Introduction

The first book I ever published on the subject of growing plants in containers was one of the first books I ever published *period*. It was called *Growing Trees Indoors*, and it was a runaway hit, coming within a few hundred thousand copies of making the *New York Times* Bestsellers' List.

The book earned me, back in 1979, nearly universal praise (someone from Wisconsin's *Mt. Horeb Mail* said it was a damned fine book, with pictures and everything) and garnered me a fortune in royalties, totaling nearly $800, if memory serves me correctly. It also taught me a valuable lesson about the concept of growing plants in containers: People weren't ready for it.

Today, more than 30 years later, all that has changed. For one thing, I'm just about exactly 30 years older. For another, I'm a whole lot smarter. And, finally, people *are* ready for it.

Why the change in attitude? Why is today the right time for a book on growing plants in containers — and not only plants, but *edible* plants, fruits of the womb, sustainable-growth harvestable manna — as opposed to a book on container gardening more than three decades ago?

Filling a Void

Well, for starters, more people than ever before are living in urban environments. Apartments, condominiums, spider holes stacked neatly one on top of another — just about any habitable space is being inhabited. That means that more people than ever before are no longer able to enjoy the benefits of traditional gardening. It's difficult to walk out the back door, grab a shovel and begin rooting around in the yard when

the "yard" consists of three cubic feet of poured concrete separating the high rise apartment building next door from the one in which you live.

The fact that most people don't have access to large yards or corner lots or sprawling acres in the countryside anymore doesn't negate their innate desire to garden, of course. It only makes their desire to garden that much stronger. The gardening urge is genetically implanted in our souls. Gardening is as old an activity as modern mankind. Before ancient hunters came gardeners. Before ancient real-estate brokers came gardeners. Before even Rupert Murdoch came gardeners. In fact, the only human activity to precede gardening was gathering. Gatherers wandered from area to area, scrounging up enough fruits and berries, seeds and nuts to sustain them throughout their lifetime, which must have averaged fifteen or twenty years. And many of them were gatherers only because they hadn't yet discovered Burpee's online catalog!

Today, people feel a need to get back to their prehistoric origins, to return to their genetically programmed basics — something that is difficult to do when you live in New York or Chicago or Los Angeles, damned near impossible to do when you live in a three-story brownstone or a high-rise megalith spiraling hundreds of feet above Lake Michigan.

A Healthier Alternative

People also feel a need to garden because they're more health-conscious than their ancestors were. They're better informed about the world around us. With all of the periodic stories about tainted fruits and vegetables — including salmonella, which, contrary to popular belief, does not come exclusively from salmon — who wouldn't worry? With all the tales about produce laced with toxins and heavy metals, about irradiated and otherwise diminished foodstuffs of questionable nutritional value and similar concerns, it's suddenly not only socially expedient but also physiologically critical to find a source of clean, fresh, vitamin-rich produce. At least it is for anyone who doesn't consider Fruit Loops and Bloomin' Onions to be among the US Department of Health's top two food groups.

Yet today when you visit the produce section of your local supermarket, you find apples that were picked in Madagascar three weeks ago; tomatoes that were plucked green, gassed and trucked up from Mexico four weeks ago; bananas that were picked unripened from a plantation

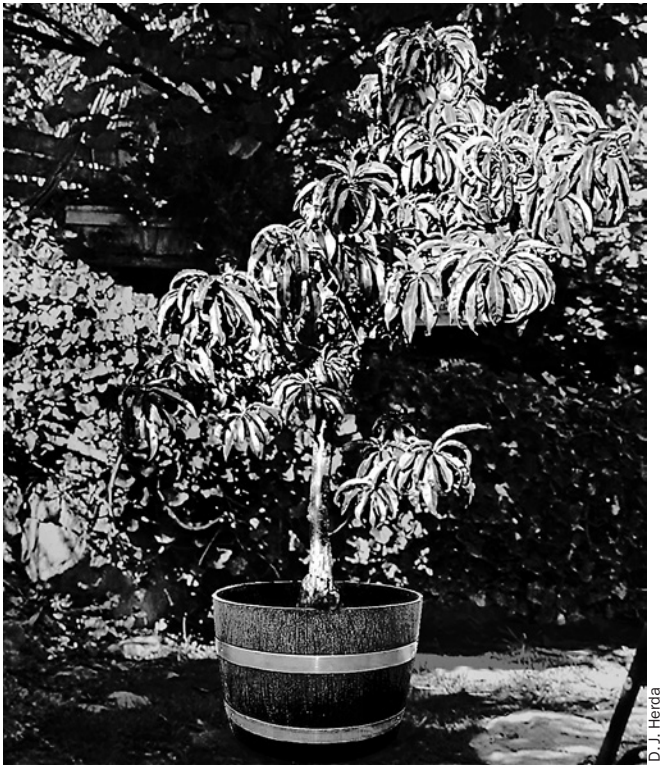
in Costa Rica five weeks ago; and bell peppers whose origins and date of harvest are still a mystery.

