



# How Does Your Garden Grow?

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## An Integrated Curriculum For The Washington Post Newspaper In Education Program

**A Word About How Does Your Garden Grow?**

Fairy tales, children's rhymes, early writings and even a Supreme Court case have included fruits and vegetables. As explorers discovered new plants, they brought back drawings, specimens and seeds. Today, these once-exotic edibles are part of our daily lives as we stop at the grocery store, the coffee shop and nursery.

Activities in this guide encourage interdisciplinary lessons and family engagement. Students receive lessons in botany, nutrition and healthy living as they plan and plant a garden. Examples of involvement in one's community are found in *Washington Post* reprints that focus on school and community gardens, Dumbarton Oaks Park and the National Arboretum.

Every section of *The Post* can be related to this theme. For example, teachers, take students to the STYLE section to read about art. Students create their own plein-air art, photograph subjects or do still life studies inside. Help students to create a show for others to enjoy — and review. From FOOD locate recipes and sales. In LOCAL LIVING find outdoor venues.



A reminder to *Post* program teachers: If you plan to use articles in this guide in the e-Replica format more than three months after their publication date, remember to bookmark them.

**ABOUT THE COVER**

A Sogetsu freestyle arrangement created by Ikebana artist Jane Redmond at the National Arboretum Show in 2008. Photograph by U. S. National Arboretum.

**Lessons:** A seed or small plant can provide interdisciplinary lessons in life science, nutrition, journalism and healthy living. Fruits and vegetables inspire artists, chefs and community activists.

**Level:** Low to High

**Subjects:** Botany, Life Science, Health, English

**Related Activity:** Art, Journalism, Mathematics, Social Studies, Home Economics

**NIE Online Guide**

**Editor** — Carol Lange

**Art Editor** — Carol Porter

**Contributing to this guide:** Artwork on pages 11 and 12 were contributed by Washington area painters Joele Michaud, Walter Bartman, Luba Sterlikova and Carol Porter, and photographer Bill O'Leary. Illustrative art by the masters have been featured in *Washington Post* articles.

**Available Online**

All Washington Post NIE guides may be downloaded at [www.washpost.com/nie](http://www.washpost.com/nie).

**Send comments about this guide to:**

Margaret Kaplow, Educational Services Manager, [kaplowm@washpost.com](mailto:kaplowm@washpost.com)

# How Does Your Garden Grow?

A new study published in HortTechnology suggests that children “may be in danger of losing direct contact with the natural environment.” This guide addresses this concern with activities from seed planting to botanical drawing, from applying math to garden plots to considering sustainability with a future king. Each is a different approach to a more intimate experience with plants.

## **Increase Vocabulary** *English, Science, Health, Reading*

Gardeners have specific tools and a specialized vocabulary. Reading the articles and doing the suggested activities in this guide will be easier if students can identify the tools and use the terms. “Tools of the Gardener” is organized as a quiz. It may be used to assess students’ knowledge before or after introducing the different implements.

“A Vocabulary Lesson for Lawn and Garden Learning” accompanies the March 2011 Adrian Higgins’ article “Getting the vegetable garden ready.” Joel M. Lerner compiled the informative entries which are excerpted from the more extensive glossary that was published in October 2007 in *The Washington Post*. These may be introduced before reading any of Higgins’ articles.

Teachers could pull terms from each of the articles or have students make a list of words and phrases they do not know as they read the articles. Individually or in groups, students may find definitions that work in this context.

## **Read About Fruits and Vegetables** *English, Art, Reading*

Seven delightful books are highlighted in the sidebar on this page. They introduce pre-school

and elementary-age children to plants. Read and discuss one of these with your students.

Can students think of other books they have enjoyed in which fruits and vegetables play a prominent role? Begin with tales such as Jack and the Beanstalk, The Princess and the Pea, Snow White (apple) and Cinderella (pumpkin). Some may have seen Miss Piggy interviewing these literary fruits and vegetables.

Older students might enjoy being reminded of the role that vegetables and fruits played in their early literary encounters.

Teachers may also review the books from the point of view of illustrators and artists. What styles are used?

## **Do the Math** *Mathematics, Botany, Science, Health*

The exercise on page 9 of this guide, “Plot Your Garden,” introduces the steps to planning the garden plot. Students use graph paper, establish a key, and decide whether to plant in rows or squares. They think through the process so there will be room to place plants and to weed, water and harvest.

Before students complete the plot, they must do some research of the growing cycle to decide which plants and how many

# Read About It

Aliki  
*Corn Is Maize: The Gift of the Indians*  
 HarperCollins Children’s Books (1996),  
 ages 5-8  
 The story of corn and the many uses of it

Creasey, Rosalind  
*Blue Potatoes, Orange Tomatoes: How to Grow a Rainbow Garden*  
 Sierra Club (2000), ages 7-11  
 How to plant and grow a variety of colorful vegetables

Ehlert, Lois  
*Eating the Alphabet*  
 Houghton Mifflin Harcourt (1996),  
 4 and under  
 Illustrated fruits and vegetables from A to Z

Falwell, Cathryn  
*Feast for 10*  
 Houghton Mifflin Co. (1996), ages 5-8  
 A family counts its way through shopping and dinner

Lin, Grace  
*The Ugly Vegetables*  
 Charlesbridge Publishing (2009), ages 4-8  
 While others plant flowers, this mother and daughter plant Chinese vegetables; illustrated glossary of vegetables and their Chinese characters, soup recipe

McMillan, Bruce  
*Eating Fractions*  
 Scholastic, Inc. (1993), ages 3-9  
 Food illustrates math concepts, recipes to practice fractions

Williams, Vera  
*Cherries and Cherry Pits*  
 Morrow, William & Co., (1991), ages 4-7  
 A child artist plants cherry pits and nurtures the young tree

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vegetables to purchase or to grow from seed. Questions could include:

- How far apart should plants be?
- Which flowers are beneficial to control insects?
- Which vegetables are members of their families most likely to eat?
- Which vegetables do they want to introduce for healthier diets?

Teachers may also design a math exercise to compare and contrast the cost of planting one's homegrown tomatoes (cost of seeds or plants, soil conditioner, water; yield) vs. buying them (cost per item or pound; regular and organic) in a market. In addition to cost, what other factors need to be considered?

**Prepare to Plant**

*Botany, Life Science, English, Health, Broadcast Journalism, Journalism*

Adrian Higgins, *The Post's* gardening columnist, covers ornamental and edible plants. In "April is not too late to start a veggie garden," he addresses when to begin gardens and what to do. He has a community garden plot in which he works alongside other gardeners, sharing advice from experience and his extensive knowledge.

If they have not done so, teachers should cover "A Vocabulary Lesson for Lawn and Garden Learning." "Getting the vegetable garden ready" is an example of a process essay. Higgins explains each of the steps needed to produce a flourishing vegetable garden. He also makes the case for a border of herbs and the beneficial role of flowers.

Use the videos by Higgins and Ed Bruske (see How to Grow a Garden sidebar) to enhance the articles.

Both are very helpful to visualize how to do the work as both men narrate the process to follow. In what ways does the Higgins' video illustrate his article's content and what does it add to the reader's experience?

Continue to follow Higgins in *The Post* and online. His May 4 column focuses on herbal gardening at community plots and in containers. In what ways do his columns appeal to a range of readers?

**Keep an Observation Log**

*Life Science, English, Art*

"Be a Gardener" is provided to give students a summary of the steps to follow to create a garden and to give them suggestions for recording the gardening experience.

The observation log could become a writer's journal composed of observations, quotations from other gardeners, selections from science books and research as well as poetry. The log would be enhanced with illustrations and photographs.

**Consider a Community Garden**

*Journalism, English, Composition*

The community garden plot is any piece of land gardened by a group of people. In the D.C. metropolitan area there are several well-established community garden plots and the newer one at the White House. Locate any that are near your school — perhaps, your school has even begun a community garden.

In "Season of disappointment" Larissa Roso covers the story of a community garden that faces closing temporarily, and, perhaps, for good. Read and discuss the first page of the story and answer the questions with students.

**How to Grow a Garden**

[www.washingtonpost.com/local/sowing-growing-and-harvesting-in-a-community-garden/2011/03/23/AB0nzMJB\\_video.html](http://www.washingtonpost.com/local/sowing-growing-and-harvesting-in-a-community-garden/2011/03/23/AB0nzMJB_video.html)

**Sowing, growing and harvesting in a community garden**

*The Washington Post's* Adrian Higgins preps his community garden plot for the start of spring. The 5:27 video shows Higgins at work, many tips given.

[www.dc-urban-gardeners.com/](http://www.dc-urban-gardeners.com/)

**DC Urban Gardeners**

Volunteers to make "greening and growing projects happen" and to teach how to grow plants. Information and links, include composting, school gardens and urban ecology.

[www.monkeysee.com/play/10009-how-to-grow-a-vegetable-garden](http://www.monkeysee.com/play/10009-how-to-grow-a-vegetable-garden)

**How to Grow a Vegetable Garden**

Ed Bruske, a former *Washington Post* journalist and president of D.C. Urban Gardeners, demonstrates in easy-to-understand videos the tools and steps to create an urban garden. Series includes the introductory video, choosing a site, testing the soil (explains reasons for testing soil, especially in urban setting), how to plot the vegetable garden bed and selecting plants.

[www.revivevictorygarden.org/](http://www.revivevictorygarden.org/)

**Revive the Victory Garden**

Resources include planning a vegetable garden, layout of garden and food storage

[www.dcschoolyardgreening.org/](http://www.dcschoolyardgreening.org/)

**D.C. Schoolyard Greening**

A project of the D.C. Environmental Education Consortium. Information, projects and D.C. School Garden Week (Oct. 10-15, 2011).

[www.washingtonyouthgarden.org/](http://www.washingtonyouthgarden.org/)

**Washington Youth Garden**

At the U.S. National Arboretum, a year-round environmental science and food education program since 1971. SPROUT program for D.C. metropolitan region

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The second page is an activity that gets students to think like reporters and readers. What else do readers want to know? Who should be interviewed and what sources should be researched to get the answers? Students are provided information and quotations in order to complete the article. These are not given in the order used by Roso.

If students have not studied attribution, review the handling of Kemp's quotation and read other *Washington Post* articles to find examples of the attribution of long and short quotations and paraphrases. The source of information should be clear and accurately presented.

**Fight for School Gardens**

*Health, Journalism, Debate, Community Involvement*

Michael Birnbaum reports in "Frustration over school gardens takes root" on some Montgomery County parents' attempt to establish a vegetable garden at their local school. Questions for discussion could include:

- Why do parents want to establish a vegetable garden at the school?
- What objections do Montgomery County school administrators have?
- Are there any examples of gardens at MCPS schools?
- To what extent have area school systems embraced vegetable gardens on school grounds?
- What is a compost pile?

Have students do additional reading on the D.C. Healthy Schools Act. What provisions are included in this program?

If your school has a vegetable garden, who and how is it maintained? Has your school encountered any of the potential

problems raised in Montgomery County?

