Benefits of Enabled Gardening
By Jerry Chenault, Urban Regional Extension Agent

Research has proven that gardening helps people time and time again. But what about those individuals that are physically disabled and/or wheelchair bound? Can gardening help them in any measurable way? Gardens can be created with all types of people in mind.

Do you recall feeling more peaceful after a neighborhood walk outdoors or in a wooded area? Ever felt like you had more energy after pulling weeds in a flower bed? The seemingly magical benefits you felt interacting with nature are the same benefits that help others to relieve stress. Even gardening with individuals with disabilities can show surprising results in reducing stress and improving motor skills. Just 20 minutes of weeding or watering plants produces measurable and visible stress reductions in many individuals.

Gardening also produces some real emotional benefits. Interacting with plants has given individuals a different sense of their place in life and can often divert thoughts of self and negative situations. Gardening stimulates the senses while empowering the gardener with some real creative and controlling opportunities. This pleasure combined with the socialization that gardening often brings, creates changes in behavior, emotional expressions, and feelings of self-esteem. Disabled gardeners often feel a huge change in dependency due to the independent functioning gardening allows.

It’s no small wonder that following both World War I and II, veteran hospitals found garden therapy to be successful in treating disabled soldiers. We’ve known it for a long time, but it seems too simple to be true! As early as 1699 Leonard Maegar, writing in the *English Gardener*, advised his countrymen “to spend their spare time in the garden either digging, setting out, or weeding; there is no better way to preserve your health.”

Dr. Benjamin Rush, pioneer psychiatrist, researcher, and signer of our Declaration of Independence, declared even in his time that “digging in the soil has a curative effect on the mentally ill.” Dr. Rush also found that people who stayed busy with gardening and other endeavors were less likely to need medical treatment.

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Gardening for the Homeless
By Michael McIntyre, Urban Regional Extension Agent

Homeless shelters around the state provide food and shelter to those in need. Nothing is more satisfying than food when you are hungry or a comfortable home when it’s cold or rainy. I’m almost certain that at some time in our lives we have experienced one of those circumstances. Although some shelters offer additional services such as educational programs and health checks, or generally help the homeless to achieve an independent status, none can provide the immediate satisfaction of food and shelter.

According to the National Law Center for Homelessness and Poverty, approximately 3 million people in the United States experience an incident of homelessness, while 9 million people experience hunger each year. Of the 3 million, 30 percent are chronically homeless and 70 percent are temporarily homeless. As a result, 900,000 homeless people are in shelters permanently and are capable of working and contributing to the system that is caring for them, while another 39 million people experience food insecurity each year. But what exactly is food insecurity?

A few homeless shelters are already conducting counseling programs to the drug and alcohol dependent users, which according to the United States Conference of Mayors, account for 34 percent of the homeless population. Homeless shelters can incorporate gardening as an education and therapeutic activity within their counseling program. The garden can be used as a therapeutic activity for the homeless, allowing them to exercise and live a healthier lifestyle. The shelter would spend less money purchasing vegetables and sometimes may have

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The rewards of urban gardening are far beyond the bounties of fruits and vegetables. Gardening promotes beautiful community scenery, neighborly interactions, exercise, and other leisurely recreation for young and old alike. Moreover, growing our own fruits and vegetables result in fewer purchases and imports from other locations. When we purchase goods locally, we also reduce the cost of food and fuel that are bonuses people can appreciate in a declining economy. In spite of the work required to keep gardens properly planted and weeded and the minor aches and pains that come with such labor, we generally perceive gardening as a relaxing experience that brings us closer to nature. Sharing the fruits of our labor and exchanging gardening tips have contributed to the nourishment of body and soul for many during difficult economic times. So in keeping with the spirit of budget-friendly gardening, here are a few affordable insights for urban gardeners just in time for spring planting.

Urban gardeners should think small because their space is generally very limited. Think about plants that grow in small spaces or in containers. For the fashionable, shabby chic is a gardening technique. Buy used and salvaged containers that are cracked or imperfect. Chipped urns and wide-mouth castaways are affordable finds at thrift stores, discount marts, and yard sales. Start with good soil to give your plants a fighting chance. A soil sample will give you facts on how to prepare your planting area. Your local county Extension office can assist with a soil test for a minimal fee.

Choosing the right plants can be fun and provide an opportunity for you to explore your creative side. A must for urban gardening is to plant for beauty and function. Design your rows or place your plants considering height, width, color, location, and potential growth. If you are using containers, an added benefit is they can be placed in small awkward locations or in places where you probably never thought of growing a garden. Container gardens make pretty accents on your deck or patio, along walkways or steps, and amidst flower gardens and shrubbery.

