and I moved to my current home, I was still a busy professional, very much employed. I only had enough spare time each growing season to plant and tend various herbs, salad greens and a few tomato plants in a plot that I had reclaimed from some 70 year-old bridal wreath bushes.

I resumed gardening seriously a year or so after disabilities preempted my professional career. My primary motivation was the sudden, drastic reduction of my personal income. I recall hoping to save on groceries by growing, storing and preserving some produce staples.

By that time I was no longer married and was living alone, with no available assistance from other individuals. My mobility impairments were substantial but I had not yet started using a wheelchair. The previous summer I had stopped driving a car because my driving reflexes were no longer reliable. In hindsight, I now wonder why I never anticipated the profound impact my physical limitations would have on my gardening activities, but I did not. So I blithely went ahead and ordered my seeds by mail, plunging right in as I always had done in the past, and planted my old garden plot in neatly spaced rows.

The outcome was proof that experience is worthless in the absence of common sense. Until then I had not appreciated how little control I had of my legs and lower body when I wasn’t giving them my undivided attention. Each time I ventured into my garden to sow seeds or tend seedlings, I committed horticultural infanticide on a grand scale. If I stooped to reach my plantings I stumbled or teetered into the area I was working. I tried kneeling but my legs and feet destroyed the rows behind me.

Seated on the ground I could keep track of my legs and feet, but I could only work with one hand because I needed to lean on the other for stability, plus moving around was impossibly awkward. Every battle I waged with my body in the garden left me physically exhausted and emotionally drained. Not surprisingly, I did not save anything on groceries that year but I learned a lot and started to plan ahead more thoughtfully.

By the next growing season my garden layout was much transformed. As soon as the soil could be worked that second spring, I became a human bulldozer, using my bare hands aided by a sturdy garden trowel. (Other standard garden tools were useless to me because my position on the ground put me at a mechanical disadvantage.) Instead of forming rows, I mounded the soil into waist high beds so that I could reach across them from all sides, from a comfortably stable, seated position. Trenches separating the beds were wide and deep enough to accommodate inevitable lurches and pratfalls, thus keeping my plantings out of harm's way. Years later, I learned that in devising my new garden layout I actually was adapting an intensive gardening technique called *raised beds*.

While I was heartened that most of my garden plants reached maturity that second growing season, I still had difficulty cultivating and tending to the needs of all but a few crops. It was simply too arduous and time consuming to irrigate, pull weeds and maintain organic matter and nutrient levels in the soil.

Even keeping pace with the harvest of some important staple produce, like tomatoes and beans was a losing proposition; I could not always pay daily visits to my plantings and a lot of the harvest grew beyond my reach, way above my safe position on the ground. Only cooking greens and root crops like carrots, turnips and garlic yielded accessible harvests, in sufficient quantities to see me through the winter. Other yields were encouraging and those portions that I could get at unassisted helped reduce my summer grocery needs, but they did not last beyond the killing frost.

In my years of gardening with disabilities, I have come to consider my summer gardening activities my laboratory while the rest of the year is my study hall. In the past, I got away with relying largely on gardening lore, not recognizing the need to explore the facts and the science behind anecdotes and aphorisms. My experience with disability has taught me that I first must understand the needs of the plants I wish to grow, before I can successfully adapt traditional gardening methods to accommodate my own needs. Many of my gardening experiments have not worked as I hoped or planned, but each failure has been a valuable object lesson leading me to more promising ways of doing things.

Journey and Destination: Setting Attainable Goals

It may sound like a joke, but I'm dead serious when I quip that I started using a wheelchair to increase my mobility. Ask anyone who has faced this need, after a point the decision seems obvious. In contrast, it is a profoundly individual process to reconcile oneself to a life-changing situation. For me, reconciliation to becoming a wheelchair user actually preceded my decision to purchase the chair, which was long overdue.

No single factor eased my passage to reconciliation, but my gardening experiences offered me important insights. Whenever I face major challenges, as I routinely do with my gardening activities, each thing I attempt offers me a set of objectives and some clues indicating the path I must follow to reach them, even if those clues at first seem inscrutable. That's where the fun begins.

I have learned that it doesn't pay to bemoan the fact that familiar ways of doing things don't work any more. I'm far more productive and contented planning my future activities based on realistic projections of my capabilities. More often than not my planning involves how I do something, as opposed to eliminating things from my agenda.