If your school does not have a vegetable garden, would you want one? Debate the pro and con of the issue. Students could write letters to the principal or to the editor of the student newspaper with their positions. These could be illustrated.

**Design a Healthy Sandwich**

*Health, Home Economics, English*

Give students "Building a sandwich that's better for you," a HEALTH Consumer Reports Insights feature. What credentials does the author have? The use of boldface and larger typeface lets the reader know the main ideas. What are the four main points about healthy sandwiches? What are the recommended vegetables for sandwiches?

"Build Your Own Healthy Sandwich" applies the concepts. Students create a healthy sandwich that they would enjoy making, especially if they grow some of the ingredients.

Two types of writing assignments can be given. To give students practice in step-by-step, process writing, have them write recipes for the sandwich: name, a list of ingredients and steps to follow. To give students practice in informative narration, they would be asked to write a short essay similar to "Building a sandwich that's better for you."

**Make an Outline**

*English*

"Building a sandwich that's better for you" can easily be used to practice outlining skills. Each of the four main points has at least two subpoints. Students learn useful

**For Your Benefit**

[www.cbp.gov/xp/cgov/travel/clearing/agri\\_prod\\_inus.xml](http://www.cbp.gov/xp/cgov/travel/clearing/agri_prod_inus.xml)

**Bringing Agricultural Products Into the United States**

U.S. Customs and Border Protection (CBP) explains why inspectors at international airports, border crossings and seaports may take food, plants and souvenirs from you.

[www.ams.usda.gov/AMSv1.0/nop](http://www.ams.usda.gov/AMSv1.0/nop)

**National Organic Program**

Program administers national production, handling and labeling standards

[www.usda.gov/wps/portal/usda/usdahome?navid=ORGANIC\\_CERTIFICATIO](http://www.usda.gov/wps/portal/usda/usdahome?navid=ORGANIC_CERTIFICATIO)

**USDA Organic Certification**

Links to all aspects of the standards, production, marketing and labeling

[www.washingtonpost.com/wp-srv/artsandliving/foodandddining/features/2010/farmers-markets/index.html](http://www.washingtonpost.com/wp-srv/artsandliving/foodandddining/features/2010/farmers-markets/index.html)

**The Washington Post 2010 Roundup of Farmers Markets**

This interactive map gives the locations of farmers markets in Maryland, Virginia and D.C. Another feature, allows you to locate markets by lists. Check in your area to see if they have returned.

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information and review the outline format.

**Eat Weeds**

*Botany, Science, Health, Home Economics, Journalism*

The Post’s informational graphics artist and illustrator Patterson Clark gives a different perspective on dandelions. In “Eat your weeds,” an URBAN JUNGLE feature, he combines his talents as an artist, researcher and informational graphic designer.

Patterson exhibits many dimensions of a writer in the text. Have students do a close reading for the kinds of information he provides from botany, etymology and history, nutrition and medicinal findings. How has he ordered the information to grab and to keep the reader’s interest?

Take a closer look at the illustration. Questions for discussion might include:

- What is “*Taraxacum officinale*”?
- What stages of a dandelion’s life are illustrated?
- What does seeing the tap root add?
- How do the plant and humans make use of the tap root?

Read and discuss the informational graphics. What is “melanoma”? What do these terms communicate: “self-destruct,” “suffered,” “apoptosis” and “cell death”? What information is provided? What do the terms “viability” and “concentration” mean?

Review the SOURCES. What do you learn about Patterson’s preparation to produce the illustration, text and infograph?

Have any students been persuaded to eat dandelion roots? Make a green salad from its leaves?

Add the dandelion flower to a salad to add color and antioxidants?

If time allows, students could be assigned other weeds to research. Are any other plants that we consider weeds edible? [Possible answers: Japanese knotweed, purlane, cattails, burdock, chicory] Have nutritional or medicinal value?

**Find Foods, Prices and Recipes**

*Mathematics, Health, Home Economics, Consumer Education*

Find foods that are healthy for you. Instead of visiting grocery stores in the area, use the FOOD section and the Sunday grocery store inserts. These provide a survey of produce availability and specials. Students could compile a list of fruits and vegetables and the prices at different stores. What is the best graph or chart to use to communicate this information?

If fruit stands and farmers markets are located near to your school, their produce and prices could be added to the comparison and contrast. Also factor in green considerations such as the carbon footprint.

Locate recipes using fruits and vegetables in the FOOD section. Do the math to double or triple recipes or to cut them in half.

**Sketch It**

*Art, Photography, Health, Home Economics*

Two reproducibles, “Sketch It. Photograph It. Paint It — en Plein Air!” and “Let Artists Inspire You,” could be used with students to introduce art projects using fruits, vegetables and plants.

*Plein air Painting*

This experience appeals to students who are eager to get out of the classroom and into the fresh air.

**Hodge Podge**

[www.communitygarden.org/](http://www.communitygarden.org/)

**American Community Gardening Association**

Non-profit to encourage beautifying neighborhoods, producing nutritious food, and conserving resources in Canada and the U.S.

[www.gardenmosaics.cornell.edu/](http://www.gardenmosaics.cornell.edu/)

**Garden Mosaics**

Youth and elders investigate plants, people and cultures in gardens; explore this rich site: i•m•science with personal stories and forms; Science Pages in English and Spanish are an excellent starting point for research, well illustrated; Action Projects; Research under the auspices of Cornell University

<http://www.eurekaalert.org/features/kids/2010-04/aft-fp032610.php>

**Flower power**

EurekaAlert press release about a protein’s signals

<http://hscweb3.hsc.usf.edu/health/now/?p=11541>

**Sun protection program increases hat use among 4th graders**

A sun protection study in Florida

[www.princes-foundation.org/](http://www.princes-foundation.org/)

**The Prince’s Foundation**

International projects for building in a more sustainable way

[www.princescountrysidefund.org.uk/](http://www.princescountrysidefund.org.uk/)

**The Prince’s Countryside Fund**

Working to secure a sustainable future for British agriculture

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Look for a landscaped area or vegetable garden on school grounds or get permission to walk to a nearby park or vegetable market. Encourage students to carry a small sketchpad on weekends or when on family trips so they can make drawings or to bring a camera to capture images for paintings.

*Still Life*

The youngest students could be introduced to botanical painting through a still life exercise. You will need paper, colored pencils, watercolors or crayons and lemons. Group students and give each group a lemon. Students should be asked to touch, smell, feel and describe the lemon. Taste will come later. After students have written (prose and/or poetry) and shared their sensory experiences, ask students to place the lemons where you designate (one alone or grouped to create a still life arrangement). Students draw the lemon(s). Teachers can zest the lemon peel to give students another manner to experience the lemon, make lemonade and serve lemon cookies or lemon cake.

Many cookbooks are beautifully illustrated. Show them to students. Provide recipes that use vegetables. The recipes may come from the FOOD section of *The Post*. Ask students to illustrate one of the recipes.

The National Gallery of Art in D.C. sells *The Artist's Table: A Cookbook by Master Chefs Inspired by Paintings in the National Gallery of Art*. Teachers can purchase prints of many of the works found in the book to use with students.

**Connect with Plants**

*Botany, Science, Health, Art, Photography, Journalism, English*

An April 2011 press release of the American Society for Horticultural Science encouraged “horticultural interventions,” based on a study of

9- and 10-year-olds. Authors of the study recommend that students receive knowledge of plants outdoors rather than inside. Two ways to achieve this are the suggested art activities: “Sketch It. Photograph It. Paint It — en Plein Air!” and “Let Artists Inspire You.”

Students may also go to local parks, gardens and open-air markets to conduct interviews. “D.C. Gardens and Retreats” and “Virginia and Maryland Gardens and Markets” give a few of the local venues. Have students brainstorm questions they could ask farmers at the market, shoppers at a fruit stand and people relaxing in a garden. How does the focus of the Q&A or article influence the questions asked?

Encourage students to go with adults to one of these places to write reflections, to photograph plants and to sketch settings.

**Save It**

*Botany, Science, English, Community Involvement*

Two articles are included in this guide to give examples of community involvement in keeping and maintaining green areas for citizen enjoyment and scientific value. They act as a springboard for class discussion of other projects, near to your school and in your community that could use community engagement.

What happens when budgetary restraints force federal institutions to review all expenses? At the National Arboretum they could mean the demise of 10,000 azalea shrubs and more. Read and discuss “Arboretum reverses decision to destroy azalea display after public backlash.”

- How did the public know that the azaleas and the boxwood collection were in danger? How is informing the public a role of the press?
- Why did the Arboretum target these plants?
- Has an anonymous donor saved the azalea? To what extent?

- What is the source of the reporter’s information about the Friends of the National Arboretum?

- Is this a new problem for the arboretum leadership?

Give students “Conservancy formed to rescue Dumbarton Oaks Park” to read. Who is Edward O. Wilson? Why is Higgins’ introduction of Wilson appropriate for this article’s focus? Have students summarize the background of Dumbarton Oaks to establish its importance to history and the community.

- What problems do both parks share? [Underfunding and inadequate maintenance]
- Who is coming to the rescue to Dumbarton Oaks Park?
- What are plans for Dumbarton?

**Dialogue with a Future King**

*Social Studies, Health, Botany, Science*

Give students “The future king on the future of food: Prince Charles attends Future of Food conference at Georgetown” to read. *Washington Post* writer Manuel Roig-Franzia has a news peg for this article — a conference at Georgetown University.

Discuss how Roig-Franzia characterizes Prince Charles and his speech. What is meant by “sustainable farming” and “green living” that the future king promotes?

What was the purpose of the conference?

For balance, the article includes the views of those who object to Prince Charles as spokesman for green living. What are some specific examples of their side? What are some of the ironies of this trip?

Discuss the ideas that Prince Charles and the conference present. ■

**ANSWERS Tools of the Gardener:**

1. I; 2. C; 3. F; 4. J; 5. E; 6. B; 7. H; 8. D; 9. A; 10. G



# Tools of the Gardener

*Match the definition to the picture of the tool it defines.*



## Definitions

**a. Cultivator:** Implement for loosening soil while crops are growing, blades narrow enough to be drawn between rows to destroy weeds and aerate the soil

**b. Garden fork:** Implement with a handle and usually four short, sturdy tines. Used to loosen, lift and turn soil

**c. Hoe:** Gardening tool with a thin metal blade at a right angle to its long handle, used for weeding and breaking up soil (n); to dig soil or thin out plants (v)

**d. Hose:** Flexible tube for watering plants and grass (n); to spray, water or drench with a hose (v)

**e. Pitchfork:** Implement with handle and longer tines used to move materials such as compost and manure

**f. Pruner:** Similar to sturdy scissors, handheld shears used to cut branches no larger than 1/2 inch

**g. Rake:** Tool with prongs to gather material (leaves, for example) or to loosen or smooth the surface of the soil

**h. Shovel:** Garden tool for breaking and turning the soil, metal end may be a variety of shapes and sizes; the metal blade is fixed to a handle that is usually made of ash or maple

**i. Spade:** Hand tool with a long handle, with rest on the top of digging end for the foot to rest to push it into the ground; used to loosen ground and break up lumps of soil; metal end may be pointed to facilitate digging

**j. Trowel:** Garden hand tool with a pointed, scoop-shaped metal blade and a handle; helpful in breaking up soil and planting bulbs and small plants



# Plot Your Garden

Determine where you will place your garden. Find a place that gets at least six hours of sun each day for healthier plants and produce. Also think of how you will water your plants.