Cucumbers, summer squash, peppers, herbs, and tomatoes are great plants for small gardens that yield quick and fruitful harvests. As a word of caution, suburbanites should beware; natural wildlife take-a-liking to lush garden greens. But it's hard to go wrong with tomatoes. Whether grown in containers or in large or small garden plots, there is a tomato to fit the bill and the menu. Fresh tomatoes add zest to so many recipes from soups to salsas and they can be preserved easily for use in those favorite family dishes when they are no longer in season. Extension's online publications at www.aces.edu provide resources on how to properly store tomatoes. Americans grow more than 1,000 varieties of this fruit (yes, tomatoes are classified as fruits) and yes, there is a Mortgage Lifter variety. The gardener that created the breed in the 1940s used profits from the sale of the tomato seedlings to pay off his mortgage and thus the name stuck.

And what makes your garden grow? You can start from seeds or you can go with seedlings. Seeds saved from the best crops of your favorite plants grown in earlier gardens or from seeds shared by a neighbor help ensure good quality yields. But remember, seeds saved from hybrid plants will unnecessarily produce the same kinds of fruit or vegetables as the plants from which you took the seeds.

So, if you are a city mouse who has contemplated taking the gardening plunge, 2009 is a good year to begin. And, you'll get in your recommended daily sunlight to boost your vitamin D level. Don't forget to apply sunscreen and wear a hat on your gardening ventures!
Benefits of Enabled Gardening (continued from page 1)

Gardening is an activity that can be adapted to all sorts of special needs from raised flower beds for people in wheelchairs or on walkers, to gardens for the blind that utilizes the five senses. Just remember to start small to avoid feeling overwhelmed by a new garden to maintain.

The Bill Stewart Center in Moulton, Alabama has developed a good example of an enabled garden for the developmentally disabled. Built as a project of Extension’s Urban Affairs & New Nontraditional Programs unit, this garden utilizes 4’x8’ or 4’x16’ raised wooden bed areas that are accessible by Stewart Center clientele. As a result of their involvement in this project, self-esteem and empowerment grow right alongside the plots of vegetables and flowers.

Here are some tips for successful enabling gardens:

- Handle sizes can be adjusted by utilizing foam tubes or other commercially made grips or tools. Foam tubes may be purchased from medical or plumbing supply stores as hot water line insulation. Medium to jumbo foam hair curlers may also be used to slip over tool handles for easier grip and use.
- Tools with arm splints can be used to assist with gardening, and these may be a tax deductible expense.
- Pathways for wheelchairs need to be smooth and at least 3-ft wide. Wheelchair accessible bed areas need to be no more than 5-ft wide if accessible from all sides, or 2.5 feet wide if used from only one side. Height will be determined by the user (approximately 24” if used from a chair) and may be as high as 30” if used for a standing gardener.
- Hanging baskets can create planting areas where none exist, and can even be housed “double-decker” style. They can also be lowered by a ratcheting pulley system or by a long metal pole with a curved top hook.
- Deep boxes, barrels, and tubs can be used to make bed areas and normally need to have at least 12” of potting soil/bed depth.
- Water accessibility is a must and needs to be close to the site. The area cannot be muddy if wheelchair accessible, and needs to have a spigot at 24” to 36” above ground. Hand levers should be used rather than round spigot controls that must be hand-turned.
- Mulch around plants will greatly reduce the need for weeding and watering. Soaker hoses or drip irrigation help to eliminate the need to drag water hoses, and are more efficient watering methods.

The following tips on enabled gardening come from the Washington State University Master Gardeners:

- Choose plants that appeal to senses other than sight. For instance, use plants with differently textured leaves that are soft as lamb’s ears or rough like heliotrope. Use scented plants such as herbs and fragrant flowers, as well as plants you hear when they rustle in a breeze.
- Tie a cord around the handles of small tools to make retrieval easier if they are dropped.
- Use gloves to protect hands and to help maintain your grip on tools.
- Use a large magnifying glass to aid in seeing small plants and seeds.
- Wear an apron or smock with large front pockets to carry seed packets and tools.
- Use a piece of light-weight plastic pipe to help you sow seeds without bending over.
- Carry a whistle. A short blast can alert others if you need help.
- Rig hanging planters with a pulley to lower them for watering.
- Grow vining varieties of peas and beans that can be trained up a trellis to make harvesting easier.
- Use containers or raised beds for planting to limit bending and stooping.
- A tool storage shed, cabinet, or just a mailbox mounted on a fencepost or raised bed edge, are also ideal features for an enabling garden. Tool pouches hung on a wheelchair or a walker can be real assets to gardeners, according to Joyce Schillen, author of The Growing Season. Schillen says that those with arthritis, disabilities, injuries, or other health problems can make gardening difficult without some special consideration, and those gardeners are ironically... the ones that could benefit most from gardening. We couldn’t agree more.
surplus produce to sell. The garden will increase the value and aesthetics of the shelter making it a more livable place to stay.

Homeless shelters and other organizations that provide food to the needy should take advantage of gardening opportunities that provide inexpensive sources of healthy food to the people they serve.

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**Fishing Forever**

By Michael McIntyre, Urban Regional Extension Agent

People have enjoyed fishing for centuries and we want to make sure that the next generation continues to enjoy this recreational or economic pursuit for many more years to come. But first, let’s consider some global statistics that make it clear why protecting the fishing industry is important.

