The Ultimate Dehydrator Cookbook

The Complete Guide to Drying Food, *Plus* 398 Recipes, *Including* Making Jerky, Fruit Leather & Just-Add-Water Meals

Tammy Gangloff
Steven Gangloff & September Ferguson

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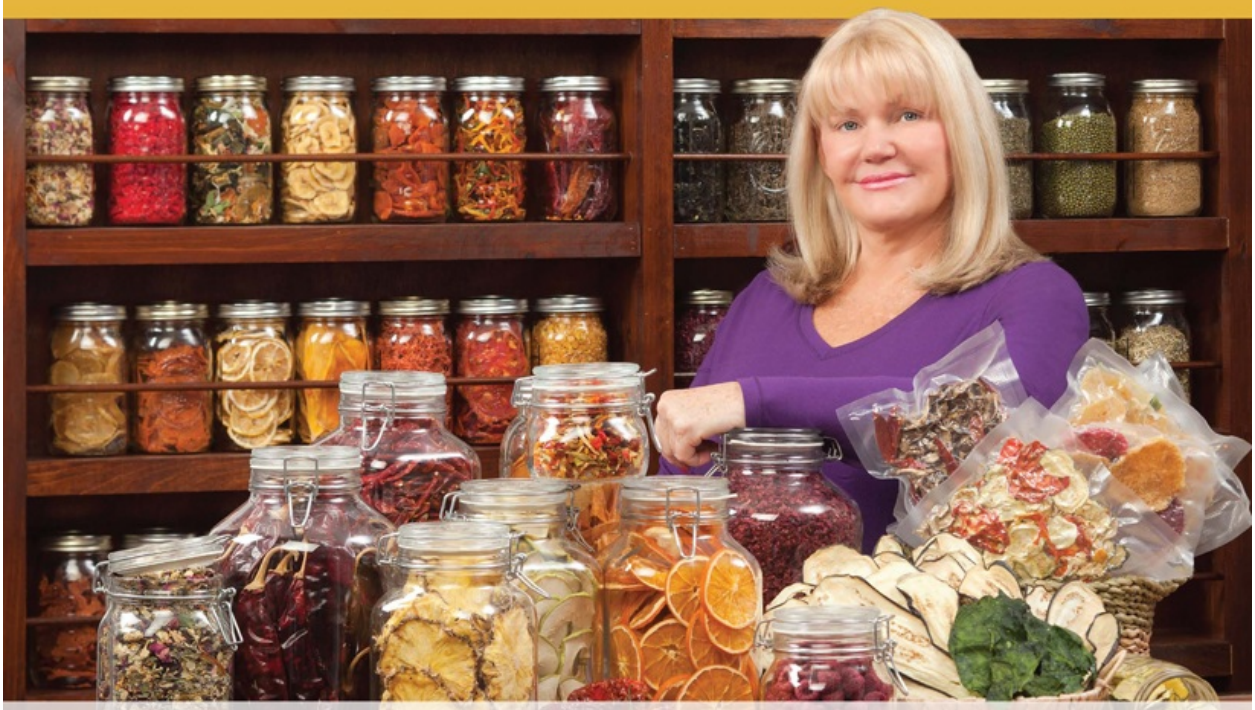

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STACKPOLE
BOOKS

 Published by
STACKPOLE BOOKS
5067 Ritter Road
Mechanicsburg, PA 17055
www.stackpolebooks.com

Printed in the United States of America 10 9 8 7 6 5 4 3 2 1

First edition

Cover design by Caroline M. Stover
Photography by kc kratt photography: www.kckratt.com

Library of Congress Cataloging-in-Publication Data Gangloff, Tammy.
The ultimate dehydrator cookbook : the complete guide to drying food, plus 398 recipes, including making jerky, fruit leather & just-add-water meals / Tammy Gangloff, Steven Gangloff & September Ferguson.
pages cm
Includes index.
ISBN 978-0-8117-1338-2
eISBN 978-0-8117-6086-7
1. Dried foods. 2. Food—Drying. I. Gangloff, Steven. II. Ferguson,September. III. Title.
TX609.G35 2014
641.4'4—dc23

2014014848

To James Gangloff, my beloved husband and loving father of my children.

You believed I was wonderful. You believed everything I did was amazing, no matter how small. You showed me my wings and said I could fly, and I did and you smiled.

And when my wings were broken, you held me in your arms until they healed and I could soar again. I am because of you. I love you.

And to James, my beloved son and brother of my children.

Such a giving and loving heart only an angel could possess. The light came and took you home. The angels sang. I wept.

I was given a beautiful gift; that gift was to hold you in my arms. I was blessed. I love you.

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Acknowledgments

Special thanks to Scott Gangloff for being a supporter and dedicated taste tester, and to Steve and Sue Ferguson for their love and support. Special thanks to Nancy Levensailor for her support. Also, to our photographer and to Stackpole Books and our editors for their time and efforts in making this incredible opportunity into a brilliant reality.

Introduction

With food dehydration you will embark on an incredible journey where you will learn to create delicious snacks and meals that will wow those around you. And because they are prepared using dehydrated ingredients, they will be faster and cheaper to make, as well as healthier. Follow me and I will show you the amazing benefits of dehydrating food. After that, there will be no stopping you.

WHY DRY?

Imagine placing your food into a state of suspended animation, perfectly preserved until it is needed. Picture effortlessly and quickly preserving your entire garden, using no unnatural additives or salt, and then storing those items five to ten times longer than possible with freezing or canning. Imagine lifting 50 pounds of potatoes with one finger, and five bushels of apples with another. This sounds unbelievable and yet, I have been doing this for years, and have only just begun to scratch the surface of the benefits of dehydrating food.

When I first started dehydrating, I was met with a lot of eye rolling and giggling. My children would look at me and say, “I’m not going to eat that.” What they didn’t know at the time, however, is that we all eat dehydrated foods every day without ever realizing it. Did you know that most restaurants use dehydrated foods? Have you noticed that over the past few years there are more and more packaged prepared dried items on the shelves of local stores compared to canned items?

Why, you might ask, has industry made this shift toward dried food? The foremost reason is its cost effectiveness. When you dry food, you remove nearly all the water it contains, significantly reducing it both in weight and size (volume). This allows you to store more food in a smaller space. Not to mention,

less weight per item reduces transportation costs. Dehydrated foods do not require refrigeration, and the cost to produce a plastic bag to store dried foods is appreciably less than that of an aluminum can for canned foods. Additionally, the long shelf life of dried foods means less money sent down the drain due to spoilage. From factory to store, dehydrating foods saves money. Indeed, the food industry has utilized the benefits of dehydration for some time, but most people are not aware of just how many benefits can be reaped from home dehydration! All of the cost reductions seen by food companies can also be enjoyed by you!

The benefits of dehydrating foods are not just monetary. There are many nutritional benefits to using dehydrated foods. Dehydrated foods are salt free and have a higher nutritional value than the same foods canned or frozen. The water-free, air-free environment created by proper food dehydration impedes the growth of many contaminants that may be a problem with canning or freezing. Somewhere along the way, we have been taught to think that if something comes out of a can or if it's frozen, it is good. It is time to relearn what is "good." For an in-depth discussion of the safety and nutritional benefits of dehydrated foods see page 3.

You might be thinking, I don't have time to do this. Certainly, we all wish we had more free time. More time to spend with our families, more time to spend gardening or enjoying a good book, and more time to spend helping others or volunteering in our church or community. What if I were to tell you that using dehydrated foods could cut the time you spend in the kitchen in half, or more? Home dehydration allows you to create a stock of healthy ingredients that you will have on hand at all times. This means no more quick trips to the store to pick up those few ingredients missing to complete a new recipe or to replenish spoiled produce. Everything you need will be at your fingertips, stored properly to last a long time, and ready for cooking. With dehydration, even "out of season" produce will be ready whenever you are! No more food prep—washing, peeling, and chopping—for each and every meal; it has already been done! Just grab a handful of this, a pinch of that, and turn on the heat! If you pre-package your meals, preparing a delicious dinner can be as easy as opening a package, placing it in a slow cooker, adding liquid, and turning it on. All that is left to do is think about what you want to do with all of that extra time!

If you are a gardening enthusiast you are certainly familiar with this scenario: you have worked hard to nourish a large and beautiful garden you're proud of, but you soon find that this bounty of food has become too much to eat right

away. Perhaps you try to can your excess produce, but you quickly come to realize the size of that sweat-inducing, labor-intensive task. What can you do to save your harvest from literally rotting on the vine? Dehydrating is a fast, easy, and simple way to solve this problem. In fact, you can preserve your entire garden and still have time and energy to tackle your neighbor's!

Because dehydrated foods have a long shelf life, it's a fast and affordable way to stock up and build a pantry that can sustain you and your family should you need it, whether because of the loss of a job, unexpected misfortune, hyperinflation, bad weather conditions, family and friends in need, or simply as a bridge when finances temporarily run short.

I had a dear friend quip back at me one day saying, "If there's an emergency, I have a huge freezer packed full of food." I replied, "Not if the electricity goes out." If your food is in the pantry and you lose electricity, your food is still safe. The great benefit of home-dehydrated products is you can cut the tethers binding you to environmental and mechanical mishaps.

This is just a glimpse at the possibilities home dehydration offers. Read on and I'll share with you the countless incredible and exciting things you can do with your dehydrator!

MY STORY

The passion I have for dehydrating came to me by way of another passion: cake decorating. I loved to design and bake fabulous cakes with intricate detailing. If someone needed a cake for a special occasion I would jump at the opportunity, and always strived to deliver a "WOW." I handmade all of my decorative pieces from fondant and gum paste. Depending on the size, most of these pieces would require at least a week to dry. Because of this, I couldn't accommodate requests on short notice. Searching for a better way, I decided to try using my oven instead of air-drying the pieces. I placed my fondant on a cookie sheet and then briefly heated it in my oven at 175°F (the lowest temperature it would allow) but once the pieces were dry, they were also discolored.

Finally, I learned about home dehydrators, and decided to give one a try. To my amazement, it worked beautifully. My pieces dried in hours, with no discoloration!

When Two Worlds Collide

Early on Saturday mornings, my husband and I would let our boys sleep in, and sneak off to the local farmers' market. Because this locally grown food offered a way to eat fresh, healthy, and untreated foods at a fraction of store prices, we were always eager to take advantage of buying in bulk. We would fill the back of our truck with bushels of apples, corn, potatoes, huge beets and carrots, collard greens, parsley, and more.

Returning home, Jim would kick back in his reclining chair and I would start canning and pickling. Hours I worked, through steam and sweat, diligently laboring over my pressure cooker. Try as I did, I could never finish canning our haul from the farmers' market, and would end up giving a good portion away each time to neighbors.

But each Saturday, Jim and I would be right back at the farmers' market, repeating the events of the week before. One Saturday, after having recently purchased a dehydrator for my cake fondant, I decided to give it a try with some of the produce my husband was lugging into the kitchen. I was skeptical as to how dehydrated food would taste, and doubtful that it would ever hold a candle to my canning.

The first item I dehydrated was collard greens. Holding a large leaf by the stem, I dropped it into boiling water for a couple minutes, then placed it flat on the dehydrator rack. Around six hours later, the collard leaf was completely dehydrated. First I must say, I am a collard green lover, so there was nary a person more qualified to put this petrified leaf to the test. I placed the dehydrated collard leaf into a pot of boiling water for about ten minutes, removed it, and plated it with a little lemon butter and salt. To my surprise and excitement, the rehydrated product tasted fresh, alive, and fabulous!

From that moment I threw myself into researching, experimenting with, and developing the art of dehydrating. I dehydrated everything in sight. If I came across a problem, I would not let go until I found the answer. I tried many different methods of prepping, storing, and cooking each item. I dehydrated truckloads upon truckloads of food, canning a distant memory in my rearview mirror.