Once you have your garden area selected, plan your garden on graph paper.

After you determine the scale you will be using, draw the boundaries of the plot.

Read about plants or check the seed packages or directions that come with plants. How far apart are they to be planted? Be sure not to crowd the plants. If you are planting pole beans or cucumbers, use a fence for support if one is located on the border of your garden plot. By planning before you purchase plants, you will know how many plants you can accommodate.

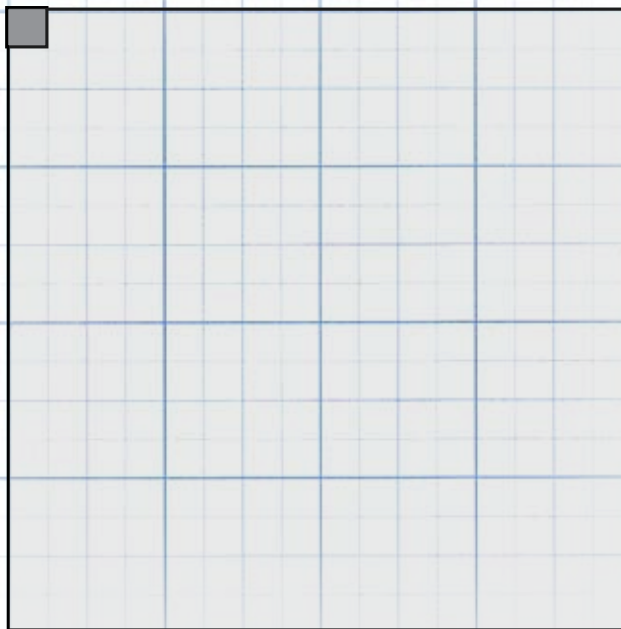
Decide if you are going to grow your plants in rows or in squares. Most gardeners use rows that are easy to hoe between to get rid of weeds. Other gardeners plant in squares of soil. If you use the latter plan, you will mark your graph in 2 ft. x 2 ft. or 4 ft. x 4 ft. squares and allow for walking space between squares. Whichever plan you use, you need room to harvest your fruits and vegetables, to weed and to water plants.

You can plant slow growing plants with fast growing plants if your garden plot is small. For example, radishes are fast to mature and carrots are slow to grow. They can be sown together or placed in parallel rows. Another possible combination is to alternate rows or blocks of leaf lettuce and tomatoes.

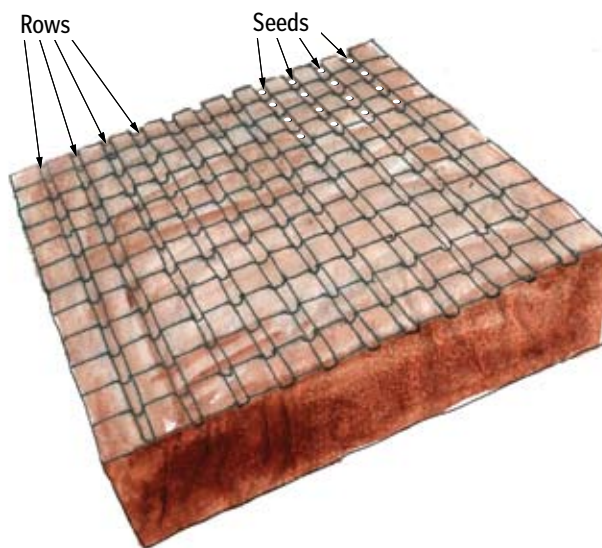
If your garden is very productive, you will feed your family — and neighbors.

## Sample 4' x 4' Garden Plot Module

Use graph paper to design placement of the seed and plants.



**Rows and Seeds** This illustration shows how seedlings can be planted in modular 2-, 3- or 4-foot rows.



## Read the directions on the back of packages.

This information tells particulars about each plant.





## Be a Gardener

One plans and plants a garden as a labor of love, source of exercise and weeks of healthy eating. There are elements of mathematics, botany, chemistry and physical education involved. The gardener is also an observer, detective and journal keeper.

### Pull the Weeds

Don't just tug at the tops that are showing above the soil. Dig with a shovel or use a cultivator or hoe to get roots out and turn the soil. Try to get down six to eight inches so the soil is loose, not hard.

### Prepare the Soil

Remove stones and sticks. Level the area with a rake. Determine if you will be planting at ground level or in raised beds. In the areas where fruits and vegetables will be planted, add manure, compost or fertilizer. You may also add gypsum which decreases evaporation and adds calcium to the soil.

### Start from Seeds

If you have patience and time, start your plants from seeds. You will need small containers, starting soil and a source of light. Do not forget to water them.

Gardeners sometimes keep a record of the seeds from first planting, through the germination process until the seedlings are large enough to transplant into the garden plot. One of the reasons we know what plants grew in Colonial America is the conscientious records kept by landowners. >

### Select the Plants

Another option is to purchase plants from a nursery or farmers market. Someone else has done the work of planting seeds and caring for them. You will look for the larger, healthy looking plants for your garden.

### Care for Your Plants

Water and weed the plants. You have taken time to plan the garden and to plant healthy plants. Don't neglect them. For plants to survive and to grow they need water. Most vegetables require one inch of water each week. You can be eating well for months.

### Keep an Observation Log

Create an observation log to record the progress of your garden. You may wish to include photographs or make sketches to accompany your written observations. Types of information include:

- Growth of plants
- Watering schedule
- Appearance of blossoms
- First fruit and vegetables
- First harvest
- Weekly yield
- Manner of dealing with pests.
- Be sure to identify those insects that are beneficial to the balance of nature.

|                      |       |                    |       |
|----------------------|-------|--------------------|-------|
| Seed Name _____      |       | Date Started _____ |       |
| <hr/>                |       |                    |       |
| Light                | _____ | Natural sunlight   | _____ |
| Fluorescent lighting | _____ | Hours per day      | _____ |
| Water                | _____ | Amount             | _____ |
| Frequency            | _____ |                    | _____ |
| Date Transplanted    | _____ |                    |       |
| Notes                | _____ |                    |       |
|                      | _____ |                    |       |
|                      | _____ |                    |       |
|                      | _____ |                    |       |
|                      | _____ |                    |       |



# Sketch It. Photograph It. Paint It — en Plein Air!

Go to a farmers market with your sketchpad, pencils or markers. Many artists use outdoor gardens, markets, flower and botanical gardens as their settings. If working outside, you are plein air painting (from the French term *en plein air* meaning “in the open air”).

Drawing from life is always best. Before you sketch, use your camera to record your subject, because you may forget the colors. The light changes every 20 minutes. When you are completing your composition, you will have a good reference.

When you create your finished art, you can choose oil or chalk pastels, acrylics or oil paints, watercolor paints or watercolor pencils. Even crayons. Or make torn-paper collages. The camera can also be your medium.

Below are some examples of what can be done.

**Note:** Your personal safety is very important. When you are outside concentrating on your drawing, always have an adult with you.



Antonio Ole in studio, Brussels



Sunflowers at Eastern Market, D.C.

Mark Gail — The Washington Post



Kyungnim Yun at Kenilworth Aquatic Gardens, D.C.  
Michael Chavez-Robinson — The Washington Post



Three Geranium Pots, watercolor, Spain

Carol Porter



Fruit stand, Eastern Market, D.C.

Barbara L. Salibury



Franciscan Monastery, D.C.

Tom Allen — The Washington Post

## Sources of inspiration and places to create your artwork

**Museums/Sculpture Gardens** Check first with museum staff for approval to draw, sketch or paint inside.

**National, State and Local Parks** Check hours.

**Farmers Markets/Flower Marts** Take an easel and stool.

**Your Room or Studio** Set up a comfortable workspace to paint or to compose a still life.



U.S. National Arboretum, D.C.

Tom Allen — The Washington Post



# Let Artists Inspire You

Botanical artists use plant life as their subject. They combine observation, science and art to create an image.

Find your style by experimenting. Sketch in a museum, paint in your classroom studio or work at home. Select fruits, vegetables and flowers to create a still life arrangement. Or buy a print at a gallery to inspire you — examples are found in the remains of Pompeii, the oil

paintings of the Middle Ages and Renaissance, and the more modern works of Vincent van Gogh, Francisco Goya and Mary Cassatt.

Famous artists from the past and local artists created the images below. Some worked hard to be “botanically correct” while others used their imagination to create an interpretation of the objects. Copy them or let them inspire you.



*Still Life with Apples and Peaches*  
Paul Cézanne, oil on canvas



*Oysters*, 1862  
Édouard Manet, oil on canvas



Vincent Van Gogh, oil



Leslie Carol Berge, watercolor on paper



Giuseppe Arcimboldo, oil on panel



Walter Bartman, oil



Luba Sterlikova, oil pastel



Joelle Michaud, watercolor on paper



Bill O'Leary — The Washington Post, photograph



# D. C. Gardens and Retreats

*Washington, D.C., is a city of green areas — the National Mall, impressive public gardens and cozy private spaces. Also, tucked in corners are community plots with avid gardeners producing an array of fruits, vegetables and flowers.*

[www.doaks.org/gardens](http://www.doaks.org/gardens)

## **Dumbarton Oaks**

R and 31st streets  
Washington, D.C.

