Urban Gardening

DUMIES

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Paul Simon
Charlie Nardozzi
The Editors of the National
Gardening Association



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by Paul Simon, Charlie Nardozzi, and The Editors of the National Gardening Association



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About the Authors

Paul Simon is a nationally recognized landscape architect, public artist, horticulturist, master gardener, and urban designer. With over 20 years of experience, Paul brings a wealth of knowledge, skills, and abilities from various fields in the gardening, horticulture, and design industries.

Paul holds a B.S. in Landscape Architecture from the University of Kentucky with a diverse curriculum in site design, urban design, community planning, geography, architecture, plant and soil sciences, forestry, and civil engineering. He is also an esteemed member of the American Society of Landscape Architects.

Paul is personally committed and driven toward solving developable solutions while maintaining professional integrity and respect for the environment.

Many of his projects specialize in urban design, parks and community gardens, public art, outdoor learning, and green design initiatives — some of which have been nationally published, recognized, and awarded. Paul is also driven to create human environments that are sustainable, socially relevant, economically feasible, and user functional.

In addition, Paul is involved as a horticultural editor for www.kids gardening.org. Kids Gardening is a leading national provider of K-12, plant-based educational materials, providing programs and initiatives for plant-based education in schools, communities, and backyards across the country. Paul continues to provide unique articles underscoring the importance of kids gardening and outdoor learning.

Charlie Nardozzi is a nationally recognized garden writer, speaker, and radio and television personality. He has worked for more than 20 years bringing expert gardening information to home gardeners through radio, television, talks, online, and the printed page. Charlie delights in making gardening information simple, easy, fun, and accessible to everyone. His energy, exuberance, and love of the natural world also make him an exciting public speaker and presenter. He has spoken at national venues such as the Philadelphia Flower Show, Master Gardener conferences, and trade shows.

Charlie is a garden coach and consultant teaching and inspiring home gardeners to grow the best vegetables, fruits, flowers, trees, and shrubs in their yards.

Charlie co-hosts *In The Garden*, tips on the local CBS affiliate television station (WCAX-Channel 3), a weekly, call-in radio show on WJOY-1230AM, and the *Vermont Garden Journal* on Vermont Public Radio.

Charlie is also known for his writing. He has written for national magazines such as *Organic Gardening* and contributed to many of the *For Dummies* gardening titles, authoring *Vegetable Gardening For Dummies* in 2009. He also authored the *Ultimate Gardener* (HCI Press, 2009) which highlights heart-warming stories about the trials and tribulations of gardening and *Northeast Fruit and Vegetable Gardening* in (Cool Springs Press, April, 2012). He also contributed to other book project such as *Vegetables from an Italian Garden* (Phaidon Press, 2011).

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He was the senior horticulturist and spokesperson for the National Gardening Association (NGA), where he wrote and edited articles for their magazine and online newsletters, conducted media interviews about gardening, and provided horticultural consultation to NGA programs.

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From Paul: I'd like to take this opportunity to express my gratitude to the many people who have been instrumental over the years in developing my background as an urban designer, horticulturist, landscape architect, and public artist.

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Dedications

From Paul: I would like to dedicate this book to all of you who are digging into the earth, greening our cities, and sharing your knowledge to support a sustainable future for all.

From Charlie: I dedicate this book to all those budding gardeners in urban areas who are transforming concrete jungles into thriving, vibrant, green communities, growing food for themselves and their neighbors, reversing crime and pollution, and generally creating a wholesome place to live.

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Introduction

rban gardening trends are undoubtedly on the rise, and the excitement to green our cities and develop edible landscapes is being shared across the world. City planning officials and municipalities are recognizing this healthy trend and taking appropriate measures to redraft regulations in support of many urban agricultural initiatives. Individuals and local organizations are forming grassroots alliances to make urban areas more livable and self-sustaining. Of course the urban environment certainly presents its own set of challenges, but with the right tools, know-how, and a little help, a dedicated urban gardener can succeed — and we hope this book can provide you some guidance along the way.

The ways to garden the city are as varied as our cities are. Your ambition may be to transform a vacant lot, an underutilized parking area, or your back deck or patio into a green oasis. Perhaps you wish to become involved in a community garden association, or build your own urban farm? Whatever level of gardening you choose, you are on the right path supporting the health of our environment and a renewal of our cities.