Stand back and watch as little kids fondle the produce — right after holding their pet frogs and iguanas. You see adults coughing and sneezing into their hands before hefting a dozen tomatoes and returning them to the stand as not quite suitable. You observe employees hoisting cardboard boxes from stacks of other cardboard boxes sitting on the floor and emptying their contents into bins marked "Special — $2.79 a Pound."

Fresh, healthful fruit and produce? You tell me.

Cutting Costs

People are also turning increasingly to gardening because they worry about the high cost of shopping. I remember a time not long ago when meat was the most expensive thing you could buy at your local



D.J. Herda

This dwarf nectarine tree adapts nicely to container growth and bears full-sized fruit every summer

supermarket and vegetarians were considered frugal, if not outright weird. Today, fresh fruits and vegetables rival, and in many cases surpass, the cost of meat — thanks in great part to spiraling harvest and delivery costs — and vegetarians present a glowing portrait of people who know something the rest of us don't. Of course, they're still considered weird, but that's another story.

With the rising cost of produce such as we are experiencing, how can we cope? Who wants to take out a second mortgage on the condo merely to buy fresh fruits and vegetables? Who wants to give up financial liquidity for a few more years of physical and emotional well-being? Or could there be another way?

The Time Is Now

Finally, I felt the time was right for a book on growing plants in containers because I need the money. Had that original tome about growing trees indoors that I wrote lo! those many years ago sold better, I probably wouldn't have had to write another book on container gardening *ever*.

But that was not the case. I abhor refined sugars and starches; I hate paying through the nose for things that I could be supplying for myself and my family for next to no cost; and I want to put all of the knowledge I have gained about container gardening to good use. What choice did I have but to tackle the ultimate book on fruit and vegetable gardening?

There are other reasons for the timeliness of this book, of course. For one, technology has advanced to the point where, today, no-yard gardening is easier than ever. Modern inventions (mere pipedreams back during the early days of garden writing) and new discoveries about effective horticultural techniques make growing fruit and vegetables in pots more practical than ever before. For another, new varieties of plants — both fruits and vegetables — called cultivars (short for "cultivated varieties") make container gardening much easier and more successful than in the good old days B.C. (Before Containers).

Thus was born the concept for this book.

But those are not the only reasons for growing fruit and vegetables in pots — not by a long shot. There are others, and I'll be presenting them to you within the next few pages of this guide. I'll tell you some of the things you can do and grow with a minimum of knowledge, a minimum of space and a maximum of enjoyment. I'm even going to tell you how

container gardening can not only change your life, but also very possibly *save* it.

Here you're going to learn which fruits and vegetables grow best in pots, which varieties outperform their less robust cousins, how to plant and nurture your crops from planting to harvest, how to build your own best recipe for gardening success and how get the message out to others; the time is right for container gardening.

And you're going to read about it all right here.

Tomatoes (*solanum lycopersicum*)

Habit: Trellis, cherry and plum

Cultivars: The following tomato cultivars are recommended for container gardening. Most are indeterminate (trellis or vining) except for Celebrity and Small Fry.

- *Improved:* Better Boy, Better Bush Improved, Big Beef, Celebrity, Early Girl, Park's Whopper, Terrific
- *Cherry type:* Juliet, Small Fry, Super Sweet 100, Sweet Million
- *Plum type:* Viva Italia
- *Trellis type:* Tropic

Always choose varieties with disease resistance. Fusarium wilt is a common disease that can destroy a whole tomato crop. Many varieties are resistant to this disease. This is indicated by the letters VF after the cultivar name. VFN means the plants are resistant to Verticillium, Fusarium and nematodes; VFNT adds tobacco mosaic virus to the list.

Seed or Transplants: Both

Pot Size: Medium to large

Water: Water regularly, allowing soil to dry out between waterings.

Comments: Tomatoes come in a wide range of sizes, tastes, colors, harvest times, growing habits and purposes. They are also available in your choice of a wide range of heirloom (mostly true from seed) and varietal hybrid types in trellis (i.e., spreading or indeterminate), bush (upright or determinate) or patio (compact ultra-determinate). Add to all of that multiple colors and sizes, and it's no wonder that tomatoes are among the world's best-suited vegetables for container growing. They are also among the easiest to grow and are valuable garden plants in that they require

Tomatoes (*Solanum lycopersicum*)

relatively little space for large production. Each plant, properly cared for, yields 10 to 15 pounds or more of fruit.