Wake Up, Everyone, There's a New Way

My children, on the other hand, were less than enthusiastic about this new turn

of events. “I’m not going to eat that *dry* food,” my youngest would whine. I was lucky to have the support of my husband, an incredible man, who thought everything I made was delicious, and was willing to try anything new. His encouragement kept my persistence with my children strong; I knew that there was some way I could use my motherly ingenuity to get my children to try this just once. One evening, after preparing a meal nearly entirely of dehydrated foods, my youngest asked, as he always did, “Mom is there dried-up food in my dinner?” I looked at my husband, who was fighting a smile, and back at my son. “No, there isn’t,” I said calmly. After all, I reasoned to myself, the food was rehydrated, so it wasn’t dry . . . *anymore*. It wouldn’t be until much later that I revealed my sneaky ploy to my children. The funny thing is, no one ever noticed. When I later told my sons that many of their meals had been reconstituted dry foods, they were surprised, but didn’t mind. It was delicious all the same. As the years passed, dehydrated foods became a staple in our home.

A moment that stands out was the day my grown daughter September requested that I bring her more dehydrated foods. “I’m all out!” she pleaded. I had frequently brought dehydrated items over to her house, but I wasn’t sure if she was cooking with them or simply taking them to be kind, and stockpiling them in her basement. I was so happy that I ran around gathering tons of different items for her. Who knew she would soon become a dehydration expert as well?

I developed a tremendous appreciation for dehydrated foods and wanted to “ring the bell” to all my friends and family. I wanted to show them a better way of preserving foods, building their pantries, and making meals in a snap. I started inviting them into my home, where I would cook up a storm. “How do those carrots taste?” I would ask, “They’re huge, aren’t they?”

I would then pass around a small jar holding the dehydrated carrots. This little jar, I would explain, contains the equivalent of 5 pounds of fresh carrots. My “students” would rattle the dried carrots around in the jar and marvel at their miniscule size. “These tiny, dry morsels were used in your meal to make the plump tender carrots slices you are enjoying,” I would say with a smile.

It was my son Steven, who was fourteen at the time, who suggested I share my knowledge about food dehydration with the world by producing instructional videos on YouTube. And share I did; those videos have now been viewed by millions of people in all corners of the earth. From there, Dehydrate2Store.com was born, an instructional source for people like me, who are interested in

learning the fascinating art of dehydration. I developed my own techniques, and gained recognition as a dehydration expert. Nevertheless, to this day, many years after my first introduction to the dehydrator, I am still learning and experimenting, and have not lost my wide-eyed curiosity and excitement about food dehydration and storage.

A Brisk Reality

A few years ago we had a horrible storm that took out all of the electrical power lines in our area. Some people were deprived of electricity for weeks. Two days after the storm, purely out of curiosity since I already had everything I needed, I walked into a nearby grocery store. The store was dimly lit, run solely on generators. The shelves were almost bare, frantic customers grabbing whatever was left. *This is nuts*, I thought. If everyone kept a stocked pantry and practiced self-reliance this craziness wouldn't exist.

We practice escape routes with our children in case of a fire, we purchase homeowner's and life insurance, and save money for a rainy day, but talk about food storage in case of an emergency and people look at you like you just landed a spaceship.

Why the big disconnect? I believe that it stems from several common misconceptions about food storage. Food storage and dehydration are not about digging a hole and burying it, or yourself, in the backyard. Storing food is not about preparation for a zombie apocalypse or futuristic robotic takeover. To put it simply, dehydration is a fast, easy, healthy, and economical way to preserve food, with a longer shelf life and higher nutritional value than other methods, using no preservatives. As an added bonus, it allows us to build our pantries at a very low cost and to make delicious meals and creative treats in a snap.

So, when people think you're crazy for dehydrating and cooking with dehydrated foods, just smile and offer up a sample. They are sure to change their tune with their first bite.

1

How Dehydration Works

Welcome to your introductory course to the fascinating science behind food dehydration! If you broke into a sweat and started having high school flashbacks when you saw the word “science,” have no fear. We’re going to keep this course short, as well as fun and instructive. What you need to know is that it is very important to understand the science behind food dehydration to ensure your final dehydrated and stored products are of expert quality.

So let’s begin our class by jumping into our souped-up and sporty time-mobile. Our time travel budget is a bit tight, so we will have to rely on “imagination” for this next part.

“ZZZAP!” The time-mobile flashes us to ancient Egypt. Endless rolling golden dunes of sand stretch out to the horizon to your right, and ahead you spot a city. At its center, you watch as workers prepare a tomb to receive the mummified body of the recently deceased pharaoh, King Drymesumcinnamon. Unnoticed, we sneak into the tomb below. Gold and priceless gems are everywhere; but that’s not why we are here. Then we spot it. The real treasure: the pantry! Jars upon jars of dried spices and honey line the walls. These items were stored here, deep in this dry, sandy tomb, to accompany the king on his journey into the afterlife and sustain him. Quickly, before anyone can see, we snatch a jar of honey, and two of spices, and we frantically escape back to the time-mobile.

“ZZZAP!” Back in the lab we examine our find. Much to our astonishment, these herbs and spices look perfectly preserved. Even the aroma of a jar of dried pomegranate is alive and exuberant. To test your find, you whip together a tea from the pharaoh’s spices, and sip deeply. “Delicious!” you exclaim. (See page

110 for our recipe for Pharaoh’s Tea.)

I take a sample of honey and smear it onto a microscope slide. Using special stains and high magnification, I look into the sticky sweet substance. Much to my surprise, it is sterile! There are no bacteria, no mold spores, and no fungi to be found. The herbs are also devoid of mold. How can this be?

HOW DEHYDRATION WORKS

Food dehydration uses gentle temperatures (90° to 125°F for most items) and an even airflow to slowly remove the moisture from foods through the process of evaporation. We say an item is “dried” when we remove any amount of moisture from it, but for something to be considered “dehydrated,” 95% or more of its moisture must be removed.

The foundational purpose of food dehydration is to prevent food from spoiling and extend shelf life (although, as you will discover in this book, dehydration can be used for so much more). The main degrading agents to food are microorganisms (bacteria, fungi, and mold), oxygen, heat, moisture, and light. Through the process of dehydration, moisture is removed at the same time it creates an environment uninhabitable to most organisms. Through proper storage, exposure to degrading levels of oxygen, heat, and light can be eliminated.

PROPER FOOD DEHYDRATION

It is important to understand how proper dehydration and storage work in order to effectively create an expert finished product. Properly dehydrated and stored items will have the longest shelf life possible, will contain the highest possible levels of nutrients, and will have the best taste. Using the proper techniques when dehydrating will preserve the compounds that give your food its aroma, taste, and appearance.

As mentioned, an item is considered dehydrated when approximately 95% of its moisture has been removed. Since you have no way to test for this percentage at home, however, you will need to develop an experienced eye, ear, and hand. In general, properly dehydrated items are not sticky or tacky, do not feel moist or soft, and often will snap or crunch easily when broken. You will learn more about the specifics of each particular food item in the chapters that follow.

Many foods need special preparation before dehydrating, which can include blanching in boiling water, steaming, spraying with lemon juice, as well as others. These techniques also help to deter bacterial growth and preserve nutrients.

Lemon juice (and ascorbic acid, which works the same way), for example, is important to add to many foods before dehydrating for a few reasons. First, it prevents the browning that can occur when certain fruits and vegetables are cut. Cutting ruptures cells, which causes various enzymes to be released. These enzymes can react with compounds in the produce, such as phenols, to produce brown pigments. Enzymes function only in relatively narrow windows of temperature, pH (a measure of acidity), and salt content. If you expose them to high acidity or high heat, some can be deactivated. The application of lemon juice to the cut surfaces of fruit like apples or avocadoes plays just such a role.

Another beneficial function of lemon juice is that it has antibacterial properties. Most bacteria that are pathogenic (cause disease) to humans thrive around a pH of 7.4, while the pH of lemon juice is between 2 and 3. This is sufficient to inhibit the growth of many bacteria including some pathogenic strains of *E. coli* and *Salmonella* (the culprits behind food poisoning), and *L. monocytogenes* (which causes listeriosis). Finally, the application of lemon juice provides an additional boost of vitamin C. As you will soon learn, vitamin C is one of the few nutrients that are difficult to preserve.

THE EFFECT OF DEHYDRATION ON NUTRIENTS

In any type of food processing, from boiling and canning to simply cutting with a knife, nutrients are going to be lost to some degree. The unique technique of dehydration, which exposes food to a minimally elevated temperature over a long period of time, is ideal for maximum retention of nutrients. Compared to canning and freezing, dehydration comes out on top in regard to the conservation of nutrients. The United States Department of Agriculture indicates that on average 40% to 60% of nutrients are lost when food is frozen for storage, while canning can result in a whopping 60% to 80% loss. Home food dehydration, however, produces only an average nutrient loss of 3% to 5%!

The secret is in the temperatures employed in each process. Both the very low temperatures of freezing and the high temperatures of canning cause the cells of fruits, vegetables, and greens to break open, spilling out their precious nutrient

cargo. The temperatures used in dehydration don't wreak this havoc.

Here is how dehydration affects certain nutrients:

Calories: Dehydrating has no effect on the calorie content of a specific item, say a slice of apple or a broccoli floret. However, dehydrated foods have more calories *per weight* because removing the water shrinks the food and makes it lighter without removing any calories. The condensed product is consequently more calorie dense, meaning there is huge calorie difference between 1 ounce of fresh apples and 1 ounce of dried apples.

Carbohydrates and other sugars: As with calories, dehydration has no effect on the carbohydrate or sugar content of a specific piece of food. However, dehydrated fruit will be sweeter than non-dried fruit, since the removal of the water concentrates the sugar in the fruit into a smaller volume and weight. Again, there is a significant difference in the carbohydrates contained in 1 ounce of fresh grapes versus 1 ounce of raisins. This kind of concentration is a boon to hikers or athletes who may need a quick energy boost from a lightweight and portable food, but it can be problematic for dieters, if you're not mindful.

Fiber: Dehydrating food has no effect on total fiber content. Fiber is a plant material that aids with digestion.

Minerals: Minerals, such as iron, are not affected by food dehydration.

Proteins: Dehydration has no effect on total protein content.

Vitamin A (beta-carotene): Beta-carotene (responsible for the brilliant orange color in foods like carrots and sweet potatoes), which is converted to vitamin A in the body, is destroyed by contact with air. You can actually watch this happen. Leave carrots out in the open, and as the vitamin A begins to deplete, the color of the carrots will fade. Luckily, this can be avoided by blanching before dehydrating. Doing this changes the chemical structure of the food slightly, preventing this loss and in fact increasing the quantity of beta-carotene it contains. As an experiment, dehydrate some uncooked carrots and some blanched carrots and set them side by side. The dehydrated blanched carrots will not only be a much brighter orange, but over time their color will not fade compared to carrots that have not been subject to blanching.

HOME DRYING VS. COMMERCIAL

DEHYDRATION

Commercially dried fruit is usually treated with preservatives and sweeteners, which changes its nutrition content. Additionally, many companies juice the fruits before dehydrating them, resulting in a less colorful, less aromatic, and less flavorful product. Just one more reason to jump on the home dehydrator bandwagon!

Vitamin B: B vitamins are water-soluble; because of this, they can be lost if steamed or blanched. However, they will not evaporate along with the water when you dehydrate.

Vitamin C: Vitamin C is a delicate flower, sensitive to exposure to light and air. The best way to prevent or minimize the loss of vitamin C is to remove both —air by using vacuum sealing and oxygen absorbers, and light by storing foods in Mylar bags or away from light. In addition, spraying appropriate items with lemon juice prior to dehydrating will add a blast of vitamin C.