About This Book

This book provides a complete A–Z guide for the urban gardener. Topics include preparing urban soil conditions, how to plant, where you can plant, and the many types of plantings suitable for urban gardens. And, of course, urban edibles are especially covered.

You also discover some techniques for reducing air and water pollution and how gardens may reduce crime, increase property values, and contribute to healthier, improved neighborhoods.

From rooftops, balconies, patios, along walls and stairways, or growing indoors, we cover many urban gardening techniques and trends to help get you started right away!

Conventions Used in This Book

To help you navigate through this book, we included some conventions to follow:

- All references to temperature are in degrees Fahrenheit (F) and measurements in feet and inches.
- When we refer to plant hardiness, we are using the U.S. Department of Agriculture Plant Hardiness Zone Map, which you can find at http:// planthardiness.ars.usda.gov/PHZMWeb.
- When we refer to the Extension Service, we're talking about the government- or university-sponsored service that offers helpful information on gardening. The Master Gardeners we refer to are volunteers trained by horticultural professionals in each state to also offer gardening advice. The Extension Service can be found through your local land-grant university, such as the University of Connecticut. The Master Gardeners for the United States and Canada can be found for each state on this website: www.extension.org/pages/9925/state-and-provincial-master-gardener-programs:-extension-and-affiliated-program-listings.
- Most plant types are listed first by common name and then by botanical name initials.

Following are a few other conventions to keep in mind:

- ✓ Whenever a new term is introduced in a chapter, it appears in *italic*, followed by a brief definition or cross-reference.
- Key words or phrases appear in **bold**.
- ✓ Numbered steps also appear in **bold**.

What You're Not to Read

Although we'd love it if you read every word we've written and kept *Urban Gardening For Dummies* by your bedside table for midnight inspirations, we realize urban gardeners (like everyone else) are busy people. So, if you want the meat and potatoes of the book, you can skip over the sidebars and any text marked with the Technical Stuff icon. Sidebars appear in gray boxes and feature interesting but nonessential information that's related to the main

text. The Technical Stuff icon features information that is beyond need-to-know but that further enhances your understanding of a given topic.

Foolish Assumptions

Every book starts with a few assumptions about who will be reading it. While most don't state their assumptions, we're going to be right up front with ours:

- You live in a small to large city and are interested in growing plants safely.
- You know someone in a small to large city who you think is interested in growing plants safely.
- You know someone in a small to large city who you think should be interested in growing plants safely.
- You don't have much gardening experience.
- You want to improve your physical surroundings, adding greenery, healthy food plants, and wildlife habitat to your yard all while growing the plants organically.
- You're even willing to sacrifice precious deck and balcony space for a few pots filled with delicious herbs and greens.
- You want to share and impress your friends and family with the amount of garden beauty and food you can grow in the city on the ground, roof, wall, or public space.

How This Book Is Organized

Like most Dummies books, *Urban Gardening For Dummies* is broken into parts. Each part has chapters related to that theme. Here's an overview to get you started.

Part 1: Urban Gardening 101

In Part I, we give you an overview of urban gardening, including preparing your soil, planting, and where you can place the many types of plantings suitable for urban gardens, especially edibles! Chapter 1 covers city

gardening and how you can best develop your urban green thumb. In Chapter 2, we show you how urban landscapes help reduce air and water pollution and how gardens may reduce crime, increase property values, and contribute to healthier, improved neighborhoods. In Chapter 3, we describe the urban microclimate, including the urban *Heat Island Effect*, local weather patterns, and how you can actually influence weather conditions at micro-level to benefit the health of your urban garden.

Part 11: Gardening Basics

In Part II, the digging really begins — in the soil, that is. Chapter 4 discusses analyzing soil types, understanding soil pH, drainage, and poor and contaminated soil conditions. In Chapter 5, we give you the scoop on how you can build good soil for your garden with manure, organic fertilizers, and compost. In Chapter 6, you'll discover when to seed, when to transplant, and how to select the right plants for your garden. We even show you some tricks of the trade for planting annuals, veggies, perennials, roses, trees, and shrubs.