Planning for the worst and hoping for the best need not be a grim exercise. Case in point, advocates for universal accessibility are right when they point out that making places and activities accessible to people with disabilities ultimately makes them more accessible to everyone, disabled or not. They also are right when they insist that a project's costs aren't necessarily higher if they are accessible, provided accessibility features are incorporated at the planning stages.

These basic principles define both my broadest goal as well as my means of achieving it. In short, the journey also is my destination; the process of accommodating my disabilities when I try to accomplish something new or difficult has become a goal in itself. Every other venture is a side trip.

Status Quo: How, What, Why and Where I Garden

Each year I save egg cartons and other disposable food containers so that I can use them to start seedlings indoors in early spring. By late March, trays of vegetable, herb and flower seedlings fill every available surface in my dining room. A gardener friend gave me some huge, fluorescent light fixtures under which my seedlings thrive until they can be hardened off outdoors.

When I transplant the seedlings into individual nursery pots, they occupy even more space and I relinquish much of my house downstairs to them. For a few weeks in late April and early May, I must traverse narrow aisles in a one-way labyrinth because there is insufficient room to turn my wheelchair around amid the expanse of seedlings. By that time I feel like a mother bird with fledgling chicks that are too big for their nest. I can't wait until they start supporting themselves so they can go out on their own.

I grow a great many more seedlings than I use in my own gardens. Some of the surplus plants go to family and friends as gifts and then I sell the rest, or barter them for other things I need, once they are hardened. Sales proceeds substantially subsidize my own gardening costs.

A year or two before I started using a wheelchair I decided to dedicate my old garden plot (my "upper garden") mainly to perennials and root vegetables that require relatively little day-to-day attention. That area is situated atop a steep embankment, some distance from the only source of outside water, a faucet from my house cellar foundation. It's inconvenient to get up there, especially if equipment and supplies must be hauled up for me to work, but otherwise it is an excellent spot for a garden.

Now that I am able to visit the upper garden only if I crawl to it, it is fortunate that various tasks I generally do there are circumscribed. Beyond those tasks, I need only patrol my plantings for pests and diseases, and turn a sprinkler on to irrigate them from time to time.

Permanent plantings in my upper garden include the following flowers, herbs and vegetables:

- Asparagus
- Horseradish
- Rhubarb
- Jerusalem artichoke
- Egyptian tree onion (top set onion) Garlic; usually rocambole, a top set, stiff-neck variety
- Italian flat-leaf parsley; re-seeds itself in a patch around the asparagus
- Artemisia, bee balm, borage, chives, hyssop, lavender, lemon balm, lemon thyme, oregano, Russian tarragon, sage, tansy, winter savory, and various mints
- Anemone, crocus, daffodil, hyacinth, iris, Shasta daisy, tiger lily, tulip, viola and various perennial semi-succulents

I also grow potatoes in the upper garden area, in the previously described potato cages which are situated just outside the garden margins, adjacent to my permanent plantings. Other things I plant in my upper garden vary in amounts and varieties from year to year but they usually include beets, carrots, onions, parsnips, turnips and occasionally fennel and/or salsify.

Some years ago I planted tomatillos up there and they have continued reseeding themselves and coming up volunteers every year since. I pull them up if they are in the way, but otherwise I leave them alone and enjoy a bonus harvest if they survive, which to date they have always managed to do.

I grow most of my other, more labor-intensive vegetables and tender herbs in containers close to my house and in a small bed adjacent to my driveway. My container and driveway plants usually include:

- Heirloom tomatoes
- Eggplant
- Bell peppers
- Okra
- Spinach; New Zealand, Bloomsdale and Medania
- Swiss chard
- Mustard greens
- Bunching onions
- Zucchini and winter squash
- Basella vine; a.k.a. Malabar Spinach
- Rat's tail radishes
- Basil, dill, summer savory, marjoram, cilantro, fennel and borage

I find it relatively easy to give these plants the attention they require because I can roll my wheelchair to each container and to the driveway bed. Happily, this arrangement enables me to reap the entire harvest.

When it came time to install a wheelchair ramp between my driveway and my house I designed it with my gardening needs in mind. Its handrails on either side secure 6-inch wide platforms that run along the ramp's entire length, on which I place my trays of seedlings in the spring to harden them off.