[www.myfranciscan.org/](http://www.myfranciscan.org/)

## **Franciscan Monastery**

1400 Quincy Street, NW  
Washington, D.C. 20017-3087  
(202) 636-4247

[www.nps.gov/rocr/index.htm](http://www.nps.gov/rocr/index.htm)

## **Rock Creek Park**

A Piedmont stream valley,  
extending south from the Maryland  
-D.C. border to the Potomac River

[www.usbg.gov](http://www.usbg.gov)

## **The United States Botanic Garden**

100 Maryland Avenue, SW  
Washington, D.C. 20001

[www.usna.usda.gov/](http://www.usna.usda.gov/)

## **U.S. National Arboretum**

3501 New York Avenue, N.E.  
Washington, D.C. 20002-1958  
(202) 245-2726

[www.washingtonyouthgarden.org/](http://www.washingtonyouthgarden.org/)

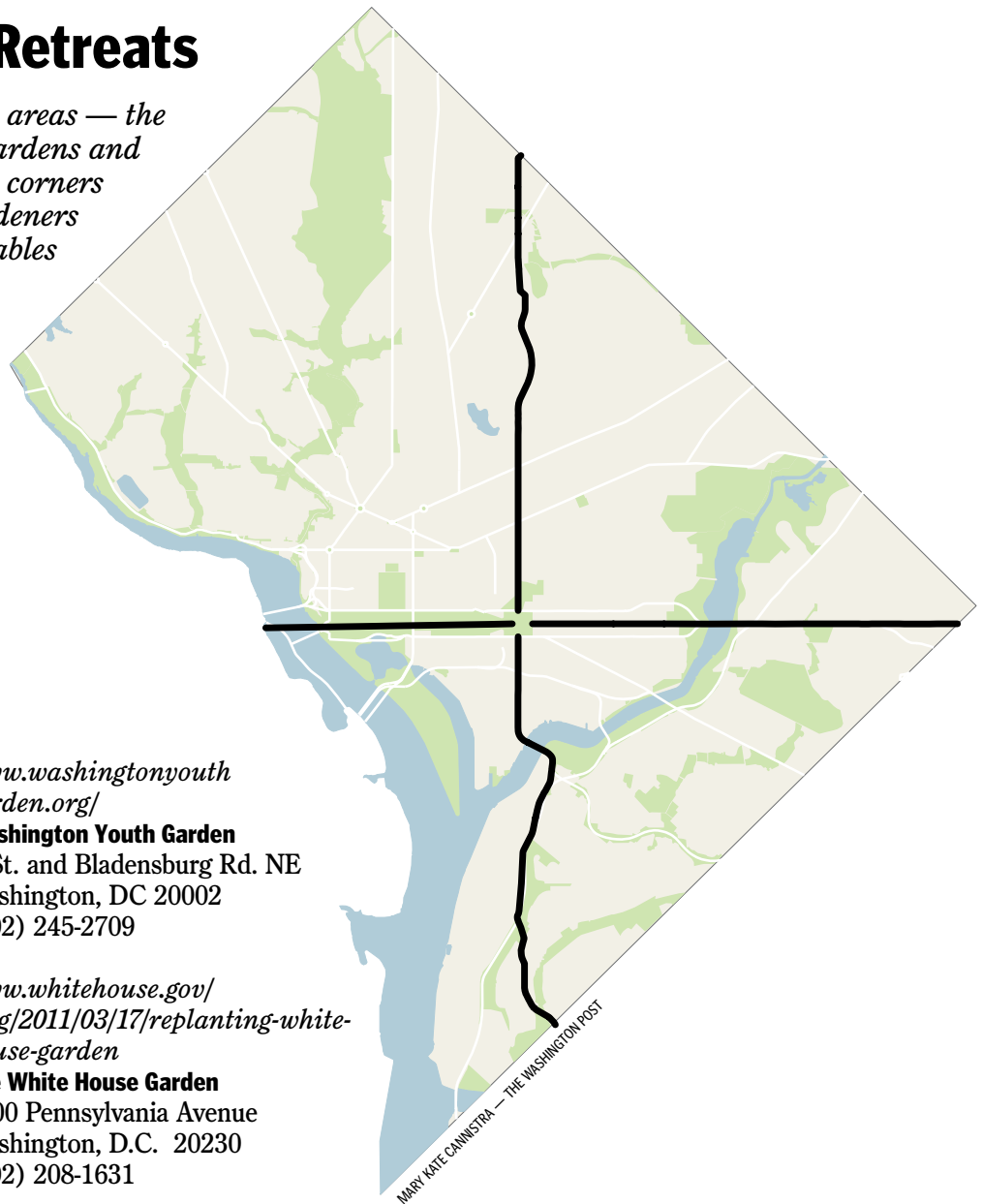
## **Washington Youth Garden**

R St. and Bladensburg Rd. NE  
Washington, DC 20002  
(202) 245-2709

[www.whitehouse.gov/  
blog/2011/03/17/replanting-white-  
house-garden](http://www.whitehouse.gov/blog/2011/03/17/replanting-white-house-garden)

## **The White House Garden**

1600 Pennsylvania Avenue  
Washington, D.C. 20230  
(202) 208-1631



**The District of Columbia in May 2011 passed the D.C. Healthy Schools Act. Through it, D.C. schools may receive grants to set up school gardens and create compost piles. At least nine schools have vegetable gardens.**

SARAH L. VOISIN — THE WASHINGTON POST

# Maryland and Virginia Gardens and Farmers Markets

The public gardens of the metropolitan area provide retreats and open-air botanical laboratories. Rare and common plant species mix in their collections to educate and to inspire all who venture into these green spaces.



SANDRA LEAVITT LERNER FOR THE WASHINGTON POST

**Azaleas abound in many area gardens each spring.**

## Maryland

[www.mda.state.md.us/  
md\\_products/farmers\\_  
market\\_dir.php](http://www.mda.state.md.us/md_products/farmers_market_dir.php)  
**2011 Maryland Farmers'  
Market Directory**  
Listed by county

[www.brooksidegardens.org](http://www.brooksidegardens.org)  
**Brookside Gardens**  
1800 Glenallan Avenue  
Silver Spring, MD 20902  
(301) 962-1400

[www.dnr.state.md.us/pub-  
liclands/tawesgarden.asp](http://www.dnr.state.md.us/publiclands/tawesgarden.asp)  
**Helen Avalynne  
Tawes Garden**  
580 Taylor Avenue at Rowe  
Boulevard  
Annapolis, MD 21401  
In the 5-acre garden Mary-  
land's geographic areas are  
featured. "The Black-Eyed  
Susan" newsletter; summer  
day camp

[www.ilovegardens.com/  
Maryland%20Gardens.htm](http://www.ilovegardens.com/Maryland%20Gardens.htm)  
**I Love Gardens.com**  
List of Maryland gardens

[www.hgic.umd.edu/](http://www.hgic.umd.edu/)  
**Maryland Home and Garden  
Information Center**  
Pests, plants and master  
gardeners

[www.nps.gov/pisc/index.  
htm](http://www.nps.gov/pisc/index.htm)  
**Piscataway Park  
Accokeek, MD**  
National Colonial Farm  
depicts a Maryland middle-  
class family farm on the  
eve of the American  
Revolution; Park protects  
the view from George  
Washington's Mt. Vernon  
across the Potomac River

[www.smallmuseum.org/  
schifferstadt.htm](http://www.smallmuseum.org/schifferstadt.htm)  
**Schifferstadt Architectural  
Museum Gardens**  
110 Rosemont Avenue,  
Baker Park  
Frederick, MD 20701  
German colonial house  
surrounded by  
gardens, apple  
orchard and beds  
of herbs and  
18th century  
vegetables and  
small fruits

Residents can purchase fresh vegetables, fruits and berries at local farmers markets and produce stands. Area estates and gardens also provide an opportunity to see produce on vines and boughs before they are harvested.



JONATHAN ERNST — REUTERS

**Cherries and berries for sale at the Arlington Farmers Market.**

## Virginia

**Old Town Alexandria  
Farmers' Markets**  
Market Square  
301 King Street  
Saturdays, 5:30 a.m.-11 a.m.,  
year round

[www.arlingtonva.us/  
departments/ParksRec-  
reation/scripts/facilities/  
ParksRecreationScriptsFa-  
cilitiesCommunityGardens.  
aspx](http://www.arlingtonva.us/departments/ParksRecreation/scripts/facilities/ParksRecreationScriptsFacilitiesCommunityGardens.aspx)  
**Arlington Community  
Garden Program**

[www.gardensites.info/  
states/va.htm](http://www.gardensites.info/states/va.htm)  
**Garden Sites In Virginia**  
Web overview of major  
gardens

[www.fairfaxcounty.gov/  
parks/gsgp/](http://www.fairfaxcounty.gov/parks/gsgp/)  
**Green Spring Gardens**  
4603 Green Spring Road  
Alexandria, VA 22312  
(703) 642-5173

[www.meadowlarkgardens.  
org/](http://www.meadowlarkgardens.org/)  
**Meadowlark Botanical  
Gardens**  
9750 Meadowlark  
Gardens Court  
Vienna, VA 22182

[www.mtvernon.org](http://www.mtvernon.org)  
**Mt. Vernon**  
3200 Mount Vernon  
Memorial Highway  
Mt. Vernon, VA  
George Washington's house,  
farm and burial site

[www.oatlands.org/](http://www.oatlands.org/)  
**Oatlands Historic House  
and Gardens**  
20850 Oatlands  
Plantation Lane  
Leesburg, VA 20175

[www.vdacs.virginia.gov/  
vagrown/index.shtml](http://www.vdacs.virginia.gov/vagrown/index.shtml)  
**Virginia Department of Agricul-  
ture and Consumer Services**  
Links to farmers markets,  
farm stands and pick-your-  
own farms; recipes, food  
festivals



# Building a sandwich that's better for you

It's easy to turn a classic hoagie into a diet hero. Follow these tips from Matt Goulding, a chef and co-author of *Eat This, Not That!* (Rodale Books).

## Consider your bread

Choose whole-grain breads, which are high in fiber and various nutrients. Look for those with fewer than 150 calories per slice, since a sandwich, in total, should have no more than about 400 calories.

- Good choices: **Thomas' Double Fiber Honey Wheat**

**English Muffins** have 120 calories and five grams of fiber. Their small size encourages stacking sandwiches high, which tricks the brain into thinking that you're eating more than you really are. **Weight Watchers 100% Whole-Wheat Pita Pocket Bread** has only 100 calories but nine grams of fiber.

## Opt for home-cooked meat

Cold cuts are often loaded with sodium as well as nitrates and nitrites, preservatives that have been linked to an increased risk of cancer. If you do buy cold cuts, try to avoid smoked meats, which are often particularly high in sodium.

- Good choices: **Hormel**

**Natural Choice's** line of packaged deli meats claim they're free of added nitrates and nitrites. Three slices of its oven-roasted turkey contain 50 calories, one gram of fat and 490 milligrams of sodium. Labels on **Boar's Head**

**All Natural** meats say they have no added nitrates or nitrites and are certified by the American Heart Association as being low in saturated fat and cholesterol. And Boar's Head has been ahead of the curve in reducing sodium in its meats.

## Melt the cheese

That releases its moisture and flavor, so you can use less mayo or other high-calorie condiments.

- Good choices: **Swiss** tends to lower in sodium. **Mozzarella** tends to have fewer calories. For both, choose low-fat varieties.

## Be creative with condiments

Replace mayonnaise with guacamole, hummus or black-bean dip. Or use avocado strips or peppery *arugula*.

- Good choices: **Wholly Guacamole Classic** has four grams of healthy fat and 50 calories per serving. **Hellman's Mayonnaise Dressing with Extra-Virgin Olive Oil spread** has slightly more than half the calories of standard mayo. Hellman's also offers a cholesterol-free canola-based product.

© Copyright 2010, Consumers Union of United States, Inc.

## Build Your Own Healthy Sandwich

Create a sandwich that uses fresh fruits or vegetables. What will be ready to harvest in your garden or to buy at a market?

Use the advice given by Matt Goulding to select the bread you will use. Will your sandwich use two slices? Be open face? Or be a wrap?

Will you include meat or be all fruits and vegetables?

Complement means to complete or perfect something. Condiments such as salt, pepper, mustards, relishes and sauces add to the taste to improve, enhance or adjust the flavor of ingredients. What condiments will you use to add more flavor or to complement the textures of the healthy ingredients you are using?