KEEPING THE BUGS AT BAY: BACTERIA, MOLD, AND FUNGI

At some point, whether it is refrigerated or left at room temperature, fresh food will begin to degrade. The prime culprits are bacteria, mold, and fungi. Canning, freezing, and dehydration are all attempts to stave off rot and to preserve food for future healthy (and one hopes tasty!) consumption. Proper dehydration (and subsequent storage) is the most successful of these processes because it virtually eliminates what these little pests and other contaminants like best.

Temperature: Most bacteria that are pathogenic (cause disease) to humans thrive at human body temperature (98.6°F). Once the temperature begins to rise above that temperature, the growth of many bacteria begins to slow, and some even die; hence the effectiveness of having a fever when you are sick. Some common foodborne bacteria include *Clostridium botulinum* (which causes botulism) and *Salmonella* and *Campylobacter* or *E. coli* (food poisoning). The growth of nearly all strains of these bacteria slows between 98.6° and 112°F or higher. Most foods are dehydrated at 120° to 125°F, except meat, where higher

temperatures are used (155° to 160°F).

Air (oxygen): Some pathogenic bacteria are aerobic (thrive in the presence of oxygen), and some are what are known as obligate aerobes (they will die without oxygen). As such, air removal via vacuum sealing (our preferred method for storing dehydrated foods) inhibits the growth of, or kills, some pathogenic bacteria. Furthermore, a properly sealed vacuum bag will prevent new bacteria from landing on and colonizing your food.

Moisture: The most important deterrent to the growth of contaminants is the removal of water. If performed properly, dehydration should remove at least 95% of the moisture the food originally contained. Most bacteria, mold, and fungi cannot grow, and often die, below 10% water content. Food storage techniques such as freezing and canning, where the food is exposed or stored in contact with liquid, pose an increased risk for food illnesses if not performed properly.

Common Foodborne Illnesses You Want to Avoid

Campylobacter: One of the leading causes of food poisoning (fever and abdominal distress), this bacterium is commonly associated with undercooked chicken and grows best between 98.6° and 108°F; it is destroyed at temperatures above 120°F. These bacteria are fragile and cannot tolerate drying.

Clostridium perfringens: This is typically only associated with raw meats, and therefore is not a prime concern with food dehydration. The organisms are killed at 150°F, and do not replicate in a moisture-free environment.

Salmonella: This bacterium causes salmonellosis (“salmonella poisoning”); victims experience fever, vomiting, and abdominal discomfort. *Salmonella* is often spread through polluted water, and commonly associated with uncooked eggs, undercooked chicken, and reptiles. Since we do not recommend the dehydration of raw eggs—or reptiles—the risk is reduced. The bacterium is not destroyed by freezing, and requires high temperatures to kill it. Luckily, the temperatures used in the dehydration of jerky (155° to 160°F) are sufficient to destroy the organism. For added safety, make sure to wash your hands and utensils prior to dehydrating, and make sure your chicken is dehydrated thoroughly.

Clostridium botulinum: Although botulism is rare these days in the U.S., it is important to include on this list because of its history with food canning, and

because it is especially dangerous. This organism is waterborne, and many of its outbreaks have been attributed to home canning. Home canning uses hot liquids to store food long term. If done improperly, or if a seal breaks, this bacterium can infect the food items once they cool. As it grows, *C. botulinum* produces a neurotoxin that causes paralysis, resulting in respiratory and other problems. The growth of *C. botulinum* is abruptly halted by removing moisture from foods, and therefore has not been an issue in home dehydration. *C. botulinum* also cannot grow in honey due to its viscous state and lack of water. Although it cannot replicate, the toxin/spores of botulinum *can* be found in honey in small amounts. These small amounts are only dangerous to infants, and therefore it is not recommended to feed honey to infants less than one year old. It is important to note that the association of botulism with canning is mostly a historic one, and that recent data from the CDC shows that home canning–associated botulism cases are now very rare.

Bacteria in Infused Oils

If you have made infused oils at home using fresh herbs, flowers, fruits, or vegetables, you know that they go rancid quickly. In fact, it is recommended that you keep these infused oils for only about one week *in the refrigerator*. Why is that? Oil, like honey, is a viscous solution, a difficult environment for bacteria to inhabit, as they need water and many also require oxygen. However, when you add fresh ingredients to oil, you are also adding water. These leaves, flowers, or bits of fruit or vegetables provide small pockets of moisture ideal for bacterial growth.

If, however, you infuse your oils with properly dehydrated ingredients, you eliminate this problem entirely. Infused oils made with dehydrated items will last up to ten times longer than those prepared with fresh ingredients, and are equally delicious! For more on making infused oils with dehydrated ingredients, see page 170.

As you can see, the common bacterial causes of food illness are not a significant cause for concern with food dehydration. The risk of this kind of contamination in properly dehydrated foods is extremely low, and significantly lower than canning and freezing, making it the safest food storage method of the three. In fact, the highest risk for contamination of your dehydrated foods is insects! To prevent an infestation, simply make sure all of your food items are in

sealed vacuum bags, Mylar bags, or tightly sealed buckets, and that your storage bags are not punctured.

However, home dehydration does pose a risk in regards to milk and eggs, as salmonella and staphylococcus can grow in these items quickly, even during the dehydration process. Because of this, we do not recommend trying to home dehydrate milk or uncooked eggs. If you wish to store them long term, purchase commercially prepared powdered milk and powdered eggs.

GENERAL SANITATION

Although the risk of foodborne illness resulting from dehydrated foods is extremely low, it is important to always practice proper hygiene and sterile technique to avoid the introduction of any contamination. Sterile technique is simple. Wash all items with soap and water, or rinse with water before dehydrating. Make sure all kitchen surfaces and utensils are clean. Wearing latex or vinyl gloves will also help prevent the introduction of oils from your hands into your foods.

GOOD BACTERIA

As you may know, a lot of bacteria are good! Our body is filled with a vibrant landscape of bacteria that we call our “normal flora.” These bacteria are important for the production of compounds we need for food digestion. This population is so abundant, in fact, that we contain more bacterial cells in our body than human cells! Spooky!

Furthermore, small exposures to bacteria and viruses throughout our lives help to build up a strong and responsive immune system, and even reduce the occurrence of immune hyper-reactive processes such as asthma.

With the recent emphasis on probiotics in the media, we have been asked, since food dehydration kills or causes many bacteria to go dormant, will consumption of dehydrated foods interfere, reduce, or kill this normal flora, making us ill and prone to infection? The answer, of course, is no.

The vast majority of our flora is established when we are very young. Our floral changes throughout life are minimal, and the relationship between diet and floral changes is not fully understood. The different *types* of bacteria in our flora change, although the abundance is always high. Natural exposures to bacteria in

our daily lives—in our water, on surfaces, in the air, etc.—serve as immune and floral support.

Our flora is typically only radically changed as a result of more extreme medical interventions, such as certain medications, chemotherapy and radiation therapy, and gastrointestinal surgery. Your physician may recommend ways to supplement this bacterial loss, but likely your flora will simply repopulate itself on its own from regular daily exposures.

In summary, some good bacteria will be lost from food during dehydration, but even a diet consisting solely of dehydrated foods is not likely to disrupt your normal flora.

SAFE REHYDRATION

Since you are reintroducing water during rehydration, you can potentially create an environment where new bacteria, or dormant bacteria, can grow (just like if you left wet food in the open). Studies show that if you rehydrate foods for 30 minutes or less at room temperature, the risk of harmful levels of bacterial growth is essentially absent. Rehydrating while heating for longer periods (such as when making soups) is also safe since high temperatures hinder bacterial growth. Similarly, rehydrating in the refrigerator (see page 25 for more information on this), which may take up to 24 hours, is also fine since the lower temperature slows or halts bacterial growth. In summary, you should never rehydrate in room-temperature water on the countertop for more than a half hour. If the item is expected to take longer than 30 minutes to rehydrate, put it in the refrigerator to rehydrate, or use boiling water.

Congratulations on completing the course! You are now an expert in the science of food dehydration, and on your way to building a delicious pantry of food that can sustain you, your family, and your friends for years to come.

2

Your Dehydrator Toolbox

It is often said that a carpenter is only as good as his tools, and this saying holds true for home dehydration as well. In this chapter we'll cover what to look for in a dehydrator that will serve your particular needs, as well as the other tools, utensils, and equipment that will make the process easier, more time efficient, and help yield the best possible results.

THE DEHYDRATOR

A commercially produced electric dehydrator for home use (which is what I recommend and use) is a small cube-or cylinder-shaped container, usually constructed from metal and sturdy plastic. They range in size somewhat but typically are about the size of a microwave. If you were to take apart your dehydrator, you would find that it contains very few parts, primary of which are shelves, typically mesh-lined, for the food; a fan; and a convection heating unit of some sort, usually heated coils. The concept is simple: the dehydrator maintains a low but consistent heat through these coils, and uses the fan to distribute that heat evenly to your foods. Dehydration is accomplished through low heat and long drying times, as opposed to an oven, whose higher temperatures result in food being cooked instead of dried.

Because there are so few parts, you need to pay special attention to each one when you go shopping for a dehydrator, as well as a few other features.

Size: Dehydrator size is determined by the number of trays it contains, typically ranging from four trays up to nine or more. Economically, the smart choice would be to purchase the largest model. The purchase price will be more, but if you become a dehydrator enthusiast, I guarantee you will kick yourself if you don't opt for the largest size available from the start. Suffice to say, I own three 9-tray dehydrators that I run at the same time, and all of the time.

The fan: Placement of the fan on your dehydrator is key to proper dehydration. The fan should be affixed to the back wall of the dehydrator; this arrangement will create an even airflow that pushes horizontally across each shelf of food, expelling the moisture it picks up from the food out the front and sides of the dehydrator. Some dehydrators, typically the cylindrical ones, have the fan on the bottom or top of the device. This forces air through each layer of food *vertically*, creating poor air circulation since the air is impeded by the food it is supposed to be drying. As a result, foods closest to the fan will dry first, while those farther away remain moist. As such, you will have to rotate your trays periodically to ensure even drying. This problem is eliminated by placing the fan in the back (this feature is most typically available in cube-shaped models)

Trays/shelving: Dehydrators typically contain multiple removable trays, which come in two basic styles. The frame of the tray may be either plastic or metal, and does not make a difference. The top of the tray, which is where you will place your food, may also be metal, often shot through with numerous small holes, or a plastic mesh. Trays with plastic mesh tops are a far better choice; metal tray tops will retain heat, which can burn the bottom of your food. I recommend you purchase a model with plastic mesh tray tops that are removable and flexible, not permanently attached to the tray framework. This will make for easy removal and cleaning of your trays. Additionally, if the mesh tray tops are flexible, you can bend them to fit into your sinks for soaking and cleaning. You will find, also, that the ability to bend and contort your plastic mesh tray tops will make the removal of dried foods from the trays easier.

DEHYDRATING AND YOUR OVEN

Some people try to dehydrate using their home oven, and some models even have a “dehydrate” feature built in. I do not recommend either of these. Conventional and convection ovens do not offer adequate airflow, and the lowest temperature setting is typically around 150°F; far too high for dehydrating most items. A dehydrator is one of the few absolutely necessary tools for safe, effective, and efficient home dehydration.

Temperature control: All food dehydrators should have a temperature control. I have received thousands upon thousands of emails from people with questions and concerns regarding their dehydrators. To my horror, many people have purchased dehydrators without a temperature control. As sad as it is to say, my only response is to “toss it in the garbage!” Different foods require different tempertures to be dehydrated properly; if you can’t precisely control the temperature in the dehydrator, you can’t dehydrate effectively or safely. To get maximum use from your dehydrator, look for one that will go as low as 90° and as high as 150°F (if you want to be able to make jerky).

Timer: I find this to be a completely unnecessary feature that only serves to up the price of the dehydrator. You never want your dehydrator to shut off after a specified time because once the dehydrator turns off, your food will immediately begin to reabsorb moisture from the air. Remember, you can under-dehydrate, but you cannot over-dehydrate!