For most of the growing season, the ramp also provides a home for pots and planter boxes of herbs which winter inside my house. These include hardy and non-hardy perennials such as oregano, thyme, common and garlic chives, golden sage, ginger, rosemary and French tarragon. I bring the ginger inside before the first frost, to winter under grow lights in the heated part of my house. The other herb plants stay outside past the killing frost until they go dormant, then I bring them up to my unheated attic to shelter them until spring. When nighttime temperatures outside and in the attic are about the same during early spring, I put the attic plants outside again. The ginger goes outside along with my seedlings and houseplants (mostly cacti).

My wheelchair ramp also provides the structure to support my peas and beans. I greatly prefer the climbing varieties to bush peas and beans. In the past I had tremendous trouble harvesting these crops because they require attention *at least* once daily when they start coming in, plus it was really difficult for me to reach up near the tops of the vines. Also, harvesting peas and beans generally is trickier than other crops, for most people, because it's so hard to distinguish the vines from things you are trying to pick. By constructing the ramp between the house door and my mailbox, I addressed both problems at once. On the way down to get my mail I pick everything that's ripe - that I can see. On the way back up to the house I pick everything I missed on the first pass.

My three potato bins are situated next to my ramp on its sunniest side. These potato bins are in addition to the four potato cages situated next to my upper garden, as part of the comparative experiment in potato culture I discussed previously.

I recently established a small patch of thornless blackberries, tayberries and raspberries near the southeast corner of my house. This area once contained an open compost heap, so numerous volunteer garden plant seeds germinate among the berries each spring. Usually they outnumber the noxious weeds. I allow selected volunteer seedlings to mature, provided they don't crowd the berries. Like my upper garden, it is a bit of a hassle to get over to my bramble patch, but it requires attention only infrequently. Besides, the berry harvest is short and easy to pick, plus the reward is sweet, so getting over there is worth the effort.

Several years ago my driveway was lined with red spruce trees. Eight spruces, all of them decrepit, grew on a slope behind a retaining wall, along the property line I share with one of my favorite neighbors. She and I agreed to cut them all down before they came down on one or both of our houses. The trees gone, the slope looked denuded and forlorn, so my neighbor readily seconded my suggestion that I fill it with plantings of herbs, flowers and berries. Since then I have gradually filled the slope with some old favorites, including:

- High-bush blueberries
- Cranberry
- Hardy kiwi
- Artemisia, aster, astilbe, baby's breath, butterfly plant, carnation, chamomile, columbine, convolvulus
- Delphinium, echinacea, foxglove, gaillardia, gladiolus, liatris, lovage, lupine, various mints
- Painted daisy, poker plant, sage, snapdragon, sweet william, tansy, tiger lily
- Anemone, crocus, daffodil, grape hyacinth, snowdrop

The margins of these plantings are fairly easy for me to tend, so I plant them with a variety of annual flowers. Every year, seeds from previous years' plantings germinate throughout this slope. Such volunteers include portulaca, viola and sunflower. Most of these volunteers provide a delightful surprise whenever and wherever they appear.

Savoring the Present

When I follow a routine which demands little mental and physical effort, it is all too easy to slip into a negative, self-defeating mindset. Gardening is just one of several activities that I find both demanding and pleasurable. Such activities maintain my sense of well-being and help boost my initiative.

Planting and tending everything in my gardens, then closing them all down at the end of each season, amounts to a tremendous undertaking. Were I to think only of the huge amount of work ahead of me when the seed catalogs arrive each January, I never would have the courage to place my orders. A long time ago I learned, when facing such mountainous projects, it's a good idea to avoid thinking about the climb ahead. It is far less daunting to take it on in manageable stages. Using this approach, scaling that tall mountain becomes more like a series of invigorating but pleasant hikes.

The spiritual gratification I experience from pursuing such activities helps me define and nurture those things about myself that I value—my core attributes—and more than compensates for all my efforts.

While I truly enjoy the work, I receive a wonderful bonus every time I open my door or look out my windows. I celebrate the spectacle that greets me, aware that though Nature and Providence made it all possible, I had a hand in it.

Text and Photo, 2000, by Emily Binger Cooper, UNH Cooperative Extension Master Gardener

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