



Introduction

This book is about the beauty and practicality of solar food drying — the elegant simplicity of allowing the sun to finish off its summer’s work. In particular, it’s about how to harness the sun’s energy by building your own solar dryer that will deliver outstanding results.

Solar food drying is fun, easy and *free*. With renewable sunshine, you can dry as much as you like, as often as you like. Solar food drying is a far more practical way to dry your garden produce than most people would think. A good, high-performance solar dryer is designed to harness the sun efficiently and works amazingly well in almost any part of North America, and at most times of the year.

As an avid backyard organic gardener, I thoroughly enjoy being able to dry and preserve the extra bounty from my garden and small orchard with sustainable solar technology. Instead of trying to give away all those



The summer bounty at this farmers market in Eugene, Oregon, is typical of a growing number of communities around the country.

extra tomatoes and zucchinis, they go into the dryer. I can also take full advantage of seasonal produce from the local farmers market by drying the things I don't grow (or don't grow enough of), such as strawberries, blueberries, peppers, and so forth. My solar food dryer has become an essential and delightful tool for capturing the summer's bounty and enjoying healthful produce throughout the year.

Chapters 1 through 3 are intended to give you a well-rounded understanding of solar food drying and the solar energy that powers it. These chapters are meant to enrich your solar food drying experience, not to overwhelm you. If you don't have patience for the details, feel free to skip ahead. If you already know a few things about solar food drying (or want to build now and read later), you can go right to Chapter 4 and follow the step-by-step guide to building your solar dryer!

Chapter 1: Food Drying is More Fun in the Sun addresses the practical questions about solar food drying: Why dry? Why use the sun? And will it really work for me?

Chapter 2: Harvesting Solar Energy will familiarize you with some of the basic principles of solar energy that will help you successfully capture the sun's energy to dry food. Generally, these are the same principles that apply to active

and passive solar heating systems for space and water heating. This section includes some design guidelines and solar data that illustrate the power of the sun and the variation in solar energy by time-of-day, season, and latitude.

Chapter 3: Design Considerations for Solar Dryers introduces and describes the features that will make your solar dryer a big success. Some of the better dryer designs are described.

Chapter 4 provides complete, step-by-step instructions for building your own SunWorks solar food dryer from readily available new or recycled materials. A parts list, with lots of assembly photos and drawings, will guide you through the process.

Chapter 5: Putting Your Solar Dryer to Work tells how to get great results and maximize your enjoyment of your solar dryer. Operating tips, nutritional issues, and food storage methods are discussed.

Once you have begun solar food drying, a collection of favorite dried-food recipes in Chapter 6 will get you going right away.

The appendices provide additional solar energy and food drying resources and references that will help you become a solar food drying pro. If you run across a word in this book that you aren't familiar with, check the glossary in Appendix D.