What will you name your sandwich?



ALAMY

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**“I came here to have spiritual sustenance and beauty. It’s beautiful.”**

— **Kerry Kemp**, gardener

# Season of disappointment

*A community garden on Masonic temple grounds must close to facilitate the building’s renovation*

By Larissa Roso

Spring has come to the Temple Garden near Dupont Circle with a profusion of red and purple tulips and yellow daffodils. Snap peas, lettuce and garlic are popping up, soon to be followed by tomatoes, eggplants, beans and melons for harvest throughout summer.

But for all of the cheerfulness that spring brings to gardens, this is a sad season for the gardeners of Temple Garden. The quarter-acre community garden is on private land owned by the Temple of the Supreme Council of the 33rd and Last Degree of the Ancient and Accepted Scottish Rite of Freemasonry for the Southern Jurisdiction of the United States, or House of the Temple, for short.

After more than two decades of providing herbs, flowers, vegetables and fruit, the garden will close in November to accommodate a renovation of the temple, on 16th Street, NW.

The garden is needed as a space for construction crews to store and prepare materials as they upgrade the electrical system, plumbing and elevators in the temple. The renovation could take years,



ASTRID RIECKEN FOR THE WASHINGTON POST

**Kerry Kemp has worked the land at Temple Garden for 15 years.**

and there’s no certainty that the garden will reopen after the work is completed.

The 100 members who plant and maintain the garden on 15th Street NW between R and S streets, and the 75 people on its waiting list, say they will mourn not only the flowers and crops, but also the peace the garden has brought them in a bustling city.

“Everyone is devastated,” said Kerry

Kemp, who has gardened at Temple Garden for 15 years. “It’s an urban oasis, a place for refuge.”

After the terrorist attacks of Sept. 11, 2001, she added, “everyone came here to have a community and regroup. My mother died last year. I came here to have spiritual sustenance and beauty. It’s beautiful. It’s like the secret garden.”

**T**his article was published on April 19, 2011, in the Metro section of *The Washington Post*. What does this indicate about the timeline given gardeners? Whose point of view is missing from the article at this point?



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**Season of disappointment** | *continued*

Use the following information and quotations to write the rest of the article on your own paper. You may change the order of the following to best tell the story. Be sure to provide proper and accurate attribution.

|                      |  |
|----------------------|--|
| <b>1911-1915</b>     | Construction of the Masonic Temple   |
| <b>2001</b>          | D. C. Council approved the closing of an alley in the center of the House of the Temple property on the condition that temple keep the community garden open for at least five more years. |
| <b>April 9, 2011</b> | Letter of intent sent to David Rosner, Temple Garden Association president   |

**Barbara Golden**, an attorney for the House of the Temple, in an interview stated:

*"In fact, we kept it beyond that. We wanted to be a good neighbor. We weren't doing anything different in the building. We weren't planning these renovations. We didn't need it. Now we do."*

If a compromise can't be found, the group will look for places where it can relocate and start a new garden.

Rosner and Kemp plan to ask the temple for a meeting to discuss the closure.

Temple officials in an interview indicated they had no choice but to close the garden because the renovations are urgent.

Golden indicated the gardeners will have time to make new arrangements.

**David Rosner stated in an interview:**

*"We are going to ask them to reconsider and if there's anything we could work out. Our primary message is going to be: Thank you for what you've done for us. The secondary is: Is there anything we can do? Are there alternatives we can explore?"*

**Kemp stated:**

*"This is where our heart is."*

Tom Mayes, who has had a plot since 1998, indicated the experience has brought moments of pure joy — the first goldfinches in late spring and the sunflowers still blooming in September, "brilliant against the clear blue skies."

**Mayes stated:**

*"The rosemary bush in my plot is the oldest thing there. I've used it in hundreds of recipes, but the most frequent is the homemade focaccia. I love the smell of that plant as I brush past it. And I note that in the meaning of plants, rosemary is for remembrance."*

**WHICH PHOTO WILL YOU USE?**

PHOTOS BY ASTRID RIECKEN FOR THE WASHINGTON POST

**Signs at Temple Garden designate walking paths among plots.**



**Chris Dragisic, top center, and Kerry Kemp read at a table while Brad Peniston collects his tools at Temple Garden.**



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## URBAN JUNGLE

*The changing natural world at our doorsteps.***Eat your weeds**

People who curse the **dandelions** dotting their manicured lawns this spring may not recognize a friend when they stomp on one.

A dandelion's tap root can penetrate and loosen hard-packed soil, pulling up nutrients from as deep as 15 feet, making essential minerals available to other lawn plants, including turf.

Brought to North America by European colonists, *dent-de-lion* (French for "lion's tooth," named for its fang-shaped leaf margins) has been harvested for use as food and medicine for thousands of years.

Less bitter if picked before the flowers appear, leaves are rich in iron, calcium, zinc, potassium and vitamins A, B complex, C and D. Used medicinally as an appetite stimulant and to support kidney function, leaves are a nutritive medicine, acting as a diuretic without depleting the body of potassium.

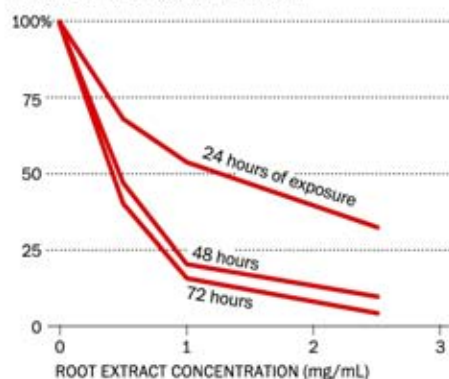
Torn apart and eaten raw in salads, the bittersweet yellow flowers contain antioxidants. They can also be fermented into dandelion wine.

Roots are boiled or sauteed for eating, or roasted to make a coffee substitute. Dandelion root may improve gastrointestinal, liver and gallbladder function, but shouldn't be used with an irritable stomach or bowel.

Dandelion root may even help fight cancer. In a recent study on skin cancer cells grown in the laboratory, scientists from the University of Windsor in Canada demonstrated that an extract from the root causes malignant melanoma cells to die — without damaging healthy cells. Authors of the study suggest that the effect is produced not by a single chemical agent but by the combined effects of numerous compounds found in the root.

**Making melanoma self-destruct**

*In vitro* human melanoma cells suffered apoptosis, or programmed cell death, after exposure to dandelion root extract.

**MALIGNANT MELANOMA CELL VIABILITY**

*Taraxacum officinale*

To learn more, go to [www.washingtonpost.com/urbanjungle](http://www.washingtonpost.com/urbanjungle).

SOURCES: University of Maryland Medical Center; Steve Brill; Maine Organic Farmers and Gardeners Association; "The Efficacy of Dandelion Root Extract in Inducing Apoptosis in Drug-Resistant Human Melanoma Cells," Evidence-Based Complementary and Alternative Medicine

[clarkp@washpost.com](mailto:clarkp@washpost.com)

PATTERSON CLARK/THE WASHINGTON POST

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# April is not too late to start a veggie garden

By Adrian Higgins  
*Washington Post Staff Writer*

• *Originally Published April 14, 2011*

In April, the blossoms and bulbs distract the gardener from what's really going on: a profound seasonal shift from sweater weather to the first of many hot, clammy afternoons. The month's metamorphosis also awakens an urgent need by many to run out and plant a vegetable garden.

This is easier said than done, as this reader's plaintive note suggests: "When is the best time to start from scratch? My husband would like to give it a go this year, but I have no energy and think by the time we get started, it would be too late."

The writer, one infers, knows all about the rigors of garden building: the tenacity of turf against the skimming shovel and the way a tool handle likes to rub raw the web of skin between the thumb and forefinger. She knows about sinking into a hot bath on a Sunday night and hoping to die. She knows about getting up the next morning and pouring Advil on her corn flakes. He is thinking of picking a Brandywine tomato.

Should she scramble now to meet the growing season? Yes. Carving a few square feet of growing bed out of a lawn or, better yet, in an old, cleared ornamental bed, may not constitute the perfect veggie garden, but it's a start. Just pick an area that is reasonably flat, that drains and is in a sunny spot.

Our native clay soil is a beast, but it can be tamed, initially with large quantities of compost, leaf mold, well-rotted manure, mineral soil conditioners

and even sand. Raw sand thrown into clay holes is not much use, but I find it of value thoroughly mixed first with all that organic matter and then incorporated into the soil. A digging fork is the best tool for this. Rototillers fluff up the soil down to about seven inches and then leave you with hardpan beneath.

Would this be a better project for March, or even February? Of course. The ground should be prepped by now and planted. The window on the spring garden is closing. The plodding, diligent gardener will have planted kale and broccoli transplants; sown radishes, beets and lettuce; and put in the peas and the potatoes. But don't despair: The summer garden can be planted until Memorial Day, with transplants of tomatoes, eggplants and peppers, and sowings of cucumbers, beans and squash.

If you are on the fence, I'd say do it, if only because we are due for a kind growing season after a few that have been too hot or too dry or too something else.

But fundamentally, to the folks struck by what I call April syndrome, I would say: Snap out of it. Gardening, even vegetable gardening, is not a sprint; it's

a marathon. It's a long-term, cyclical enterprise. April is a key moment, but it is only one in the year.

This was driven home to me last year when I got a community garden plot in mid-March and had to hustle to ready it for the season ahead. Though small, it needed a lot of work: I had to shore up a hill and put in little terraces. I had to build wooden bed frames and rip out the old, ugly fence and build a new one. I wanted to paint the fence before sheathing it in wire mesh.

I struggled and failed to meet the initial spring planting and then saw the rest of the planting period begin to slip from my grasp. One frenetic morning, I looked up to the neighbor's plot to see the first lone sunflower of the year looking down on me. What was I racing to accomplish, the flower asked, that couldn't wait until the garden was ready? Suddenly, this self-imposed burden lifted, my blood pressure went down, bliss overcame the angst, and I and the sunflower deemed that this little plot would be completed in its own time.

Sometimes, when we try to seize the day, it seizes us. I'd rather embrace the process. ■



**Adrian Higgins**

Follow @adrian\_higgins on Twitter for updates on gardening and other cosmic events.

[www.washingtonpost.com/local/sowing-growing-and-harvesting-in-a-community-garden/2011/03/23/AB0nzMJB\\_video.html](http://www.washingtonpost.com/local/sowing-growing-and-harvesting-in-a-community-garden/2011/03/23/AB0nzMJB_video.html)

**Sowing, growing and harvesting in a community garden**

The *Washington Post's* Adrian Higgins preps his community garden plot for the start of spring. The 5:27 video shows Higgins at work, many tips given.