As you can see, there are numerous methods to dehydrate food at home. However, it is imperative that your food be dehydrated efficiently and properly for a finished product that is not only delicious, but also safe. The best way to do this is with a commercially produced electric dehydrator capable of heat control and even air circulation.

OTHER USEFUL EQUIPMENT AND SUPPLIES

Buying a quality dehydrator suited to your needs is of primary importance, but there are a number of tools and products that can help increase your efficiency and the quality of your dehydrated food.

Apple peeler: This item will help you peel, core, and evenly slice an entire apple in just seconds. With most models, you can easily remove the corer and use it to peel potatoes as well. Various models allow you to stabilize the device during use with either suction cups or a clamp. Keep in mind that a clamp, though a sturdy option, may scratch some surfaces. Slicing evenly is important for even drying, and speed and efficiency will make you a dehydrating master. For these reasons, an apple peeler is an amazing tool to have!

Ascorbic acid/lemon juice: Ascorbic acid is another name for vitamin C. Many food items require pre-treatment with a vitamin C-based item prior to dehydrating to prevent browning. Ascorbic acid can be purchased as a powder and then dissolved in water to use as a soak or spray. Be sure you follow the

manufacturer's directions for using ascorbic acid, as using too much can burn your food. Alternatively, which I prefer, you can simply use lemon or another citrus juice to spritz those items requiring vitamin C pre-treatment.

Bean frencher: If a recipe calls for frenched beans you will need this device, which will cut the beans into thin strips from top to tail. Simply feed the green beans through the frencher, either one by one or using the faster hand-crank models.

Blender: You will need a blender if you want to make fruit leathers, baby foods, and breadcrumbs, or to turn your dehydrated food into powders or sugars.

Cherry pitter: These come in all sizes and prices. A small handheld pitter will pit one cherry at a time, while a larger one will pit a handful all at once while turning a handle or lever. It beats cutting the pits out one by one with a knife.

Disposable latex or vinyl gloves: It is important to wear disposable gloves when handling dried food in order to prevent the transfer of oil or moisture from your hands to the food, which can end up resulting in spoilage. If you choose not to wear gloves, make sure any hand lotions are thoroughly washed away, and your hands are completely dry prior to handling your food.

Drying sheets: Use these reusable or disposable sheets of silicone, Teflon, or other nonstick material to line your drying trays when you are dehydrating very small items that might fall through mesh trays, or sauces, purees, or fruit leathers. These can be purchased online. Alternatively, you can use a nonstick oven liner trimmed to the size of your dehydrator tray. Parchment paper also works but because it's lightweight, it may get blown around by the fan in the dehydrator. You can secure the paper by weighing down the corners with medium-sized flat stones.

Food processor: This is great when you need to grate carrots, zucchini, or potatoes, or slice and chop fruit and vegetables to the same size and thickness.

Kitchen scissors: Once your food has been dehydrated, it is far easier and safer for your fingers to cut it with scissors than a knife.

Meat slicer: This tool is not just for meats! You have the ability to select a desired thickness, and quickly and evenly slice meats, fruits, or vegetables. If you make our signature Crazy Fruits (page 27) or fruit and vegetable chips they must be cut very thin, and this is most easily done with a meat slicer. A mandoline is another good choice for slicing vegetables and fruits very thinly.

Rolling pin: This is a useful tool when preparing pumpkin, squash, and sweet potatoes for dehydration. After cooking these items (see their individual entries for particulars), reduce them to a puree, cover with a sheet of parchment paper, and then spread them over the drying sheets using a rolling pin before dehydrating.

Spray bottle: Many food items need to be soaked or sprayed with lemon juice or a solution of ascorbic acid prior to dehydration to prevent browning. Spraying is less messy and generates less waste than soaking, and a food-grade spray bottle makes doing this a snap.

Squeeze bottles: These come in handy when making leathers (see Chapter 6). Fill the bottles with the purees and you can squeeze the puree directly onto drying sheets, mixing different purees together in colorful designs. Be sure to buy food-grade bottles.

Stainless steel knives: When dehydrating, all knives and all cutting tools should be stainless steel. Using a utensil that is not stainless steel could discolor some items.

Tea infuser, sealable tea bags, and tea press: Dehydrated herbs, flowers, and fruit ground into tea make fabulous gifts. *Sealable tea bags* come in multiple sizes and are easily filled and sealed with an iron, vacuum sealer, clam sealer, or even a curling iron. I recommend larger tea bags because they are easier to fill. *Tea infusers* come in many different styles, from a small round ball that you fill for one serving at a time, to a small teapot for many servings. A *tea press* is a small cylindrical container with a plunger/strainer that is used after steeping to push herbs to the bottom of the container. These are fast and easy to fill with your dehydrated herb mixtures.

3

Dehydration 101

In this chapter we will cover everything you need to know about dehydrating. We'll guide you step by step through the process so you can achieve the best possible end product.

SETTING UP THE DEHYDRATOR

Always preheat your dehydrator. This should be done about 15 minute before filling. Depending on how much you will be dehydrating, you can turn it on, then do your food prep while it preheats.

If you'll be dehydrating items that have been minced, grated, or chopped into tiny pieces that may fall through the holes of the dehydrator trays, fit the trays with drying sheets. You should also use drying sheets when dehydrating purees or anything that might drip. When making jerky with a jerky gun (in which the meat is like a ground beef, hamburger texture with brine mixed in) using a drying sheet will make it easy to remove and provides a non-textured surface, resulting in a smooth jerky.

AVERAGE DEHYDRATING TEMPERATURES

- 90°–110°F for herbs

- 125°F for fruits and vegetables
- 155°–160°F for meats

FOOD PREP

When cutting and prepping your food before dehydration, think about how you plan on using that item. In my pantry, for example, I keep dehydrated sliced carrots, shredded carrots, chopped carrots, and whole baby carrots, so that I am ready for whatever a particular recipe may call for. Think about doing this as a time-saving measure for the food items you use most frequently in cooking. The exceptions, though, are herbs and garlic. To preserve the best flavor, dehydrate herb leaves whole and garlic in slices, and then crush, chop, or mince when needed.

There are many fruits and vegetables that discolor once cut and exposed to air. To prevent this, they should be sprayed with lemon juice or an ascorbic acid solution as soon as possible after being cut. It also gives them a welcome shot of vitamin C. In the individual produce entries, I specifically indicate which can benefit from this application. Take note that leafy greens, herbs, and broccoli should never be sprayed in this way—the acid will turn them brown.

I highly recommend that you use only stainless steel knives when cutting. Certain foods, like bananas, will discolor if you use anything but stainless steel to slice them. The food is still good to eat, just less appetizing looking.

INVEST IN DISPOSABLE GLOVES

Disposable vinyl or latex gloves are indispensable:

1. If working bare-handed, the lotions, moisture, and natural oils on your skin can quickly be absorbed by your dehydrated foods.
2. Peter Pepper prepped a pack of pickled peppers for preserving without proper protection, and suffered second-degree burns on his hands.
3. Many different fruits and vegetables will stain your fingers and nails unflattering colors.

4. Lemon juice is used frequently to prep dehydrated foods. If you have a cut, lemon juice is the last thing you want coming into contact with it.
5. Rinsing, scrubbing, and prepping produce without gloves can turn your hands to sandpaper.

Tips to Save Nutrients and Reduce Your Workload

We know that dehydration is the best method of food preservation when it comes to retaining nutrients. Here are some steps you can take for even better nutrient retention, as well as saving yourself some work.

- Leaving the skin and stem on while steaming, blanching, boiling, or baking fruits or vegetables headed to the dehydrator will help to hold in nutrients that would otherwise leak out. It will also make the skin softer and easier to remove. For example, carefully place an entire pumpkin in a large pot of boiling water, stem and all. Cover and cook until tender, then remove and place in a sink filled with ice water to cool. Now marvel as the pumpkin casing simply cracks off or peels away with ease, revealing a beautifully soft and vibrant sphere, most all of its nutrients left intact.
- Cherries and grapes can go into a pot with their stems, which act as little plugs, holding the nutrient-rich juices inside. Make sure to cool fully before removing the stems.
- Some produce that will be dehydrated raw, such as herbs and greens, can be dehydrated whole, then chopped or crushed after drying. Doing this will retain nutrients as well as flavor.

ITEM PLACEMENT IN THE DEHYDRATOR

When placing items on the dehydrator trays, it is typically okay to pile on the smaller items like peas, beans, corn kernels, or smaller chopped items such as carrots or celery, or herbs and leafy items like spinach. The rule typically is, if it is sliced, it should not overlap but for anything else it is usually okay. The reason you would not want to overlap your sliced items is so they do not become fused together. The exception to this rule is when you are making our Crazy Fruits (page 27), where the goal is for the items to become fused.

It’s fine to dehydrate different vegetables and fruit in the same dehydrating

load even if their dehydrating times are not the same—you can always remove items from a load that have completely dehydrated. However, you do not want to add undehydrated items to a partially dehydrated load. The moisture from the newly introduced items will add humidity, causing the other items to absorb that moisture and extending the total time needed for complete dehydration.

When mixing different items in your dehydrator, it is a good idea to place juicier items (unless they can be placed skin side down) on the lower racks and less juicy items on the higher racks in case of dripping. For example, if you place a tray of beets above a tray of white potatoes, you could end up with purple polka-dotted potatoes. Mushrooms can get discolored in the same way. With fruits, it's the blueberry that needs to be placed on the lowest trays, and raspberries and blackberries should go on the top rack when mixed with other items that could drip. The reason for this is that drippings can cause blackberries to deflate, leaving you with a deformed berry.

ODOR CONTROL

Using your dehydrator is like having a wonderful scented air freshener, filling your home with enticing aromas of different fruits, herbs, and flowers.

I have dehydrated many different items at once and have never had the scents transfer from one item to another. When the fan is located at the back of the dehydrator, it pushes the air across the food and out the front.

The one exception to this are onions. If you dehydrate raw onions with other food items, a slight onion smell and taste can transfer. You can avoid this by dehydrating onions on their own or blanching them before dehydration (the latter will also speed the drying process). Be aware that filling your entire dehydrator with raw onions can be a tearful event. In such a case, I would strongly recommend that you place your dehydrator in the garage or enclosed porch on a dry day.

DRYING TIMES

For every food we cover in this book, we provide an approximate time needed to dehydrate the item; note the word “approximate.” Because so many variables can affect the drying time, these times can and will vary. Here are the factors that can affect drying times:

Region and variety: All tomatoes (and other produce) are not created equal. There are literally hundreds of varieties of tomatoes, each with distinguishing characteristics of color, texture, and flavor. Some are better used in sauce, some for eating fresh, some are lower in acid, some are better for long-term storage. All of these traits can impact precisely how long it might take to dehydrate a particular tomato. Now layer on top of that the impact of where precisely your tomato was grown and when it was harvested. If you’re only dehydrating produce coming from your own garden or a local CSA, this won’t be an issue for you. But if you’re buying in bulk from the supermarket, or you frequent different farmers’ markets, you may notice a difference in the time it takes to dehydrate, say, a Brandywine tomato you bought at a local produce stand versus one from a larger supermarket that is having the tomatoes shipped in from another area.

Age of the item: Over time, enzymes break down the starch in fruits into simple sugars. Unlike starch, these sugars are water soluble, and therefore attract water, making the fruit larger (if vine-ripened), softer, and juicier. This higher sugar and water content can increase the item’s drying time.

How the item is cut: Whether your food item is sliced, grated, cubed, or not cut at all will affect drying time. Typically, thinly sliced or shredded items dry the quickest, while cubed or chunked items take longer.

How the item was prepped: Some items should be blanched prior to dehydrating, while others are dehydrated raw. Blanched items will take less time to dehydrate than raw.

Density of the food on the drying rack and in the dehydrator: Are you using all the dehydrator trays? Are they fully loaded or partially loaded? The more items in the dehydrator, the longer it will take to thoroughly dehydrate them.