Part 111: Places and Ways to Garden

So where can you garden in the city? Head over to Part III for answers to this question from the ground up. Chapter 7 shows you ways to create a beautiful and artful outdoor room with arbors, recycled materials, and water features. In Chapter 8, we get funky with container gardening and show you creative ways to plant pots of every possible shape and size. Apartment dwellers need not feel left out — Chapters 9, 10, and 11 take on building rooftop and balcony gardens and demonstrate some vertical growing strategies. Chapter 12 helps you find ways to green up city buildings and transform vacant lots into unique urban green spaces.

Part IV: Growing Plants in the City

Whether you're gardening in a container on an apartment balcony or in a community garden, or even in your own backyard, you need to know the basics of growing all your favorite plants. Part IV gives you the *how-to* information on growing edibles, flowers, trees, shrubs, and lawns. In Chapter 13, we get into the nitty-gritty of how to plant your own vegetable garden. Flowers are up next in Chapters 14 and 15, where we discuss annual and

perennial flower gardens. In Chapter 16, you see how to select and plant the right tree or shrub for your yard. Chapter 17 covers (ahem) how to keep your urban lawn and ground covers growing strong.

Part V: Growing to Perfection

All your gardens are planted and your flowers and veggies are starting to bloom; it's time to find out how to care for your new green babies. Chapter 18 describes how to weed your gardens and the advantages of using various mulches to keep weeds at bay and retain soil moisture. Water is a critical element to any garden, so in Chapter 19 we show you the best ways to water your plants, as well as save money and time. Even the best garden can have trouble with insects, diseases, and animals. Chapter 20 identifies some of the worst offenders and gives you organic solutions for stopping them in their tracks.

Part VI: The Part of Tens

No *For Dummies* book is complete without a "Part of Tens," and this one includes some great gardening tips. From the top ten essential garden tools to ten kid-friendly ways to garden in the city, Part VI offers an assortment of helpful and creative urban gardening solutions. We even include a chapter on ten ways to develop a *sustainable* urban garden, including how to involve your community and collaborate with others.

Icons Used in This Book

Like all *For Dummies* books, this one has icons that highlight tips, warnings, technical stuff, and things to remember. Here are the ones we use in this book.



This icon highlights important information that makes you a better gardener. It's stuff you don't want to forget.



This stuff is for the gardener that wants to understand more and go a little deeper. It's not essential, but it's certainly cool information.



This icon highlights tips that help you save time, money, and resources. Everyone can use those kinds of tips!



This icon keeps you alert to possible problems that may arise, even in the garden. We try to help you avoid mistakes by pointing out possible gardening pitfalls.

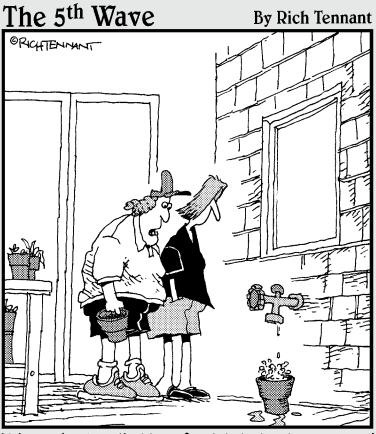
Where to Go from Here

You are one of a growing herd of people gardening in the city. Feel proud. Not only are you creating beauty and food for yourself and your family, you're helping make cities more livable places and reducing your urban area's dependence on outside resources for energy and food.

Use this book as a starting place to inspire and inform you on how to get started greening your city. Skip to the chapters that interest you most to get the information you need to grow plants and create gardens. But don't stop here. Check with local resources, organizations, and other gardeners you meet to share information and ideas so that you can grow a green and prosperous city for all to enjoy.

And if you're looking for more detailed information about growing specific plants or specific growing methods, check out some of the other For Dummies gardening books, such as Organic Gardening For Dummies, 2nd Edition, by Ann Whitman, Suzanne DeJohn, and the National Gardening Association; Herb Gardening For Dummies, 2nd Edition, by Karan Davis Cutler, Kathleen Fisher, Suzanne DeJohn, and the National Gardening Association; Container Gardening For Dummies, 2nd Edition, by Bill Marken, Suzanne DeJohn, and the Editors of the National Gardening Association; Vegetable Gardening For Dummies, 2nd Edition, by Charlie Nardozzi; Lawn Care For Dummies, by Lance Walheim and the National Gardening Association; and Roses For Dummies, 2nd Edition, by Lance Walheim and the Editors of the National Gardening Association.