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# Getting the vegetable garden ready

By Adrian Higgins  
Washington Post Staff Writer

• Originally Published March 24, 2011

Spring has arrived and with it the chance to crank up that wonderful element of the growing season ahead: the veggie garden. Growing vegetables is an easy but methodical pursuit where timing is everything. Early spring is the moment when the whole year is set into motion, the period when the garden is dug, weeded, seeded and prepared for the coming months. The next two or three weekends are important for putting in the cool-season garden that yields such treats in May and June as fresh salad greens, radishes and peas. Procrastinators, take heart. You have until May to ready your plot for the summer garden. In August, we told you how to lay out, build and decorate a vegetable garden. Today we offer a gentle nudge in getting it cranked up for the 2011 growing season. Remember, your garden needs at least six full hours of direct sunlight to be successful. The rest is up to you.

## Cleaning up

For the vegetable gardener, there is something deeply satisfying about clearing away last year's detritus and creating a clean slate for the new season.

Growing beds should be separated from paths, and beds should be no more than four feet wide. This allows you to work



ADRIAN HIGGINS



BY GUIDDAUD CHRISTOPHE — ABACA PRESS VIA NEWSCOM

the soil on either side of a bed without stepping into it. Human feet will quickly squeeze the vital air and moisture out of soil.

Small beds with good soil can be cultivated with a three-prong cultivator. This will loosen the top few inches of soil, which then can be raked smooth. Larger beds that have not been dug for a while probably will be compacted, depleted in organic matter and in need of soil fluffing

and replenishment. Finished, screened compost or well-rotted manure (never fresh) can be added.

I like to add a few cups of wood ash and bone meal and a bag of powdered limestone. Spread the amendments evenly on the surface before you start to dig, so that you can turn them in. I prefer a high-quality, well-balanced garden fork for digging, though a shovel or spade will do the job too.

Work backward in rows to avoid stepping on newly dug soil. As you turn and break the soil, pull last year's dead vegetation and, most important, any weeds. Use a hoe to finely chop soil clods, and rake or hoe the bed smooth.

Apart from bed preparation, weeding is the most important step in the spring cleanup. Annual winter weeds are now maturing and must be pulled before they flower and seed. The most common culprits are henbit, chickweed, annual bluegrass and hairy bittercress. The safest, most organic approach is to pull the weeds by hand or slice them with a sharp hoe. In beds that are being

dug, simply break apart the soil and remove entire weeds by hand, roots and all, and throw them in a five-gallon bucket.

Weed paths before laying a seasonal mulch. I like to use a thick layer of wood chips; others in my community garden prefer straw. Reset any edging

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that has come loose during the winter. Now is also the best time to repair fences, gates and arbors.

A wheelbarrow is handy for both hauling bags of soil and mixing amendments, and for transporting mulch for paths. Make sure the tire is pumped up and the axle greased.

### What to Plant

Every vegetable goes through three basic phases in the gardener's hands: starting, growing and harvesting.

Early spring is all about starting for many vegetables, particularly the cool-season varieties that grow until early summer.

Some of the varieties are started indoors in January and February and then set out in April as transplants. If you missed the boat, you can still buy them as young plants from garden centers, mass merchandisers and even through the mail. Look for healthy young plants that have not been allowed to wilt.

As transplants, consider members of the cabbage family: cabbages, broccoli, kale and kohlrabi. Members of the onion family should be planted now for spring and summer harvest, including bunching onions, onions sold as sets and usually by color, leeks and chives. I am also putting in seed-started transplants of globe artichokes and parsley.

Many seeds can be directly sown in the garden once beds are prepared. Lettuce, in all its forms, should be sown now. Keep some seed for a fall crop, when heading lettuce varieties do better in Washington.

In early spring, sow salad greens,



BY GUIDAUD CHRISTOPHE — ABACA PRESS VIA NEWSCOM

including mesclun mixes, arugula and mustard greens. Peas grow to four feet or so and do best on trellis netting. Sow garden (or English) peas, snow peas and sugar peas for harvest in late May and June. Sow chard, beet, radish and collards.

I like to sow seeds in straight lines so that I can distinguish between seedlings and emerging weeds. I use a spool of string and stake to get the lines straight and correctly spaced, and then form a furrow with my finger or the sharp corner of a hoe. Seedlings have to be thinned to allow proper development. Follow the directions for thinning, and row spacing, on the seed packet.

### How to sow

Warm-season plants such as eggplant, tomatoes, peppers and okra, as well as sweet basil, can still be started indoors from seed in late March, under lights. With proper care, they will be ready for transplanting in the garden in mid-May.

If you're not into indoor seed-starting, you can buy young plants and set them in the garden later in the spring. Two caveats: Your selection will be more limited than seed-grown veggies, and many retailers make these warm-season plants available too early for their own good. They should not be planted out until early May.

Many summer and fall garden vegetables can be sown directly into the soil, but only after things have warmed up and frost is a memory. However, order them now and keep the seed packets in the fridge until you are ready to sow them. Do this for cucumbers, summer and

winter squash, lima and asparagus beans, melons and sweet corn.

Beans, carrots and parsnips can take colder conditions, but I don't like to sow them until May so they germinate quickly and the risk of the seeds rotting in cold, wet soil is diminished. Brussels sprouts are delicious in late fall, when they can be harvested alongside carrots and leeks. Start them indoors in early June and plant them out in late July.

Turnips and Asian greens, as well as heading lettuce, do best as a fall crop in our region.

### A border of herbs

Herbs are an integral part of the well-rounded vegetable garden and provide beauty as well as utility.

My main herb border is about 16 feet long by 12 inches wide. Its narrowness will mean that some of the herbs will

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spill onto the path, but that is part of the charm. Herbs that can be killed in a severe winter, such as sweet bay, rosemary and Spanish lavender, are best planted in spring after they have been hardened off. A season of growth will stand them in better stead for their first winter than herbs planted later in the year.

These and other perennial herbs such as garden sage, oregano and thyme will take two or three years to fill out, so space them correctly and put in annuals such as basil and borage as short-term fillers around them.

Repeating strong forms in a herb border is important in establishing a pleasing visual rhythm. Lavender, rosemary, garden sage or rue perform this role. Rue is the least useful as a herb, but its blue-green foliage is highly attractive, and the plant attracts the caterpillars of the black swallowtail. Chives provide useful vertical wisps, and the lavender blue blooms are charming in mid-spring. Garlic chives, which are related, flower white in late summer.

I have tried the variegated and purple varieties of garden sage, but I have come round to the enduring beauty of the gray-green types.

Sweet basil is our reward for suffering hot, humid summers. You can start basil from seed indoors now, but there is no value in planting basil in the garden in April, even if plant retailers are selling it. It is killed by frost and hates cold nights, and shouldn't be planted until early May.

Lavender looks half dead at this time of year, and the temptation is to cut it back

hard as part of the spring cleanup. Don't do this. If you cut lavender plants to the crown, they will likely die. Wait until new growth emerges in about a month before cutting back stems by one-third to a half. As much as I like the French hybrids, such as Provence and Grosso, they are too big for my narrow borders, and I use the smaller English lavender instead, variety *Hidcote*.



BY GUIDAUD CHRISTOPHE — ABACA PRESS VIA NEWS.COM

or, in the case of vines, added to trellises supporting tomatoes, cucumbers, beans and other vertical plants.

Zinnias are unbeatable for flower production from July through October. I like the Benary's Giant series, especially the white, orange and lime green varieties. They were bred for the vase but also make good garden plants, and are somewhat resistant to late-season powdery mildew. Sow seeds directly in beds in early to mid-May, once the soil has warmed.

Shirley poppies and California poppies are another easy annual. Of the latter, several varieties have been introduced beyond the usual (but charming) orange-flowered version. Sow seeds directly now, and again next fall.

Dahlias fit well with the exuberant nature of the garden, especially in late summer into fall. I think three- to four-foot flowered varieties are best suited to the vegetable garden, especially varieties with single or semi-double flowers. Some of my favorites are Fascination, H.S. Party, Red Riding Hood and the more frilly varieties of the Karma series. Tubers should be ordered now and can be started in pots until they go into the garden in May.

Sunflowers provide gargantuan ornament from midsummer on, and the seeds sustain finches and gardener

alike. If the mammoth varieties are too big and tall, choose smaller versions such as Italian White, Chianti, Sunny Smile and Sonja.

The Mexican sunflower or tithonia is quite different, forming a bushy mound

### Flowers in the vegetable garden

Flowers brighten the vegetable garden, elevate its character and draw hummingbirds and other pollinators.

There are no rules about mingling flowering annuals with edible plants, other than not crowding or shading your veggies. Flowers can be incorporated into growing beds, given separate real estate

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of small orange flowers. The seeds can be sown directly around Mother's Day.

Marigolds are a bit trite, but they are reliable bloomers in the heat of high summer if the gardener removes the fading flowers. You could start from seed now indoors or buy transplants in May. Varieties in the Disco series are good performers and look as elegant as a marigold can get.

Annual vines are particularly charming on trellises, arbors and fences, and bloom right through the growing season. They can be grown alongside beans and vining tomatoes. Cardinal vines offer feathery foliage and delicate red blooms, though

they will seed prodigiously. They are relatives of morning glories and moonvine flowers, both lovely additions to the vertical show.

I have become fond, over the years, of the black-eyed susan vine, which can be sown now indoors for a little jump on the season, or directly in the soil in May. If you want to see out the season with a bang, plant a vine named Spanish flag or firecracker vine. It displays a spray of tubular flowers opening red and fading to white. They are striking but late, sometimes not opening until October.

#### Moving plants outdoors

Even hardy plants will suffer if planted outdoors in the spring before proper

acclimation. Seedlings and young transplants are especially vulnerable to cold winds, sun stress and overnight frosts. To "harden off" plants in their pots, place them in the day in a shady and sheltered location and bring them indoors at night. A cool garage or shed is ideal. Do this for a week and the plants will be ready for planting in the garden. Keep plants inside if daytime temperatures stay below the mid-40s or on windy days. During hardening off, young plants must not be allowed to dry out and wilt, nor should they be left in standing water. If squirrels are a problem, use a screened porch, if you have one. Hobby gardeners use cold frames for hardening off spring plants. ■

## A Vocabulary Lesson for Lawn And Garden Learning

By Joel M. Lerner

• Originally Published October 27, 2007

**Fertilizer:** Any material that supplies nutrients to plants. It can be synthetically derived, naturally derived, slow-release or water-soluble. Major nutrients are nitrogen, phosphorus and potassium.

**Green manure:** Plants grown for the purpose of being plowed under (incorporated into soil) over a short time to enrich the soil. Legumes like peas, clovers, vetches and alfalfa fix nitrogen in their roots that they take from the air as they grow and are an excellent way to add organic material.

**Insects:** Ninety percent of all known arthropods. Many are benign and live in balance with other organisms; others are plant pests; some carry serious plant or human diseases. For example, bees and butterflies pollinate plants, elm bark beetles carry Dutch elm diseases; mosquitoes transmit viruses. Many beneficial insects and other animals eat numerous insect pests, helping to maintain a balance in nature.

**Kitchen garden:** An area on your property to grow fruits and vegetables that will supply exercise and fresh produce. A fence covered with lattice or wire with openings no larger than one inch will discourage most wildlife, as will marigolds, native tansy and lavender.