Type of dehydrator: Using a dehydrator with a back-mounted fan (see page 10) will significantly reduce your drying time. Dehydrators with a floor-or top-mounted fan will take longer to dry the same food, and may require periodic tray rotation for faster and more even drying.

Humidity level: If it’s a humid day (regardless of the temperature), it will

take slightly longer for your dehydrator to do its job.

THE 5 GOLDEN RULES OF DEHYDRATING

1. **A Carpenter is Only as Good as His Tools**
   Having a good-quality dehydrator is the key to dehydrating success. Choose one with a reputation for durability and a design that facilitates even, uninterrupted airflow.
2. **Say No to the Timer**
   Some dehydrators offer a timer as a feature. To that I say, “Just say no.” Even if your dehydrator has a timer, do not use it. A steady and constant airflow is good for your dehydrated foods; it moves moisture out and away from your food. The timer will automatically shut off your machine while you are away, allowing moisture from the air to seep back in. This moisture creates a fertile environment for bacteria and will result in the spoilage of your food.
3. **Start Me Up Before You Go Go.**
   Start your dehydrator while you are preparing your food so it can reach the desired drying temperature prior to placing the food inside. Once you wash, cut, and prep your food, place it immediately in the dehydrator; don’t let it sit out at room temperature for any length of time.
4. **When in Doubt, Keep Drying It Out!**
   It is not possible to overdry your food. If you are at all uncertain, keep going, even if you are beyond our recommended drying time.
5. **You Cannot Overdry!**
   I promise that no matter how long you dry your food, it will not turn to dust. Under-drying is your enemy, and will leave your food prone to molding and spoilage.

Average Dehydrating Times

This list will give you a sense, in the most general way, of approximate drying times for different categories of food. We provide drying times and temperatures

throughout the book for specific items.

- **8–10 hours:** Frozen vegetables (placed directly onto trays while frozen)
- **8–10 hours:** Mushrooms and onions (sliced or chopped)
- **8–15 hours:** All fresh vegetables, excluding potatoes or sweet potatoes and yams
- **12–15 hours:** Sweet and white potatoes (thinly sliced or chopped)
- **12–15 hours:** Fruits, cut into ¼-inch slices or ½-inch cubes
- **15+ hours:** Fruit leathers
- **15–24 hours:** Grapes
- **18–24 hours:** Blueberries, raspberries, whole cranberries
- **24–36 hours:** Chopped dried dates for date sugar

WHEN IN DOUBT . . .

If you are uncertain if something is completely dry, place the item in question in a ziptop plastic bag for a day or so, making sure the bag is completely sealed. If it's completely dried, it will still be paper-dry or brittle when you check back on it. If it has become sticky and wet, place it back in the dehydrator.

APPROXIMATE WEIGHT CONVERSION CHART

The amount of water lost in dehydration is pretty amazing. Check out the chart below for some examples of fresh vs. dehydrated weight.

Produce	***Weight Fresh (lbs.)***	***Weight Dehydrated (lbs.)***
Apples	20	6.5
Beans	20	3
Carrots	20	3
Cherries	20	7
Corn	20	6

Corn	20	6
Onions	20	3
Peaches	20	6.5
Pears	20	6.5
Peas	20	5
Prunes	20	7.5
Squash	20	2

HOW DO YOU KNOW IT'S DEHYDRATED?

All food must be dry, dry, dry. I cannot stress this enough. It may take some practice and experience to know when your items are completely dehydrated. In general, a properly dried item will not feel sticky or tacky to the touch, and there should be no sign of moisture. Many items should also have an audible snap or crumble when broken if properly dehydrated, but some will simply be bendable and feel dry to the touch. Lower-sugar items (like raw onions or raw papaya slices), in general, will be bendable and tear easily like paper, while those higher in sugar (figs, dates, and apricots, for instance) are also bendable but difficult to tear. In contrast, some smaller high-sugar items, like grapes and cherries, will be hard and unbending and make a clicking sound when dropped on the counter. When a handful of these items are squeezed, they should not clump together. Properly dried food items should pop and peel off the dehydrator trays with ease. If you are pulling and prying at your food only to leave pieces stuck behind, it is not dehydrated and should be placed back in the dehydrator.

In each of the individual ingredient entries and throughout the book, we describe how particular items should look, feel, and/or sound when properly dehydrated.

NEVER, EVER, EVER:

- Never use granulated sugar in blended items such as fruit leathers. The sugar will crystallize over time. Instead, use honey or corn syrup.
- Lemon juice is great for prepping many items. However, do not spray lemon juice on broccoli, leafy greens, or herbs prior to dehydrating. The acid will turn them brown.

TIPS TO HELP SPEED UP THE DEHYDRATING PROCESS

Dehydrating isn't something you can rush. However, there are a few things you can do to help the process along while maintaining a good end product, if you like.

- When dehydrating fruits with a high sugar content, such as apricots, blueberries, dates, grapes, or cherries, or overripe items, remove the items from the trays when they are almost dry (about three-quarters of the way through the dehydrating process), transfer them to a clean, dry tray, and place them back in the dehydrator.
- If you have a lot of small items such as corn kernels, blueberries, etc., stir them up and move them around a little on the trays halfway through the drying time.
- If you have a humidifier running, turn it off while dehydrating.
- Refrain from canning or boiling large pots of water while dehydrating.
- If it is hot and humid outside, run the air-conditioning or turn on ceiling fans.
- If your dehydrator is completely full with fruits and/or vegetables, kick the temperature up to 135°F for 1 to 2 hours only, then back it down to 125°F.

STORAGE

Properly dehydrated foods can last for years! To maximize shelf life, you must provide your foods with the best possible environment for storage.

There are six environmental enemies of food storage. If you can eliminate them or minimize your food's exposure to them, you will maximize shelf life.

1. Moisture: Moisture creates a playground for bacteria and mold in food. For that reason, you want to make sure that your items are completely dehydrated, meaning that 95% or more of their moisture has been removed. While we can't measure the actual degree of dehydration at home, if you follow the visual, touch, and sound tests we've given you, you can be confident in your own evaluation of each item. And remember Golden Rule #5: You Cannot Overdry. When in doubt, keep drying it out. We promise your food will not turn to dust!

Once the moisture is removed, the next task is to keep away the moisture. There is moisture everywhere, even in the air and on our skin. When we touch our dehydrated foods, they will suck that moisture up instantly, along with the oils on our hands. For these reasons I recommend not leaving your dehydrated items out in the open for extended periods and wearing gloves whenever handling your dehydrated foods, if you intend to put them back into storage.

2. Heat: Exposure to even slightly elevated heat over weeks or months can destroy many of the nutrients in your food! It is recommended that you store your food in a cool, dry place, such as a dry basement. The temperature at which you store your food can not only change its taste, color, and nutritional value, but it can also affect shelf life. A temperature increase of just 10 degrees can take a year off the shelf life of your food.

3. Oxygen: Oxygen is a natural, and powerful, degrading agent. It is involved in a process called oxidation, which alters the chemical structure of items, from sliced apples (browning) to sheets of iron metal (rusting). In food, this alteration will result in a loss of nutrients over time, as well as changing the taste and appearance of the food. Eliminating exposure to oxygen as much as possible when storing dehydrated food will prevent or minimize such degradation; it will also prevent some species of bacteria from growing. To that end, wherever possible vacuum seal your food in heavy-duty vacuum bags. Items that are especially fragile, such as large collard leaves and large eggplant slices, should not be vacuum sealed if you wish to keep them whole, as the vacuum process will break them into pieces. For these items, store in airtight containers with an oxygen pack, which will remove any residual oxygen that may be present. For short-term storage, you can also use glass jars, but don’t forget to add an oxygen pack.

5 STEPS TO SUCCESSFUL STORAGE*

1. Let the food cool for about 3 minutes after being dehydrated.
2. Place the food in ziptop plastic bags or canning jars and seal.
3. Check the items in the next day or two for dryness; if they are not completely dry, toss them back into the dehydrator until dry.

4. When assured that the items are completely dry, place into canning jars with oxygen packs or vacuum seal with an oxygen pack, then double-bag in Mylar bags and heat seal.
5. Label everything with the contents and the date dehydrated.

*This does not include jerky; see page 117 for storage instructions.

4. Microorganisms: Some types of bacteria, mold, and fungi can be harmful to humans, while others contribute to the degradation and decay of food. Practicing sanitary technique in the kitchen prevents the addition of bacteria, and pretreating foods with lemon juice or blanching them in boiling water prior to dehydration removes bacteria as well. The gentle heat of dehydration kills other microorganisms, while removing oxygen through vacuum sealing prevents others from growing. However, the greatest aid to prevention is the removal of moisture. Without moisture, most microorganisms will die, or will stop growing.

5. Light: The energy in light has the ability to alter the chemical structure of many compounds, thus changing the nutritional value and appearance of your foods in a very short period of time. Certain nutrients, such as vitamins A, C, and E, are especially impacted by exposure to light. Double-bagging your vacuum-sealed long-term storage items inside Mylar bags is an effective way to block light, as Mylar is a light-and heat-reflective material.

6. Other pests: Always keep in mind that you're not the only living thing that likes to eat! Rodents and insects can get into your food if it is not stored properly. To prevent this, use good-quality heavy-duty plastic bags or buckets to store your food. Mylar bags are especially tough, impervious to tears even from the hungriest scavenger.

Storage Supplies

For proper storage, you need the proper equipment and supplies.

Weight scale: If you choose to measure your prepackaged dehydrated items by weight instead of volume, this will be a needed item.

Disposable latex or vinyl gloves: It is important to wear disposable gloves when handling dried food for storage in order to prevent the transfer of oil or moisture from your hands to the food, which can end up resulting in spoilage.

Canning jars with lids: Traveling back and forth to Pennsylvania, I would frequently stop at estate sales. One thing I always had my eye out for were Ball Heritage Blue jars.

In Buffalo, New York, around 1885, the Ball brothers started a canning jar business. In 1890, Ball Jar Company purchased sand from Lake Michigan for their glass. Because of the minerals in the sand and the amount of oxygen that was in the furnace, the glass turned blue.

So what does any of this have to do with dehydrated foods?

Over time light breaks down the nutrients in our food, limiting its shelf life. Being conscientious about keeping light, heat, moisture, and oxygen away from dehydrated items can preserve its quality and extend shelf life. The Ball Heritage Blue jars do not keep all light out, but because of the darker glass they do reflect back much of it.

Because of my Buffalo roots, I am quite partial to the Ball brand jars, but other brands, such as Mason, work just the same. Whatever the brand, it is ideal to use a tinted glass, if available, especially if storing food for longer periods of time.

Make sure to flip your lid: New Ball jar lids will fit most of the Ball Blue jars, so if using old jars be sure to purchase new lids to ensure a good airtight seal. The new lids, however, will not properly fit jars made from 1890 to 1910, but if you do come across those they are worth some money, so don't toss them out! Ball Brothers only made these blue jars from 1890 to 1937, and in 1975–77 they made a limited bicentennial production run. Every so often, Ball will release a limited edition blue jar. They are more expensive than their clear counterparts, but cheaper than the vintage ones.

Plastic buckets and other containers: Plastic 5-gallon buckets with lids make food storage easy. Dehydrated food is practically weightless. After filling a bucket, you can literally lift it with one finger, and stack one on top of another.

Bakeries and donut shops ship their frostings and fillings in 5-gallon buckets, and throw them away when finished. In most cases, if you ask a manager to put these empty buckets aside they will. Simply wash the bucket thoroughly with hot water and dish soap, and dry completely before using.