Part I Urban Gardening 101



"It's my husband's idea of a drip irrigation system."

In this part...

In this part, we provide an overview of urban gardening, from preparing healthy soil conditions to how to plant, from where you can plant to the many types of plantings suitable for urban gardens, especially edibles! We also discuss how urban landscapes help reduce air and water pollution and how gardens may reduce crime, increase property values, and contribute to healthier, improved neighborhoods. Finally, we describe the urban microclimate, including the urban *Heat Island Effect*, local weather patterns, and how you can actually influence weather conditions at a micro-level to benefit the health of your urban garden.

Chapter 1

Gardening in the City

In This Chapter

- ▶ Understanding this urban gardening movement
- ► Getting the basics on building healthy soil
- ▶ Seeing the many creative ways to garden in a city
- Discovering what plants you can grow in urban environments
- ▶ Growing your plants well in the city

s more and more people move to cities from rural areas, they bring their love and knowledge of gardens with them. We're seeing a renaissance of urban gardening in cities around the world. City dwellers are realizing that they can't just rely on rural farms and transportation to supply them with food, fuel, and the energy they need. Cities need to be inhabitable, and having clean air and water are top priorities for maintaining the quality of life in cities. Not only does a cleaner environment and fresher food make for a more livable city, it makes for healthier residents with fewer medical issues.

In this chapter, we give you an overview of all the ways you can garden in the city. We cover the basics of growing healthy soil, the many places to have a city garden, the types of plants that grow well in urban environments, and ways to keep them healthy.

Knowing the Basics of Soil Prep

Most people think of soil as nothing more than the dirt that's beneath their feet. They couldn't be more wrong. Soil is a living entity, and healthy soil is more than just the dirt you see in vacant lots or around construction sites. Plants need healthy soil to grow, and in the city, that becomes even more imperative. Cities stress plants with their heat, cold, wind, air and water pollution, vandalism, and soils lacking in nutrients. Healthy soils to the rescue! A healthy soil can keep your plants vibrant, and just like the human body, when plants are healthy they can better withstand all types of environmental stresses.

Here are some of the ways to nurture and build a healthy soil in the city. More details on soils are available in Chapter 4.

- ✓ The living soil. Soil is loaded with living organisms. These microbes help make nutrients, water, and minerals available to plants. Unhealthy soil is devoid of organic matter (the food of microbes), microbes, and any life-giving capacities. Your job as a gardener is to build up your soil so your plants will thrive. This can mean amending your existing soil with compost and other forms of organic matter or replacing your existing soil with something better.
- ✓ Start with organic matter: We wax poetic about the value and role organic matter plays in a healthy soil in Chapter 5. Street merchants don't peddle organic matter, but someday it may be considered that valuable. Right now though, many kinds of organic matter are available for free. Organic matter comes in many forms; hay, straw, untreated grass clippings, leaves, compost, manure, and pine needles. Knowing how to use it to feed your soil is important for a healthy garden.
- ✓ A soil checkup: Our bodies need a checkup every so often to make sure they are healthy, so why shouldn't your soil? It's important to figuratively take your soil's temperature by doing a soil test and other tests. Check the pH (measure of acidity and alkalinity). Check the water drainage to be sure your plants don't sit in wet soils too long. Wet soils can harm many types of plants. Analyze your soil for potential contaminants that may be in your patch of urban heaven. Knowing what you've got for soil helps you know what to do to improve it.
- ✓ Feed your soil. We all know that the foods we put in our bodies affect how we feel. Well, plants aren't any different. What you feed your trees, shrubs, and garden plants influences their health and growth rate. Knowing your plants and your soil helps you determine what fertilizers and amendments to add to make for healthier plants.

Finding the Many Places to Garden the City

Most people think of gardens as beautiful places in pastoral settings. Even in botanical gardens that grace most cities around the globe, the greenery and gardens there create a sanctuary that is fenced in and often hidden from view.