Varieties: The varieties of tomato plants available may seem overwhelming, but they can be summed up by several major types:

Midget, *patio* or *dwarf* tomato varieties have very compact vines and grow well in hanging baskets or other containers. The tomatoes produced may be, but are not always, the cherry-type (1-inch diameter or less).

Cherry tomatoes have small fruits often used for snacking or in salads. Plants of cherry tomatoes range from dwarf (Tiny Tim) to seven-footers (Sweet 100).

Compact or *determinate* tomato plants grow to a certain size, set fruit and then gradually die. Most of the early-ripening tomato varieties are determinate and will not produce tomatoes throughout the entire summer. Because of their compact habit, they make excellent container candidates.

Beefsteak types are large-fruited. These are usually late to ripen.

Paste tomatoes have small pear-shaped fruits with very meaty interiors and few seeds. They are a favorite for canning.

Orange or yellow tomatoes may be available to you only by growing your own.

Winter storage tomatoes are set out later in the season than most tomatoes and the fruits are harvested partially ripe. If properly stored, they will stay fresh for 12 weeks or longer. Though the flavor does not equal that of summer vine-ripened tomatoes, many people prefer them to grocery store tomatoes in winter.

Seeds: Plant seeds to a depth approximately twice the thickness of the seed; water and tamp soil firmly. Cover pot with a clear plastic container

or wrap, and wait for germination. Keep soil moist but not saturated, and keep pot out of direct sunlight to avoid overheating. Uncover at the first sign of sprouts. Thin to approximately one plant per six square inches when second set of leaflets forms on plants.

Transplants: Remove all lower leaf stems except top two levels. Place plantlet diagonally in a trough three inches deep in the soil, leaving only the upper two levels of leaves exposed, and tamp firmly. Roots will grow from the covered plant stem, as well as from the plant's root ball, creating a stronger, healthier, more drought-resistant plant.

Soil: The desired soil pH for tomatoes is between 5.8 and 6.5. Tomatoes are heavy feeders. Use a starter solution for transplants and feed throughout the season with a low-nitrogen fertilizer to encourage greater fruit production and less foliar growth.

Insects: Watch for spider mites and aphids in particular, as well as green horn worm, if plant is kept outdoors. **Solutions:** Spray plant with biologically friendly non-detergent soap mixed with water (1T per gallon water). Worms may be picked off and disposed of by hand. Wear gloves if you're squeamish.

Diseases: Fusarium wilt, which attacks and can kill young plants, is a notorious fungal problem, although in recent years, the susceptibility to the wilt has been greatly reduced in modern varieties. The disease is first marked by the yellowing of older leaves, then bright yellowing from top to bottom of the plant, often affecting only one branch. Sometimes the leaves droop and curve downward. Infected plants most often wilt and die. **Solutions:** Use *Trichoderma harzianum*, a harmless additive, as a soil drench to suppress root pathogens on newly sown seeds, transplants and established plants. Also, use only sterilized garden or potting soil of medium alkalinity (pH 6.5 to 7.0). It's a good idea to keep your plants well ventilated, either naturally or through use of a small electric fan to keep the air around the plants circulating.

Health Benefits: In the arena of food and phytonutrient studies, the star of the show over the past decade or more has been the lycopene in tomatoes. For years this carotenoid has been the subject of numerous studies for its antioxidant and cancer-preventing properties. The antioxidant function of lycopene helps protect human cells and other physiological structures in the body from oxygen damage and has been linked in human research to the protection of DNA (our basic genetic material) found inside white blood cells.

Another antioxidant role played by lycopene is in the prevention of heart disease. In contrast to many other food phytonutrients, the effects of which have been studied only in animals, *lycopene* from tomatoes has been studied in humans for years. The results show that it is a powerful combatant to a wide range of cancers, including colorectal, prostate, breast, endometrial, lung and pancreatic.

While lycopene may play an important role in the growth of healthy tomato plants, it isn't the only shining star that gives this food a growing reputation for being on the front line of defense against disease. Recent research suggests that scientists are finding that a wide range of nutrients in tomatoes — and not merely lycopene — are responsible for promoting human health, with additional studies being launched daily.

Ready for the Kitchen: When fruit is fully formed and deep in color. May also be harvested green before the first killing frost and allowed to ripen at room temperature (not refrigerated) for up to eight weeks, although I have in the past ripened some in this manner for up to four months. It takes 55 to 105 days to maturity depending on the tomato variety, so know what you're planting in advance. Pick fruit when it is fully vine-ripened but still firm. Picked tomatoes should be kept away from direct sun.

Annual Savings: Approximately $130 per year per person on average.