Make sure all plastic containers that come in contact with your foods are food safe. Containers that are not food safe can leach chemicals, plastics, and dyes into your food when stored long term. A general way to determine if a container

is food safe (or “food grade”) is to look on the container for the recycling symbol (three arrows in a triangle with a number in the center). In general, numbers 1, 2, 4, and 5 are food safe, as well as some containers with the number 7. To be extra certain that your container is food grade, you can check the price tag/label, which will often state “food grade,” or you can contact the manufacturer. The container should also be opaque to deter light. Here is another good rule: If you can see through it, light can get to it. The containers must also have an airtight rubber seal.

Bucket opener: A bucket opener looks like a large plastic wrench and is used to remove the lids from plastic storage buckets with ease. No more breaking nails with this handy tool!

Ziptop plastic freezer bags: Good quality plastic ziptop bags are a necessity when dehydrating. Because dehydrated foods can have sharp edges, opt for the heavier plastic of the freezer-style bags for better protection against punctures. Although I do not recommend them for long-term food storage, they work great for short-term storage of dehydrated items. Keep plenty on hand.

Vacuum sealer and bags: If you decide to become a serious pantry packer, you will want to invest in a quality vacuum sealer. A vacuum sealer, along with specialized vacuum bags, stores your food items in an air-free environment, while also packing the items into a smaller volume. This increases food shelf life and allows for more compact storage. A vacuum sealer is great for use with dehydrated foods, refrigerated fresh foods, and frozen foods.

It’s also great for preserving many nonfood items that you want to protect from water or moisture like medications, soaps, important papers, blankets, or matches. You can even use it to make handy mini emergency packs for your backpack or purse.

I recommend purchasing a high-quality and durable vacuum sealer with dual (or double piston) suction motors, instead of brands that have only one suction motor. Dual motors provide powerful suction, with no need for a cool-down time between sealing.

No matter what kind of vacuum sealer you have, your vacuum bags must be at least 2 ply and 3 millimeters (mil) in thickness. Do not settle for a cheaper product. Even if you are using the most expensive vacuum sealer on the market, if you are using low-quality bags, your storage efforts will be futile. Bags of poor quality do not allow for complete air removal, frequently leak, and easily puncture. If you find your bags do leak, suspect the bags before the sealer. I

recommend channeled (aka embossed, textured, or microchannel) bags of 3 mil or higher thickness. “Channeled” bags contain grooves that allow for streamlined air removal and a tighter seal.

AVERAGE SHELF LIFE

When stored properly, fruits, vegetables, and herbs can be stored between 5 and 20 years.

Mylar bags: These silver bags are made of smooth, durable Mylar material. Their purpose is to reflect heat and light away from the food. By reducing heat and eliminating light, two powerful food-degrading agents, you extend the shelf life of your dehydrated product. Mylar bags also serve as a tough durable outer jacket for vacuum-sealed food, protecting against puncture from external objects or rodents. Mylar bags cannot be vacuum-sealed directly. You must vacuum seal your food in a vacuum bag, and then double-bag it in a Mylar bag, which will then be heat sealed to close (an iron works fine). They are also reusable, making them very effective.

Oxygen absorbers/packs: Oxygen is one of the four agents that you need to keep away from your dehydrated food in order to maintain a long shelf life. I recommend placing oxygen absorbers (aka oxygen packs) in any glass jars or buckets containing dehydrated foods. As the oxygen absorber removes the oxygen from the glass jar you will hear the lid pop down the same way it would with canning. Each time you open the jar you should hear a suction release. When you no longer hear this, it is time to replace the oxygen pack.

Although vacuum sealing removes most of the air from vacuum bags, a small amount of residual oxygen will be present around the creases and crevices of your foods. Placing an oxygen pack in your vacuum bag will remove this oxygen, and further protect and preserve your dehydrated items. Oxygen absorbers are safe and will not cause harm to you or your dehydrated foods.

Oxygen packs are made for use with dry foods and should not be used in liquids. Because the absorbers remove oxygen, you should not let children play

with them.

Oxygen packs come in different sizes:

- A 12-to 24-ounce jar with a lid requires one 100 cc pack.
- A 1-gallon Mylar bag or vacuum bag requires one 100 cc pack.
- A 5-gallon bucket will need one 2,000 cc pack. An oxygen pack should not be placed directly in a bucket; it will cause the bucket to collapse. Rather, put your food in a 5-gallon Mylar bag, insert the oxygen pack, heat-seal the bag, then place it in the bucket.

Desiccant packs: A desiccant pack is different from an oxygen pack in that it removes moisture from containers. Desiccant packs are typically made from silica gel and/or other materials and chemicals. As such, it is important that you make sure the packs are FDA approved for contact with foods and medications prior to use. However, if you follow proper dehydration techniques, placing a desiccant pack in with your food should not be necessary. However, you may wish to use these inside large containers, especially if they are permeable, if you are storing the items in a humid or moist location.

Labels: All items should be labeled and dated. Mylar bags are not transparent, and it is important to keep track of what each bag contains and how long it's been stored. You can write directly on the Mylar; if you do it at the very top of the bags, you can store the bags in a filing cabinet for swift and easy selection. In addition, when you cut the Mylar bag with scissors to open it, you will cut off the old label, so you can reuse and re-label the bag over and over again until it's too small. I recommend stocking items from the back, so that your older items are pushed to the front of your storage shelves for earlier consumption.

Storage Systems

When you start dehydrating, it can seem almost impossible for it to take over your pantry, let alone your home, because it is such a space saver. However, dehydrating can become somewhat addictive. The next thing you know, you're trying to dehydrate anything that is not nailed down! So here are a couple storage tips for when you find yourself knee deep in vacuum-sealed bags of dehydrated food:

- Try using a shelf system. Since dehydrated food is virtually weightless, any kind of shelving unit will handle the load. Just place the bags like you would books on a book shelf. Don’t forget to date and label your bags.
- Try using plastic totes. Plastic totes are great because they stack on top of each other and are waterproof, rodent proof, and insect proof. Using these totes also makes it easy to categorize your product. Don’t forget to date and label your bags as well as your totes.

WHAT COULD GO WRONG?

Dehydrating is a simple process but you can sometimes run into problems. Here are some common ones, with suggested solutions.

The outside of the food is hard but the inside is still moist: Called *case hardening*, this can occur if the temperature used to dehydrate is too high. The outside of the food quickly hardens, trapping moisture inside. When this happens, the moist food will sour, become rancid over time, and have to be thrown away. Case hardening is most common with potatoes, but can occur in any item. Once dehydrated, potatoes should be translucent in the center. If case hardening has occurred, the center will be more opaque, and over time may even become black. The center may also appear thicker than the rest of the item. If you suspect case hardening, simply snap the item in half and look for moisture inside.

To try to fix case hardening, cut the pieces in half or put a slit in the top of each piece before placing them back in the dehydrator. This will allow the trapped moisture to escape. For sliced potatoes with case hardening, I simply poke them with a sharp knife and put them back in the dehydrator. It is very difficult to rescue small cubes of case-hardened potatoes; in that case, my recommendation would be to cook them up and eat them. Case-hardened items can still be rehydrated, cooked, and eaten, but you do not want to store them long term.

Dehydrated items stored in jars start to feel tacky: This is caused when the lid has been left off for a period of time. Sometimes when using items from jars, we tend to get caught up in our cooking and forget to check that the lids have been properly closed. If it is very humid in the kitchen, the dehydrated items will absorb ambient moisture; it will not be immediately noticeable but rather the tackiness will become apparent a day or two after resealing the jar. As long as

you do not see any mold growing, simply toss the items back in the dehydrator for 2 to 3 hours to eliminate the moisture.

Dehydrated white potatoes turn black or gray: This happens when an uncooked or partially cooked potato is dehydrated. As awful as they look, they are safe to eat. For a prettier dehydrated potato, cook it all the way through before dehydrating.

Dehydrated white mushrooms turn black: If the mushrooms you dehydrate are not fresh or have been soaked in water or gotten wet prior to dehydration, they will turn an unattractive grayish-black color. For beautiful white mushrooms, only dehydrate the freshest product and simply wipe them with a damp rag to clean, and no more, before dehydration.

But don't throw out those discolored dehydrated mushrooms. Add them to a soup or stew and no one will notice the color difference.

REHYDRATING

The true wonder of dehydration lies in rehydration. Rehydration brings a dehydrated product, which is often very small, shriveled, and hard or brittle, back to its original large, plump, soft self! When you rehydrate, you are adding back the water you removed in dehydration because you are ready to eat or cook with the ingredient. There are several methods for doing this.

Quick soak: Some items require only a brief dip in boiling water to rehydrate. For example, Dehydrated Apple-Potato Cakes (page 135) need only to be dipped in boiling water for less than 10 seconds before placing them in a hot frying pan to heat through and crisp up. This is also the case with greens like spinach and collard greens.

15-minute soak: Most dehydrated fruits and vegetables require a only a soak of 15 minutes or more in a covered bowl of boiling water to rehydrate prior to their use in a recipe. To save time, this can be done while you prep other parts of the recipe.

Rehydration by refrigeration: This method is great to use when you want your dehydrated ingredients ready to go when you get home from work. Place 1½ cups of a dehydrated sliced item such as beets, apples, peaches, or zucchini in a 24-ounce canning jar. (If using small or chopped items such as peas, corn kernels, or onions, use about ⅔ cup of the dehydrated item.) For dehydrated vegetables, fill the jar to the top with boiling water. For dehydrated fruits, fill to

the top with lukewarm water, fruit juice, or a spiced water. For the vegetables, after the water cools, place the jar in the refrigerator for 24 hours (put fruit immediately into the fridge). The rehydrated items are a delicious snack right out of the jar. If you rehydrate cucumber spears or chips or other vegetables in brine this way, you will have the easiest pickles ever—crunchy, cold, and ready to eat the next day! See page 291–92 for some of my favorite pickle recipes.

In all of my recipes calling for dehydrated ingredients that require rehydration before being added, I tell you specifically how to rehydrate them.

Now that we have gone over the basics of dehydrating, you are ready to dive right in and start dehydrating. So, what will be your first dehydrated item? In the following chapters we will not only walk you through the step-by-step process of whichever item you choose to dehydrate, but we will also give you plenty of recipes to use your dehydrated items. Now, preheat that dehydrator and let’s get started!!

4

Dehydrating Fruits & Nuts, A–Z

In this chapter you will find specific guidelines for dehydrating most any fruit you can think of, as well as special drying instructions for nuts and seeds.

In many of the references I have consulted over the years, the recommended temperature for dehydrating fruit is 135°F. My experience, however, is that this temperature is simply too high. I have found that a slightly longer drying time at 125°F is optimal for most fruit. Nuts should be dehydrated at 100°F.

SAY NO TO AVOCADO

Because of its very high oil content, the avocado is not recommended for dehydration, as dehydrated avocados will go rancid very quickly.

DEHYDRATING FROZEN FRUITS

The same fruit dehydrated will last 10 to 15 times longer than frozen. So if your supermarket is running a great sale on frozen fruits, buy them up—but instead of putting them in the freezer when you get home, crank up the dehydrator.

The beauty of dehydrating frozen fruits is that, pretty much without exception, all the prep work has been done for you. (You'll want to slice frozen whole strawberries before dehydrating them. Run cool water over them for just a few seconds, place on a cutting board, and slice as desired.) Simply open the bag and

spread the frozen items onto the dehydrating trays. Dehydration time will depend on the item and the size of the cut. In general, frozen foods will have approximately the same drying time as their fresh counterpart.

DEHYDRATING CANNED FRUITS

Canned fruit can be drained and pureed to make quick fruit leathers (see page 86), minus adding the corn syrup called for in the recipe if the fruit is packed in syrup.

However, I am not a proponent of doing this. Through the canning process, these foods have lost a lot of their nutrients. Also, most canned items contain a large amount of salt, which means, if dehydrated, they will take a lot longer to rehydrate.

