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THE CALIFORNIA GARDEN

How do his veggies grow? The no-dig way

Pat Marfisi applies the low-water, layering technique to his Hollywood Hills plot and reaps an abundance of organic produce.

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PAT MARFISI carries bales of alfalfa hay and straw into the center aisle of his Hollywood Hills vegetable garden and begins tearing off pieces of the stuff. He doesn't have any animals to feed, just his "no-dig" landscape: raised beds using lasagna-like layers of fodder, bone and blood meal and compost -- and remarkably little water.

Now that Gov. Arnold Schwarzenegger has declared a statewide drought, Marfisi's 300-square-foot patch seems more relevant than ever. It's his personal horticultural laboratory for a low-water, sustainable technique he learned working on organic farms in Australia last year.



Since he began gardening in this fashion, he says, he has been "inundated" with food. With the exception of some recent losses to raccoons drawn to the soil's abundant grubs and earthworms, Marfisi's garden is thriving with beets, collard greens, chard, celery, tomatoes, chives, peppers, basil, chives, lettuces and leeks. He estimates he grows enough food to feed three people daily.

When asked how much he waters, Marfisi shoves his hand deep beside some Swiss chard and pulls out moist, decomposed soil laced with remnants of straw. "I haven't watered in 10 days," he says. "This is what I want people to know: You can have beauty and abundance without a lot of water."

The retired Marfisi came upon the method while working as a volunteer farmhand Down Under, where the technique has been used since the 1977 paperback, "Esther Deans' Gardening Book: Growing Without Digging," promoted it as a solution to poor soil, rampant weeds, water shortages and costly food.

"Today, L.A. faces a lot of the same issues," Marfisi says. "In addition, we have global warming from pollution, and home gardening is a significant way to reduce transportation cost and related

pollution."

He points out that noted food and science writer Michael Pollan, author of the recent "In Defense of Food," estimates that the distance traveled by food to the plate of an average American is 1,500 miles. "This number is 150 feet for most home gardeners," Marfisi says. "That is a huge reduction in transport cost and pollution."

UNTIL HE had time for hands-on yard work, gardening was a passionate intellectual pursuit for Marfisi, who likes to sit for hours studying bugs with reference books in hand. But after leaving his job as a management consultant, he enrolled in UCLA Extension's horticulture program, which inspired him to dump water-hungry annuals and replace them with California natives. Then last year, Marfisi, who has a doctorate in economics, decided he wanted to become a farmer.

At age 60, Marfisi became a WWOOFer -- he joined [World Wide Opportunities on Organic Farms](http://www.woof.org) (www.woof.org), an international cultural exchange program that provides organic farmers free labor in exchange for providing workers with food and lodging.

The former consultant for big-name clients such as Sun- America thought it would be the ultimate work-study program to learn about sustainable farming and lifestyles.

"The attraction was to get into the heart of the world of permaculture and biodynamics and experience it firsthand," he says. "Being retired, I had the time. I thought, 'I'm still healthy and strong.' I figured now is the time to do it." (He hopes to join WWOOF again next year in Costa Rica).

He started on a farm in New Zealand. Moving to Australia, he eventually worked on farms in six cities in Tasmania, Southern Australia and the Northern Territory. His friends thought he was crazy.

"Here is a guy who made the transition from corporate board rooms to the deserts of Australia and New Zealand to examine horticulture," friend Perry Parks says. "I couldn't get my head around it initially. At his age . . . hiring yourself off to various farms? Digging fence posts?" he says, chuckling.

"But tracking him through his e-mail messages, it seemed to be a real change of pace and it took on a kind of a meditative quality. Everything seemed to be slower, simpler and clearer. He got a lot out of it. Now he's come back and put it into practice," Parks says.

THOUGH there is some debate over the origins of the no-dig method -- Ruth Stout's "How to Have a Green Thumb Without an Aching Back," first published in 1955, and Masanobu Fukuoka's "One Straw Revolution," translated to English from Japanese in 1978, are other references -- one thing is certain: It is easy and it works.

Veteran gardeners will say that the greatest amount of work in creating a successful vegetable garden goes into soil preparation. One of the best things about this sustainable alternative: You don't have to break your back digging and pulling roots.

"It's a wonderful movement," says landscape designer and garden writer Rosalind Creasy, author of "The Complete Book of Edible Landscaping." "So many gardeners presume you have to start with a rototiller. That only destroys the soil structure and burns the organic matter."

No-dig beds are created by layering organic materials above ground on newspaper. Marfisi starts with alfalfa hay (Deans recommends Lucerne hay, but it's hard to find locally), then straw and finally compost. Marfisi dusts the newspaper, alfalfa and straw with blood and bone meal. (Details in

accompanying story). The layers then decompose, turning into a nutrient-rich mixture much like compost.

Marfisi says no-dig is more efficient, water wise, because once a plant has a 10- to 12-inch root system, the layers of compost and straw keep moisture around the roots. And you can keep layering it over and over again as the organic matter breaks down.

Aside from its looking a little messy, Creasy finds few negatives to no-dig. She does urge novice gardeners, however, to learn about soil nutrients that vegetables need. "You still have to fertilize," she says. "You still have to renew the nitrogen. Peas are legumes and they have nitrogen-mixing bacteria. Broccoli is a heavy feeder. You [also] have to think about crop rotation."

Marfisi concedes that it is harder to get nitrogen and the acidity or alkalinity right in a fresh no-dig bed than in conventional soil. But once the organic matter has been in for two or three months and fertilizer is added, these imbalances seem to correct themselves, he says, and his harvests have been bountiful.

It seems Marfisi was destined to become a locavore from an early age. He clearly remembers the first seeds he planted as a 7-year-old in Missouri. The simple act of pushing seeds into soil and waiting to see what happened was the beginning of a lifelong yearning that would haunt him until he retired.

"I was blown away that seeds manufactured flowers," he says of discovering pink and orange zinnias weeks later. "Even to this day it still amazes me. . . . That picture remained in the back of my mind, while I was working 80 hours a week."

Now vegetables provide that same fascination. "Reconnecting to earth is huge for people who are contemplating retirement."

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