The Fishing and Aquaculture Department of the United Nations reports that 27 major fishing areas have been established in the world to date, and many of these areas have already reached or exceeded their natural limits. Furthermore, the International Union for Conservation of Nature and Natural Resources, also known as The World Conservation Union, recorded 1,275 fish on their Red List of Endangered Species. Diminished fish supplies can pose economic challenges even for areas like Alabama’s Gulf Shore region.

One of the most important resources along the Gulf Coast is its fisheries. The fishing industry provides employment for thousands of people either directly or indirectly. It is therefore important, regardless of economic status, that we protect the waters that sustain fish species and manage fishing operations in order to have a continuous and long-term supply of fish. If these resources are left unmanaged, fish will no longer be beneficial to humans. However, good management of the fishing industry helps to foster a larger harvest, while too much management can destroy the industry. The trick is learning how to balance economic or ecological policies.

The fishing industry is different from a farm or other business where property is purchased, rented, or taxed. Fishing is usually done on public property in an open space. Fishing licenses, boats, nets, sonar equipment, and rods are purchased, yielding a $45 billion profit in retail sales (ASA, 2008). However, unlike a farmer who can amend his soil with nutrients, lime and compost to get a larger harvest the following year, a fishing harvest can be very large with little input to replenish what has been removed.

An increase in effort, time spent, and the fishing technique used, yields a greater harvest in the short run, but reduces the harvest in the long run. The cost of fishing usually increases when fish are scarce and it might take a long time before you actually get a catch. In this case you may want to invest in new and improved equipment to increase your chances of a larger harvest. Although new equipment may increase your catch size, younger and additional fish species may also be caught, thus further reducing the fish supply. In the open waters there is no ownership and fisherman continue to fish until the cost of fishing is covered by the harvest. This scenario may sometimes cause overfishing and/or some fish species to become extinct.

In conclusion, fishing is an activity we can enjoy for a very long time whether done for food as a profession or for recreation. However, fishing is a resource that can diminish if not managed properly. Whether you are a reader or a fisher we can act as advocates to educate the public to fish more responsibly and to avoid depleting future fish supplies. We can reduce water pollution and soil erosion, which increases sediments in fish habitat. Fishermen or women can also improve their fishing techniques to harvest only what they need with little effect on other species that are not ready for harvest. By taking these steps, we can reduce fish kill, increase the fish population, and allow the sport of fishing to be enjoyed for years to come.
Make Every Day Earth Day
By Wendi Williams, Editor & Extension Communications Specialist

Being good stewards of the earth is not a new concept. Millions of American children have learned about pollution and its environmental impact from resources like the *Weekly Reader*, a more than 100-year-old educational children’s magazine. But the *green* movement appears to be picking up steam and remains a popular topic of debate in and around environmental, political, and social circles. You could also say that “going green” has literally become fashionable. The fashion-conscious environmentalist buys clothing made of cotton and other organic materials. World governments continue to explore ways to protect the environment, particularly when it comes to alternative sources of energy.

As participants learned during Extension’s 2009 Urban-Rural Interface Conference, developing alternative energy is a complex, timely, yet worthwhile endeavor. In 2005, the United States, the world’s largest energy consumer, derived its primary energy sources from petroleum (40 percent), coal (23 percent), and natural gas (23 percent), followed by nuclear power (8.4 percent) and renewable energy (6.8 percent) (Wikipedia, 2009). The term “alternative or renewable energy” is used to describe other usable forms of energy that are taken from natural resources such as the wind, tides, the sun, biomass (biological material), or geothermal heat. But why is there such an urgency to become *green* consumers today?

Environmental Threats
In 1985, scientists discovered that the ozone layer in the Earth’s atmosphere was not only thinning, but had a big hole over the continent of Antarctica. By the year 1987, that hole was the size of the United States. Without this protective layer from the ultraviolet rays of the sun we are susceptible to skin diseases, damaged crops, and depleted food supplies for fish, not to mention being severely burned by the sun. Other environmental threats include air pollution from cars and power plants, and high sulfur levels from burning coal that cause acid rain. Acid rain is harmful to man, trees, and wildlife. And let’s not forget about global warming caused by heat trapped, manmade gases that consistently warm the earth. As a result of this phenomenon some areas experience drought, while in other areas glaciers melt causing sea levels to rise and flooding to occur. Either way it goes, pollution in its various forms is harmful to the existence of mankind and all species of plants and wildlife.

What can we do?
While America observes Earth Day on April 22, we should strive to make every day Earth Day by recycling glass, paper, electronic waste, and using products and services that are not harmful to our environment. Visit the Environmental Protection Agency’s Energy Star website at http://www.energystar.gov/ to find out what you can do to help protect our environment.

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*Metro News* is a quarterly newsletter published by the Alabama Cooperative Extension System’s Urban Affairs & New Nontraditional Programs unit at Alabama A&M University. Please visit us online at www.aces.edu/urban/metronews. *The online HTML version of this publication contains a complete listing of article references.* For inquiries, please contact the editor at 256-372-4953 or williw1@aces.edu.