Crazy Fruit

The entries that follow address dehydrating a single fruit at a time. Crazy Fruit are thin fruit chips made up of multiple fruits and we love them at our house! To make Crazy Fruit, use a mandoline, meat slicer, or food processor to very thinly and evenly slice the fruits of your choice, then spray them lightly with lemon juice or an ascorbic acid solution. On the dehydrator tray, pile different fruit slices on top of each other, in stacks of two or three. If you like, sprinkle a little colored sugar on top to add more pizzazz! Then dehydrate (use the timing for the fruit that takes the longest); the fruit slices will fuse together, creating a one-of-a-kind treat that the whole family will go “crazy” for!

Here are a few of my favorite combinations to get you started:

- Mango and honeydew melon
- Kiwi and strawberry
- A lengthwise banana slice topped with a thin wedge slice of cantaloupe, sprinkled with chopped maraschino cherries
- Watermelon and apple
- Cucumber and strawberry
- Pineapple and banana, sprinkled with shredded coconut

STORING DEHYDRATED FRUITS AND NUTS

For optimal long-term shelf life, fruits and nuts should be completely dehydrated and stored so as to prevent contact with oxygen, moisture, light, high heat, and insects/rodents. If you are unsure if the item is dehydrated, follow the dryness test provided in every entry for each particular fruit. Once completely dried, most items should be vacuum-sealed in vacuum bags along with an oxygen pack to remove any residual oxygen, and then double-bagged in Mylar to protect them from sunlight, heat, and insects.

APPLES

If you're lucky enough to find yourself with a bushel of apples, consider prepping them for dehydration in multiple ways, according to how you might end up using them. Apple chips make a delicious snack as is. Use dehydrated apple slices in pies and crisps; chopped apples are perfect for use in soups, salads, side dishes, and stuffings; and shredded apples can be added to gelatin, cakes, muffins, pancakes, and much more. If you prefer your apples peeled, you can still make use of that beautiful apple skin; dehydrate the peels, then powder them and use to add to teas or potpourri or to sprinkle on top of muffins. You can even dehydrate whole apples for use as doll heads! And if you love your applesauce, I recommend you make it first, then dehydrate it.

Dehydrating temperature: 125°F

Preparation: Wash with soap and water, especially if you intend to dehydrate the peelings. Have a spray bottle of lemon juice or ascorbic acid solution on hand.

Apple chips: Core and, leaving the peel on, cut across into ⅛-inch-thick slices. Spray lightly with lemon juice and sprinkle with sugar and/or ground cinnamon, cloves, or allspice. Spread evenly on dehydrator trays and dehydrate for 10 hours.

Apple slices: Core, then peel and cut across into ¼-inch-thick slices. Cut the slices in half. Lightly spray with lemon juice, spread evenly on dehydrator trays, and dehydrate 10 to 12 hours.

Chopped or cubed apples: Core, then peel the apples. Working with one apple at a time, place it in a food processor or vegetable chopper and chop or

cube. Lightly spray with lemon juice, spread evenly on dehydrator trays, and dehydrate 10 to 12 hours. When dehydrated, chopped or cubed apples develop a hard outer coating and will click when dropped on the counter. They will not stick if squeezed together in your hand.

Shredded apples: Core, then peel the apples. Working with one apple at a time, place it in a food processor and shred. (You can also do this by hand using the largest holes on a box grater.) Lightly spray with lemon juice, spread evenly on dehydrator trays, and dehydrate 10 to 12 hours.

Apple peels: Spray apple peels with lemon juice, pile on dehydrator trays, and dehydrate 10 to 12 hours.

Dryness test: Unless otherwise indicated, the dehydrated product should be brittle, feel dry to the touch, and snap in half easily.

Storage: See Storing Dehydrated Fruit (page 27).

Tips

- You will obtain a better end product if you start with a firmer apple, not one that is overripe.
- The sweeter the apples, the more pliable the dehydrated product will be because of the elevated sugar content.
- Over-ripened apples work great in leathers.

APRICOTS

You can dry apricots with or without their skin—your choice. If you know that you are going to eventually puree the fruit, dehydrating them without their skins makes sense.

Dehydrating temperature: 125°F

Preparation: Have a spray bottle of lemon juice or ascorbic acid solution on hand.

Halved, skin on: Using apricots with the skins on is great for preparing many different dishes. The skins are soft and edible and it is not necessary to remove them. Blanch apricots in a large pot of boiling water for 30 seconds only. Remove from the pot with a slotted spoon or strainer, and place in a bowl full of ice water. Cut apricots in half, remove the kernel, lightly spray with lemon juice, and place on the dehydrator tray skin side down. Dehydrate 12 hours, then, wearing disposable gloves, push each apricot inside out, return it to the tray (skin side down), and dehydrate for another 12 hours.

Halved, peeled: Blanch the apricots in a large pot of boiling water until the skins blister, which should only take about 1 minute. Remove from the pot with a slotted spoon or strainer and place in a bowl full of ice water. Slide the skins off the fruit, and then cut in half and remove the kernel. Spray with lemon juice, arrange spread on dehydrator trays, and dehydrate for 12 hours.

Dryness test: Should feel dry like paper and be flexible.

Storage: See Storing Dehydrated Fruit (page 27). If you want to store your apricots chopped and ready to add straight to a recipe, chop them after dehydration, then add ¼ cup granulated sugar per 1-quart jar and shake; this will keep the small pieces from sticking together.

BANANAS

When prepping bananas for the dehydrator, you can slice them ⅛ inch thick for chips (great for snacking as is, added to granola, or to use to make smoothies or pies) or ¼ inch thick. I like to rehydrate and fry the thicker slices or dip them as is into chocolate.

Dehydrating temperature:125°F

Preparation: Have a spray bottle of lemon juice or ascorbic acid solution on hand.

Banana chips: Peel the banana and cut across into ⅛-inch-thick slices. Lightly spray with lemon juice, spread on dehydrator trays, and dehydrate for 10 hours.

Banana slices: Peel the banana and cut in half lengthwise. Cut across into ¼-inch-thick slices. Lightly spray with lemon juice, spread on dehydrator trays, and dehydrate for 12 hours.

Dryness test: Should be brittle, feel dry to the touch, and snap in half easily.

Storage: See Storing Dehydrated Fruit (page 27).

Tips

- For a crisp banana chip, do not use bananas that are too ripe; I recommend using ones that still have a little green on the peel.
- Bananas will discolor if you don’t cut them with a stainless steel knife or blade.
- Make sure not to let the banana slices overlap one another on the dehydrator tray, otherwise they will fuse together.

BLACKBERRIES & RASPBERRIES

Have these on hand to add to yogurt, pies, muffins, and more.

Dehydrating temperature: 125°F

Preparation: If you don't have to rinse your berries off, then don't. If you do need to rinse them, it is important that you *air-dry* them completely before dehydration. You can do this by using a small fan, or your dehydrator set to Cool. If you place wet berries in a hot dehydrator, they will flatten like pancakes. Line the berries up in rows on the dehydrator trays, with the pointed apex of the berry facing up; they will look like rows of little traffic cones. Dehydrate for 18 to 20 hours.

Dryness test: You can easily crush a berry into powder with your fingers.

Storage: See Storing Dehydrated Fruit (page 27).

Tip

When dehydrating frozen blackberries or raspberries, line the dehydrator tray with a drying sheet, in case there is bleeding.

BLUEBERRIES

Dehydrated blueberries are a wonderful addition to muffins, pancakes, granola, and your morning yogurt.

Dehydrating temperature: 125°F

Preparation: Place the blueberries in a large strainer and dip the strainer into a large pot of boiling water for 30 seconds. Remove and dip the strainer into a large bowl of ice water until the berries cool. Shake to remove as much water as possible. Pour the blueberries onto a rimmed baking sheet and arrange so they are not touching; place in the freezer until frozen, which will take about 2 hours. Arrange the frozen blueberries on dehydrator trays and dehydrate for 12 hours; check your blueberries. Some will appear swollen and plump like small balloons; use a toothpick to prick them, then dehydrate another 12 hours.

Dryness test: Dehydrated blueberries develop a hard outer coating and will click when dropped on the counter. The berries should not stick together when squeezed in your hand.

Storage: See Storing Dehydrated Fruit (page 27).

Tips

- Freezing the blueberries speeds up their dehydration time but isn’t a necessary step. Just be aware they’ll take a lot longer to dry.
- If you are dehydrating store-bought frozen blueberries, line the dehydrator tray with a drying sheet.
- If you plan to dehydrate blueberries with other items at the same time, place them on the bottom tray so they do not bleed blueberry juice on your other foods.

CHERRIES

Dehydrated cherries are wonderful to have on hand to add to pies, breads, muffins, and fruit salad.

Dehydrating temperature: 125°F

Preparation:

Fresh cherries: Place the cherries (leave any stems on) in a strainer and dip the strainer into a large pot of boiling water for 30 seconds. Remove and dip the strainer into a large bowl of ice water until the cherries cool. Drain, then remove the stems and pits, and lightly spray with lemon juice or an ascorbic acid solution. Spread, skin side down, on dehydrator trays and dehydrate for 24 hours.

Jarred Maraschino cherries: Pour the cherries into a strainer set over the sink and rinse under cool running water. Drain on paper towels. Break the cherries in half and place on dehydrator trays. Dehydrate for 10 to 12 hours.

Dryness test: Dehydrated cherries develop a hard outer coating and will click when dropped on the counter. The cherries should not stick together when squeezed in your hand.

Storage: See Storing Dehydrated Fruit (page 27). If you want to store your cherries chopped, chop them in a food processor after dehydration, then add ¼ cup granulated sugar per 1-quart jar and shake; this will keep the small pieces from sticking together.

Tip

Leave the stems on cherries when blanching them. They serve as little plugs, keeping valuable cherry juices from leaking out into the pot. Remove the stem during pitting.

CITRUS FRUITS

All citrus fruits (lemons, limes, oranges, grapefruit, and kumquats) can be handled in a similar manner when it comes to the dehydrator. You can dehydrate them with their peels on (citrus chips make a lovely garnish floated in a pitcher of water or iced tea) or off (powder the dried slices to make lemonade or a piquant sauce). Citrus peels and zest can be dehydrated on their own for use in potpourri and all sorts of savory and sweet preparations.

Dehydrating temperature: 125°F

Preparation: Wash thoroughly if dehydrating slices with peel on or the zest separately.

Citrus chips, with peel: Cut across into ⅛-inch-thick slices. Spread evenly on dehydrator trays and dehydrate 8 to 10 hours.

Citrus chips, peeled: Peel the fruit and set peelings aside to be dehydrated separately. Pull away every bit of the woolly white pith. Slice citrus crosswise ¼ inch thick and then into chunks, if desired. If you want to dehydrate wedges, take a sharp knife and completely cut away the outer membrane of the citrus fruit (except for kumquats). Then, cutting into the fruit, cut the wedge away from the membrane that would hold the section together on each side. Do this over a bowl to catch the juice and the wedges as they fall away. Spread the slices, chunks, or wedges on dehydrator trays and dehydrate 10 to 12 hours.

Peel or zest: If the citrus has a thin layer of pith, you may place the entire peeling on a dehydrator tray. If the pith of the fruit is thick, before peeling, remove just the zest by grating it. Using a microplane makes this very easy. Spread the zest on a drying sheet set in a dehydrator tray. Dehydrate the zest for 4 hours and peelings 10 to 12 hours. If you want to use the dehydrated peeling for zest, coarsely grind it in a blender.

Dryness test: Should be brittle, feel dry to the touch, and easily snap in half.

Storage: See Storing Dehydrated Fruit (page 27).

Tips

- Over time dehydrated citrus fruits will darken in color. This is a normal process and the foods will regain their proper color when rehydrated.
- If dehydrating slices with the rind attached, choose a fruit with thin pith (the white and bitter area between the rind and pulp). Fruit with a thick layer of pith should be peeled prior to dehydrating.