But cities have many places to garden beyond the botanical garden. Many city residents have a yard where they can tuck in gardens. In some communities, rules may be in place restricting where on your property you can garden and what you can plant. But city residents in many areas are challenging the notion they can't grow food gardens in their own front yard. Pulling up the

traditional lawn and planting tomatoes, zinnias, and apples is just one way urbanities are gardening in the city. Here are some other obvious and not so obvious ways they also are growing greenery amidst the concrete and steel. We talk more about the many places and ways to garden in Part III.

- ✓ Vacant lots. Many cities are taking vacant lots and transforming them into small parks, green oases, and community gardens. These "community" gardens often take on the flavor of the residents and become meeting places for the neighborhood. Often the garden is a harbinger of change in the neighborhood. Once a garden springs up in a vacant lot, trash and litter may be picked up, graffiti replaced with murals, and decorative art work installed in the neighborhood. All this creates an identity reflecting the various cultural and ethnic backgrounds of the residents in the neighborhood.
- ✓ **Grow it in a pot.** Container gardening has revolutionized the ways people can grow plants in small spaces. Container growing helps avoid many soil issues because you are using soil specifically adapted to pot growing. Plus, if you don't have the space or proper conditions in the ground where you live, it's pots to the rescue. Containers not only fit in unusual places, like fire escapes, but they are mobile and can be moved with the sun and season.
- ✓ **Growing on the roof.** Rooftop gardens can produce food for a hungry city, reduce the urban Heat Island Effect (we talk about that in Chapter 3), and reduce storm water runoff. If the roof won't work, try the walls. Green wall gardens are springing up in many cities that not only have many of the same benefits as green roofs, but also visually soften the look and feel of a city block. We talk about green walls in Chapter 10. Trellises, pergolas, fences, and arbors are all ways to make use of the vertical space gardeners may have in their otherwise space-limited yard. Growing vines upward is a way to maximize what you have growing in the city.
- ✓ **Inside gardening.** You're probably getting the idea we believe you can garden anywhere outdoors in the city, but some folks have only a balcony or patio or live many stories up. The solution for these land-deprived residents is apartment gardens. Using grow lights and maximizing the light through windows, you can grow houseplants that clean your air and edible plants to provide food. Windowsill herb gardens and salad gardens under lights are just some of the ways apartment dwellers can jump on the green bandwagon. We'll talk more about apartment gardening in Chapter 11.

Growing All Kinds of Plants in The City

Now that you're convinced you really have more gardening opportunities than you thought in the city, naturally the next question is, "What should I

grow?" Well, the simple answer is grow what you like. But that answer isn't enough for most city dwellers. There are soil, space, pollution, and other issues facing urban gardens. So it's important to grow the right plants for your area and, ideally, ones adapted to city culture. Take a look at some of the options.

Trees and shrubs

Trees and shrubs do more than dress up a yard. They provide shade, wildlife habitat, beauty, and potentially, food. It all starts with the right tree or shrub for your space. There may be utility lines above and below ground that workers need to access. The last thing you want is to buy and plant a tree and have it grow well for years, only to have the utility company come and cut it down when it begins to interfere with their lines. Planting a tree or shrub whose mature size is to big for the space available leads to drastic, harmful, and unattractive pruning.

You'll also need to find the right tree or shrub for the existing sun/shade conditions, climate, soil conditions, water availability, and wind conditions. It may sound daunting, but in Chapter 16, we highlight those trees and shrubs that can handle city life and keep performing for you.

If you're like many city dwellers, food gardening is becoming more of a priority, and growing berries and fruit trees fits perfectly with that vision. Dwarf varieties of fruit trees are well suited to small spaces, and self-pollinating fruit trees and berries allow you to enjoy a harvest from just one plant. Even a small city yard usually allows space for a delicious harvest of homegrown fruit!

Edibles

Speaking of edible gardening, vegetables and herbs also fit beautifully in city yards and containers. Whether in a community garden, front or back yard, or a large container, you can grow a whole host of vegetables in most cities. While the ultimate size of the plants isn't as big an issue with vegetables as it is with trees and shrubs (melons, winter squash ,and corn being the exceptions), it's still important to grow varieties adapted to your climate and space. Dwarf varieties of tomatoes and cucumbers, for example, make growing these popular veggies easier in containers.

The city has many potential problems the budding veggie gardener must deal with, but one thing is does help you with is the length of the growing season. Because cities tend to absorb heat during the day and radiate it out at night, the overall environment stays warmer than the surrounding countryside.