**Mulch:** A gardening term that has gone through many incarnations. It originally referred to manure, straw or leaves laid over new plant roots to hold moisture. Next, young roots were "mulched" to keep them from heaving from the ground because of continual freezing and thawing. Now it is also used as compost tilled into the soil, supplying organisms necessary to make plants thrive.

**Native:** Indigenous to the region.

**Soil:** A mixture of live organisms and minerals that make up the outer mantle of the earth and is crucially important to our environment. We depend on it for plants to grow.

The above glossary is excerpted from the original list by Joel M. Lerner, author of *Anyone Can Landscape*.



An Integrated Curriculum For The Washington Post Newspaper In Education Program

# Frustration over school gardens takes root

By Michael Birnbaum  
Washington Post Staff Writer

• Originally Published January 2, 2011

Charlotte Schoeneman thought her daughter's Takoma Park school would welcome a parent proposal to start a vegetable garden; the city typically embraces all things green.

But she and other Montgomery County parents were rebuffed, told that one person's tomato is another one's maintenance nightmare. School officials cited allergies, pests and possible summertime neglect as reasons for concern.

The parents, who were inspired in part by first lady Michelle Obama's national campaign to fight childhood obesity, said they're puzzled by the school system's decision. In D.C., which has the highest rate of adolescent obesity in the country, several public schools have gardens, and a recently passed law encourages more. Arlington County boasts about 25.

"Vegetable gardens teach kids that there's more to a meal than just chicken nuggets on a plastic tray," Schoeneman said.

Schoeneman said that she and other members of the Takoma Park Elementary School PTA have worked to improve food at the school, though their victories have been minor at best. The school's principal nixed a proposal to use school property for a garden, Schoeneman said, saying she was worried about attracting pests.

Schoeneman said she enjoys spending

time with her second-grade daughter in their own Takoma Park vegetable garden, which attracts nary a rat.

"If you had a fruit tree, you could see the fruit growing on the tree," Schoeneman said. "If you had a little plot, you could have beans and some chard and some onions. You could watch those things growing on their own."

Montgomery County's handful of school vegetable gardens came about only because some schools went rogue and built them without central office permission. Parents whisper about them and try to shield them from publicity.

A February letter from Superintendent Jerry D. Weast to the school board outlined his concerns.

"Because vegetable gardens are a

Parents say that's not a meaningful option for teachers who want to make growing food part of the school day.

When the gardens are off school grounds, "it's kind of pointless, because it's not acting within the curriculum, and the teachers couldn't embrace it," said Kristen Dill, another Takoma Park Elementary parent. She has a degree in horticulture and grew up in Nebraska. But she's been stymied in the suburban wilds of Montgomery County.

"Elsewhere, there's so much energy right now" around vegetable gardens at schools, Dill said. In Montgomery, by contrast, "it feels like molasses," she said.

School officials said they are working to develop standardized plans for container gardens that schools could use as soon as this spring. The school system also has allowed some property near administrative buildings — not schools — to be used for community vegetable gardens. But many parents and community advocates say that's not enough.

"There are school systems around the country that are embracing this," said Gordon Clark, director of Montgomery Victory Gardens, a group pushing for community gardens.

"Any school that wants to do it should have some support from the school system to do it any way they want."

Parents and teachers around Montgomery County, including at Takoma Park and Piney Branch elementary schools and Montgomery Blair High School, have tried

**"Vegetable gardens teach kids that there's more to a meal than just chicken nuggets on a plastic tray."**

— Charlotte Schoeneman,

Takoma Park elementary parent and PTA member

food source for pests, create liabilities for children with food allergies, and have other associated concerns, the Department of Facilities Management staff has not approved gardens designed to produce food," he wrote.

He suggested instead that the school system work with the Montgomery Department of Parks to build gardens on park property near school sites.

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unsuccessfully to start vegetable gardens.

Montgomery officials said there is no ban against vegetable gardens and cite the schools that have them to prove their point. But they said they have discouraged them until now due to concerns about pests such as rats and groundhogs, who might be attracted to the vegetables, and with student allergies to certain crops. Nevertheless, they're committed to the idea, they said.

"Any school in Montgomery County that wants a vegetable garden, there will be a way for them to have a vegetable garden," said Sean Gallagher, assistant director of the school system's Department of Facilities Management.

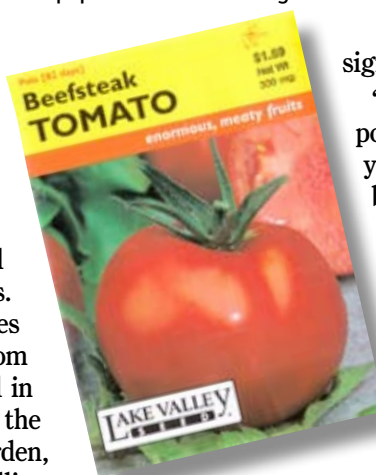
Initially, he said, schools will have an approved template for a portable container garden. Later, "if a school has shown they can do really well with a container garden," they might be able to

move on to more traditional raised beds. "We just want to give them the right guidance to be successful."

Many other local school systems have embraced gardens without such caveats. The first lady made headlines when she invited students from Bancroft Elementary School in the District to help plant the White House vegetable garden, and she made more headlines when she in turn visited Bancroft to help students plant theirs.

The D.C. Healthy Schools Act, passed in May, created a program that gives grants to D.C. schools to help them set up school gardens and encourages them to create compost piles as part of them. At least nine schools have vegetable gardens.

And in Arlington, the school system has encouraged gardens without exerting



significant direct control.

"There's no central policy of 'this is where your garden's going to be, this is what you're going to grow.' It's up to the school," said Frank Bellavia, a spokesman for the school system.

Bellavia said he had not heard of any issues with pests or allergies and

that someone from the community typically maintains the gardens over the summer. Vegetables from the school gardens usually are donated to a food bank, he said.

Meanwhile, Montgomery parents have lowered their expectations.

"I'm not really hoping for much," said Schoeneman. "I just keep plugging away, and maybe something good will happen as the tides turn." ■



JULIA EWAN — THE WASHINGTON POST



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# Arboretum reverses decision to destroy azalea display after public backlash

By Adrian Higgins  
*Washington Post Staff Writer*

• Originally Published February 16, 2011

Officials at the National Arboretum have halted a plan to destroy its most popular floral attraction — a display of 10,000 mature azalea shrubs — as its new director seeks to improve the long-term picture of the financially strapped federal institution.

The decision to rip out the 65-year-old Glenn Dale azalea display in the botanical garden in Northeast Washington spurred a public outcry and a campaign to save the azaleas. It also prompted an anonymous donor to pledge a \$1 million endowment to be used toward preserving the azaleas and the arboretum's world-class boxwood collection, which was also targeted for removal.

"This generous donation, offered in the Arboretum's hour of greatest need, reflects not only the donor's passion for this national treasure, but also confidence that the Arboretum leadership will make sound decisions in relation to the

collections in the future," said Kathy Horan, executive director of the Friends of the National Arboretum, according to a news release.

The arboretum's director, Colien Hefferan, acknowledged "that the intensity and breadth of the concern did surprise everyone here." She said she wants to get horticultural experts together in the spring to devise long-term plans for the arboretum's 15 major plant collections and gardens and to work with the friends group to find more private funding.

The 446-acre arboretum is a public botanical garden and a research facility for the U.S. Agriculture Department's Agricultural Research Service.

In November, Hefferan's predecessor approved a plan to reduce the collections after the unexpected loss of a \$110,000 grant, which helped pay for two gardeners. This spring would have been the last flowering of the azaleas on a hillside called Mount Hamilton. The spectacle helps to draw as many as 100,000 visitors over a peak six-week period in April and May.

The azaleas were targeted because the lineage of many has

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SARAH L. VOISIN — THE WASHINGTON POST

**Next year's proposed budget for the National Arboretum, a federally-funded institution, has been cut by \$2 million.**



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not been identified, diminishing their scientific value. Under the plan, collections of daffodils and perennials would also have been removed.

Jeanne Connelly, chairman of the friends group's board, said the plant collections have won a reprieve but their future still depends on finding maintenance funds. The anonymous donation will generate about \$50,000 a year, she said. The group has started a fundraising campaign to match the donation and replace the lost grant.

The new \$1 million gift is the largest single donation in the group's history. The anonymous donor has made the gift in honor of friends: prominent Washington lawyer Brendan V. Sullivan Jr. and his wife, Lila Sullivan.

The decision to suspend the removal of the displays "was linked to the outcry" rather than the donation, Connelly said. "There was this incredible backlash," she said. Organizers created a Web site, *savetheazaleas.org*, and lobbied members of Congress and the administration to come to the defense of the Glenn Dale azaleas.

"I think what this has shown is that the people in the Washington area really strongly support the National Arboretum," said one of the protesters, Don Hyatt, a retired teacher in McLean. "We are very thankful for the wide support this issue has brought forth."

Successive arboretum directors have struggled with chronic underfunding that has led to deferred maintenance of gardens and infrastructure. Its administration building is closed for a \$9 million restoration funded by federal stimulus money. ■

*Visit this related website for more information on citizens' response and campaign to save the azaleas: Save the Azaleas (<http://savetheazaleas.org/>)*



KATHERINE FREY — THE WASHINGTON POST

**Areas of the U.S. National Arboretum show neglect and decline. Major cracks appear in walls surrounding the Azalea Gardens.**



SANDRA LEAVITT LEARNER FOR THE WASHINGTON POST

**Azaleas in May bloom at the U.S. National Arboretum.**



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# Conservancy formed to rescue Dumbarton Oaks Park

By Adrian Higgins  
*Washington Post Staff Writer*

• Originally Published April 14, 2011

The eminent biologist Edward O. Wilson found his passion for nature as a 10-year-old boy, he recalls, “exploring with a net, searching the ground for different kinds of ants. I was born as a naturalist in Rock Creek Park.”

Wilson, the Harvard professor emeritus and father of the study of ant and other animal societies, returned to Washington this week in a sort of payback to the park. A 27-acre offshoot of it, named Dumbarton Oaks Park, pales in comparative size to the main stem of Rock Creek Park, all 1,700 acres of it. But to landscape historians, it is hallowed ground. It is also on the edge of survival. With Wilson’s help, a group of preservationists have launched a new effort to save the park, which has been mugged by time, stormwater runoff, and rampant vines and other weeds.

The park adjoins the mansion and gardens of Dumbarton Oaks and was designed by the same venerated landscape architect, Beatrix Farrand,

as an integral part of the Georgetown estate, indeed the pastoral counterpoint to the formal gardens above. When the owners — Robert and Mildred Bliss — gave the mansion and garden to Harvard University in 1940, they donated the rustic section to the National Park Service. It was about then that young Ed Wilson was rooting around with a net. It may have also been the last time anyone could see the purity of Farrand’s vision — an idyll of streamside woods and meadows rising from a brook with 18 decorative waterfalls and dams.

After decades of underfunding and inadequate maintenance, the park remains popular for joggers, dog walkers and even commuters on foot, but it is in ecological and aesthetic distress: Fields and woods are consumed by acres of invasive vines, trails have become overgrown, masonry features are crumbling, and the stream is plagued by siltation and erosion from torrential upstream stormwater.

Tara Morrison, the new superintendent of Rock Creek Park, said visitors can “still witness the beauty of the original design.” Others may find that a charitable assessment — five years ago a preservation group, the Cultural Landscape Foundation, said Farrand’s landscape was in danger of being lost.

Wilson arrived at the Washington National Cathedral late Tuesday afternoon to assist in the public launch of the private group formed to save the park, the Dumbarton Oaks Park Conservancy. The event was moved from the park because of heavy rain.

Strolling the cathedral grounds afterward, Wilson said that it sounds as if the park needs to be “reengineered” to fix the flooding problems, before its biological health can be restored. The degradation inevitably damages the biodiversity, he said, as colonies of native species are overtaken by erosion

or overgrowth. “When you get down to a small size, the extinction rate goes up. You can take a species to extinction in that type of place very fast.”

Earlier, he told more than 100 park supporters that Rock Creek was known to have had, uniquely, two species of shrimplike creatures. In 1890, a lone specimen of a new species of ant was discovered in the park. Wilson spoke wistfully of wanting to search “for this lost species.”

The conservancy is headed by Rebecca Trafton, a garden designer and documentary maker, who said the group will host a session in October to map the park’s restoration, maintenance, funding and use before launching a fundraising campaign.

“Dumbarton Oaks is one of the greatest gardens in America, and Dumbarton Oaks Park is an inextricable piece of the whole. It is perilously close to losing its design and ecological integrity, but I think we are right at the point we can bring it back to life,” said Trafton.

Wilson was joined by Elizabeth Barlow Rogers, a garden historian and writer who led the charge to bring New York’s Central Park up from its nadir by establishing the Central Park Conservancy in 1980. You bring a park back, she said, by having a vision “and a visionary,” by having a community that values it, and by forging a partnership with the public entity that owns it. As a young mother in Washington, she would stroll with her baby daughter from Foggy Bottom to Georgetown. “And brought her to where? Dumbarton Oaks Park.”

Local volunteers and environmentalists have been trying to clean up the park for years.

Trafton is determined to bring it back. Like Wilson’s beloved ants, “we are small, but we are tough.”

*higginsa@washpost.com*

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# The future king on the future of food

## *Prince Charles attends Future of Food conference at Georgetown*

By Manuel Roig-Franzia  
Washington Post Staff Writer

•Originally Published May 5, 2011

Prince William's dad — also known as Charles, the future king of England — knows a bit about taking verbal punches.

Promoting sustainable farming and green living has been one of his life's missions. But because he's a royal with easy access to carbon-hogging jets, a handful of estates, flotillas of attendants and all sorts of resource-gobbling goodies, his oft-praised crusade tends to get lampooned with some frequency.

"I have been venturing into extremely dangerous territory by speaking about the future of food," the Prince of Wales told an audience Wednesday at Georgetown University, evoking an image that could just as easily apply to his efforts to promote reducing dependence on fossil fuels. "I have the scars to prove it!"

But, for all the grief he gets, Charles clearly loves the subject, and he held forth for more than 40 minutes, delivering a dry, sobering and substantive message of impending worldwide crisis. And his remarks, once known for being radical, were delivered to a Washington audience on the day when Republicans and Democrats agreed that agri-business subsidies should be cut. Indeed, just five days after his son's international blockbuster of a wedding to Kate Middleton, Charles seemed relieved to return to deriding agriculture's "umbilical dependency on oil" and warning that humans "are pushing nature's life-support system too far."



**KEYNOTE SPEAKER: Prince Charles, on a three-day trip to Washington, waves goodbye after the Future of Food conference at Georgetown University.**

"It certainly makes a change from making embarrassing speeches about my eldest son during wedding receptions," he told the audience at the Future of Food conference, organized by Washington Post Live, a unit of this newspaper that holds conferences and events.

Charles's keynote address was delivered on the second day of a three-day trip to Washington that included a stop Tuesday at Common Good City Farm, an urban farm and educational center in LeDroit Park, as well as a planned sit-down Wednesday afternoon with President Obama and a visit with Supreme Court Justice Stephen G. Breyer, whose wife, Joanna Freda Hare, is the daughter of a British noble, the late John Hare, 1st Viscount Blakenham. As Charles arrived at Georgetown's Healy Hall, a British reporter called out a question about what the prince would discuss with the

president. "Ah!" Charles said cryptically, smiling and pointing a finger in the air before moving on.

Charles was greeted by dozens of students who braved cool weather and rain to catch a glimpse of him as he rolled up to the ancient hall in a seven-car motorcade. Charles chatted briefly with some of them before entering the hall, complimenting Dominick Fiorentino, a 19-year-old business major from New York, on the British flags he was waving. "I think he's using his position to spread a message about sustainable food," Kevin Rafferty, a 19-year-old business major from Newtown Square, Pa., said after exchanging a few words with the prince. "I respect that."

In parts of the blogosphere, Charles's reception has been much frostier. Phelim

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McAleer, an Irish journalist and filmmaker, was getting prominent play on right-leaning blogs and YouTube with his 2-minute-14-second film “Prince Charles – Hypocrite.” It starts with a clip of Charles saying, “We are making it cool to use less stuff.” That’s followed by a rollout of images — accompanied by a Bach minuet — of vast estates. (There’s no Airbus this time. Charles flew to Washington in a private jet owned by Texas billionaire Joe Allbritton.) “Sustainability is an awful concept,” McAleer said in an interview from his Los Angeles home. “It’s rich, white people telling mostly brown and black people that they need to stay poor.”

One of the main themes of the Georgetown conference was finding ways to feed the poor that uses sustainable agriculture. The prince sought to promote methods that would not deplete soils, overtax water supplies or rely on the nitrogen fertilizers so often blamed for environmental degradation.

“For every pound of beef produced in the industrial system, it takes 2,000 gallons of water,” he told a near-capacity audience inside the ornate Gaston Hall auditorium, which is on an upper floor of Healy Hall. “That is a lot of water, and there is plenty of evidence that the Earth cannot keep up with the demand.”

Charles cited his efforts to farm “as sustainably as possible” in England. He said there is “plenty of current evidence that adopting an approach which mirrors the miraculous ingenuity of nature can produce surprisingly high yields of a wide range of vegetables, arable crops, beef, lamb and milk.”



**SEEKING SUSTAINABILITY: Prince Charles visited Common Good City Farm in the District's LeDroit Park.**

“And yet we are told ceaselessly — ceaselessly! — that sustainable or organic agriculture cannot feed the world.” The prince argued that we need a “more honest form of accounting” that takes into account the health problems associated with fertilizers and other products used to boost production.

He called for a new kind of “Washington consensus” about sustainable food production, invoking a term used for the controversial neo-liberal, market-friendly policies frequently associated with international aid and lending organizations. Charles’s Washington consensus would seek to balance the needs for markets and a private sector but “recognize the real opportunities and trade-offs needed to build a food system that enhances and ensures the maintenance of social, economic and environmental capital.”

He ended his remarks by laying a heavy measure of responsibility for the future of food on the United States.

He quoted George Washington, saying, “Raise a standard to which the wise and honest can repair; the rest is in the hands of God.” Then, he added a coda: “And, indeed, as so often in the past, in the hands of your great country, the United States of America.”

Back home, Charles is famous for operating his Aston Martin on a clean-running biofuel made from surplus wine. Citing “security-related” issues, a British Embassy spokesman declined to say whether any of the vehicles in Charles’s motorcade — which included a Chevrolet Suburban, a Mercedes-Benz sport-utility vehicle, a Jaguar, a Chrysler 300 and a Cadillac — run on electricity or are hybrids. Some of the vehicles are operated by the U.S. State Department, the spokesman said.

As Charles visited with dignitaries inside Healy Hall, the motorcade and its drivers waited at the front door. An SUV with diplomatic plates was making a bit of noise. Its motor was running. ■

An Integrated Curriculum For The Washington Post Newspaper In Education Program

Academic Content Standards

*This lesson addresses academic content standards of Maryland, Virginia and the District of Columbia.*

**Maryland**

**Science, Environmental Science:**  
The student will demonstrate that data analysis is a vital aspect of the process of scientific inquiry and communication.  
The student will describe trends revealed by data (Indicator 1.4.6)

**Health:** Apply the components of personal well-being to develop lifelong wellness skills and strategies (Grade 8, Components of Personal Well-Being)

**Visual Arts, Perceiving and Responding:**  
Students will demonstrate the ability to perceive, interpret, and respond to ideas, experiences, and the environment through visual art (Grade 8, Standard 1.0)

**Reading, General Reading Processes:**  
Students will use a variety of strategies and opportunities to understand word meaning and to increase vocabulary.  
a. Acquire new vocabulary through listening to, independently reading, and discussing a variety of literary and informational texts (Standard 1, Topic D, Grade 5)

The Maryland Voluntary State Curriculum Content Standards can be found online at <http://mdk12.org/assessments/standards/9-12.html>

**Virginia**

**Biology:** The student will plan and conduct investigations in which  
a) observations of living organisms are recorded in the lab and in the field;  
b) hypotheses are formulated based on direct observations and information from scientific literature;  
e) conclusions are formed based on recorded quantitative and qualitative data; (BIO.1)

**Life Science:** The student will investigate and understand that the basic needs of organisms must be met in order to carry out life processes. Key concepts include  
a) plant needs (light, water, gases, and nutrients)

**Visual Arts:** The student will use the principles of design, including proportion, rhythm, balance, emphasis, variety, contrast, and unity, to express ideas and create images. (5.5)

**Health:** The student will explain how peers, families, and community groups work together to build a healthy community. Key concepts include  
a) collaborative support for environmental issues;  
c) promotion of the value of community health and wellness; (Grade 5, 5.5)

Standards of Learning currently in effect for Virginia Public Schools can be found online at [www.doe.virginia.gov/testing/sol/standards\\_docs/index.shtml](http://www.doe.virginia.gov/testing/sol/standards_docs/index.shtml)

**Washington, D.C.**

**Biology, Ecosystems:** Students should understand Ecosystems as dynamic systems. Specifically students should be able to:  
Describe how the physical or chemical environment may influence the rate, extent, and nature of the way organisms develop within ecosystems. (Strand 4, B.17.4)

**Health:** Describe the positive and negative influence of the media on thoughts, feelings, perceptions and health behaviors. (Media & Technology Influences, 2.4.3)

**Health:** Describe the ways technology can affect personal health and health behaviors for better and for worse, such as through new, effective medicines; improved exercise; and the availability and nutrient quality of food. (Media & Technological Influences, 8.4.4)

**Visual Arts:** Apply artistic processes and skills in a variety of media to communicate meaning and intent in original works of art:  
Use various observational drawing skills to depict a variety of subject matter, to include sculpture, outdoors or in museums. (Skills, Process, Materials and Tools, 8.2.3)

Learning Standards for DCPS are found online at <http://dcps.dc.gov/DCPS/In+the+Classroom/What+Students+Are+Learning>