COCONUTS

Dehydrating fresh coconut at home is a great way to save money and get a healthier product. Store-bought shredded coconut is often pressed to remove oils in order to speed the drying process, and is exposed to chemicals and high heat. Though you can sometimes find frozen unsweetened coconut, it is typically sold sweetened (with the addition of corn syrup) in the baking aisle.

Chopped dehydrated sliced coconut is great to use in parfaits, crackers, granola, cakes, and pies. Use dehydrated shredded coconut as you would store-bought.

Dehydrating temperature: 125°F

Preparation: On the shell of a coconut are three round indentations (“eyes”) that resemble finger holes on a bowling ball. Use a screwdriver and hammer to puncture the three holes. (Please be careful!) Tip the coconut upside down over a cup to drain the coconut water, and set aside to be used for coconut leather; refrigerate or freeze it if you won’t be using it immediately. With the hammer, tap the shell until it cracks into several pieces. Use a flexible frosting knife as a wedge to pry the coconut meat from the shell. Place the pieces of coconut in a food processor and either shred or slice them, whichever you prefer. Line the dehydrator tray with a drying sheet and evenly spread the coconut on top. Dehydrate for 10 hours.

Dryness test: Should be brittle, feel dry to the touch, and easily snap in half.

Storage: See Storing Dehydrated Fruits (page 27).

Tips

- If you like, you can dehydrate store-bought dried coconut (sweetened or unsweetened), which will extend its shelf life. Line a dehydrator tray with a drying sheet, spread the coconut over it, and dehydrate for 8

hours. Your final product with be crunchy and crispy, a great sweet snack to eat as is or sprinkle over the top of yogurt and desserts!

- Many recipes that use coconut call for toasting it. You can have ready-made toasted coconut at your fingertips! Once you've sliced or shredded the fresh coconut, spread it over a rimmed baking sheet and bake in a preheated 350°F oven until golden brown, 10 to 15 minutes. Then proceed with dehydrating as directed. You can also toast store-bought coconut before dehydrating.
- After dehydrating fresh coconut, you can return it to the food processor to achieve a finer texture, if desired, before storing it.

CRANBERRIES

Cranberries dehydrate quickest when chopped but it's also nice to have dehydrated whole cranberries on hand to make a traditional whole-berry cranberry sauce or for use in a pie. Store-bought dried cranberries are also a candidate for the dehydrator!

Dehydrating temperature: 125°F

Preparation: Pick over fresh cranberries for any stems. Rinse well under running water and drain on paper towels.

Chopped cranberries: Place the cranberries in a blender or food processor and chop. Once evenly chopped, spread on dehydrator trays and dehydrate 8 to 10 hours.

Whole cranberries: Place the cranberries in a strainer and dip the strainer into a large pot of boiling water until their skins crack open. The cracking of the skins makes a slight popping noise and the white center of the cranberry will become visible. Remove immediately and plunge the strainer into a large bowl of ice water. When the berries are cool, shake off as much water as possible, spread on dehydrator trays, and dehydrate 12 to 15 hours.

Dried cranberries: Store-bought sweetened dried cranberries (such as Craisins) can be dehydrated to extend their shelf life. Spread on dehydrator trays and dehydrate 8 to 10 hours. When dehydrated, they will no longer feel sticky or moist, and if you squeeze a handful of them together, they won't stick together.

Dryness test: Unless otherwise indicated, you can easily crush the berries into powder between your fingers.

Storage: Dehydrated whole cranberries are fragile, so do not vacuum seal them. However, dehydrated chopped cranberries are not as fragile because they are not blanched; therefore they can be vacuum sealed. Place in ziptop plastic freezer bags and seal, trying to get as much air out as possible, then double-bag inside a Mylar bag, or store in a canning jar with a lid and oxygen pack. Dehydrated store-bought dried cranberries can be vacuum sealed, but they will stick together. When you are ready to use them, they can be pulled

apart easily.

DATES

Because of their high sugar content, dates take a long time to dehydrate, even if you start with store-bought dried dates. Dehydrating dried dates will significantly extend their shelf life.

Dehydrating temperature: 125°F

Preparation:

Fresh dates: Place the dates in a strainer and dip in a pot of boiling water until their skins blister, then plunge into a large bowl of ice water until the dates are cool. Drain, cut the dates in half, and remove the pits. Arrange the dates on dehydrator trays, skin side down. Dehydrate for 24 hours. Wearing disposable gloves, cut the dates into smaller pieces with clean kitchen scissors, spread evenly over clean dehydrator trays, skin side down, and dehydrate for another 24 hours.

Halved dried dates: Cut store-bought dried dates in half, place them skin side down on dehydrator trays, and dehydrate 48 hours.

Chopped dried dates: Cut dried dates in half, place them skin side down on dehydrator trays, and dehydrate for 24 hours. Wearing disposable gloves, chop the halves into small pieces, spread over the trays, and dehydrate another 24 hours. When dehydrated, chopped dates develop a hard outer coating and will click when dropped on the counter. They will not stick together when squeezed in your hand.

Dryness test: Unless otherwise indicated, should feel dry like paper and be flexible.

Storage: See Storing Dehydrated Fruit (page 27). However, when storing dehydrated dates in canning jars, over time they can get sticky because of their high sugar content. If that happens, you can add ¼ cup granulated sugar per 1-quart jar and shake. This will eliminate the stickiness.

Tip

See the recipe for date sugar on page 167.

DRAGON FRUIT

Dragon fruit is a beautiful fruit, with a bright pink skin and white flesh studded with small black seeds. If you're lucky enough to find it in your area, buy them up. When dehydrated, dragon fruit tastes and crunches just like a Rice Krispy treat. It's also wonderful added to gelatin.

Dehydrating temperature: 125°F

Preparation: Wash fruit thoroughly, slice ¼ inch thick, spread on dehydrator trays, and dehydrate for 10 hours.

Dryness test: Should feel dry like paper, be flexible, and tear easily.

Storage: See Storing Dehydrated Fruit (page 27).

Tip

Leaving the skin on the fruit helps to hold the slices together.

FIGS

If you have a fig tree, the dehydrator will be your salvation when all that fruit comes ripe at the same time!

Dehydrating temperature: 125°F

Preparation:

Fresh figs: Wash the fruit thoroughly and remove any stems. Cut into quarters, wedges, or thin slices, as you prefer. Place quartered figs skin side down on dehydrator trays. If thinly sliced or in wedges, arrange, without much overlapping, on the trays. Dehydrate for 18 hours. When dehydrated, fresh

figs should be hard and feel dry, but still be somewhat flexible.

Dried figs: Dehydrating dried figs will extend their shelf life. Cut in halves or quarters, place on dehydrator trays, and dehydrate for 10 hours. When dehydrated, dried figs should be leathery but still somewhat pliable.

Storage: See Storing Dehydrated Fruit (page 27). However, when storing dehydrated figs in canning jars, over time they can get sticky because of their high sugar content. If that happens, you can add ¼ cup granulated sugar per 1-quart jar of figs and shake. This will eliminate the stickiness.

Tips

- When cutting figs into thin slices, a meat slicer, mandoline, or food processor works well. Otherwise, be sure to use a very sharp knife.
- Do not remove the skin from figs.

GRAPES

Dehydrated fresh grapes are not the same as raisins; when fresh grapes are dehydrated, they become hard and crunchy, with none of the chewiness of raisins. That said, you can use dehydrated fresh grapes and raisins interchangeably in recipes. If you grow your own grapes, try drying the leaves as well and use them crushed in teas or as a wrap.

Dehydrating temperature: 125°F for grapes, 100°F for leaves

Preparation:

Fresh grapes: Working with one cluster of grapes at a time, blanch them in a large pot of boiling water for just less than 1 minute. Remove and let cool enough so you can handle them. Remove the grapes from their stems and spread over dehydrator trays. Dehydrate for 18 hours and transfer the partially dehydrated grapes to clean, dry dehydrator trays. Dehydrate for another 6 hours. Dehydrated grapes develop a hard outer coating and will click when dropped on the counter. They should not stick together when squeezed in your hand.

Raisins: Dehydrate store-bought raisins to extend their shelf life. Spread on dehydrator trays and dehydrate 10 to 12 hours. When dehydrated, raisins should not feel sticky or moist, and they should not stick together when squeezed in your hand.

Grape leaves: Wash the leaves and pat dry, then lay flat on dehydrator trays. Dehydrate 8 to 10 hours. The dehydrated leaves should be brittle, feel dry to the touch, and crumble easily.

Storage: For dehydrated grapes and raisins, see Storing Dehydrated Fruit (page 27). The dehydrated leaves are fragile, so do not vacuum seal unless you plan to crush them for tea. Place in ziptop plastic freezer bags and then double-bag inside a Mylar bag, or store inside a canning jar with a lid and oxygen pack.

Tips

- Leave grapes on their stems when blanching; this will preserve the juice within the grapes.
- Transferring the grapes to a clean tray three quarters of the way through dehydrating them keeps them from sticking and speeds up the process.
- You can use grape leaves in savory recipes but the ground dehydrated leaves make a nice tea.

KIWI FRUIT

Dried kiwi slices are a wonderful addition to salads and smoothies; I also love to include them in Crazy Fruit (page 27).

Dehydrating temperature: 125°F

Preparation: With a paring knife or vegetable peeler, peel the kiwis and slice as thinly as you can. Lightly spray with lemon juice or an ascorbic acid solution, spread on dehydrator trays, and dehydrate for 12 hours.

Dryness test: Should feel dry like paper, be flexible, and tear easily.

Storage: Dehydrated kiwi slices are fragile, so do not vacuum seal. Place in ziptop plastic freezer bags and seal, trying to remove as much air as possible. Double-bag inside a Mylar bag, or store inside a canning jar with a lid and oxygen pack.

Tips

- Having a meat slicer or a mandoline can make short work of slicing kiwi; both tools will also allow you to cut the kiwi paper-thin.
- Fun fact: Fresh kiwi contains an enzyme that makes it impossible to use with gelatin. Once it’s dehydrated, though, it works fine!

MANGO

Mangoes are great for snacking or using in salads, gelatins, cakes and smoothies.

Dehydrating temperature: 125°F

Preparation: Peel the mango; then, from top to bottom, cut the flesh off the large, flat seed on both sides. Cut the large pieces into wedges, or thinly slice

if making mango chips, or chop. Lightly spray with lemon juice or an ascorbic acid solution. Spread on dehydrator trays and dehydrate 10 to 12 hours.

Dryness test: Should feel dry like paper, be flexible, and tear easily.

Storage: See Storing Dehydrated Fruit (page 27).

Tip

You can also dehydrate the peel of the mango to use in tea (see my recipe for Tropical Tea on page 111). Spread the peel on the dehydrator tray, skin side down, and dehydrate 8 to 10 hours.

MELONS (Cantaloupe, Honeydew, And Watermelon)

Dehydrated melon slices make a great snack—if you dry them in long, thin wedges, the consistency is almost exactly like that of fruit leather. They're also a tasty addition to salads and parfaits.

Dehydrating temperature: 125°F

Preparation: Cut the melon in half or wedges (however it's easiest to work with and depending on what size slices you want). Remove the seeds, then cut the flesh from the rind. (If working with watermelon with seeds, you can remove them or leave them in; it's up to you.) Cut the melon into ¼-inch-thick slices, spread on dehydrator trays, and dehydrate for 16 hours.

Dryness test: Should feel dry like paper, be flexible, and tear easily.

Storage: See Storing Dehydrated Fruit (page 27).

NECTARINES & PEACHES

Have these on hand to add to fruit salad, granola, or yogurt, or to use in pies or cakes.

Dehydrating temperature: 125°F

Preparation: Peel before slicing. If the skin won't come off easily, blanch the fruit in boiling water until the skin blisters, about 1 minute. Remove from the water using a slotted spoon or strainer and transfer to a bowl full of ice water. When cool enough to handle, slip the skins off. Cut into ½-inch-thick or less slices and lightly spray with lemon juice or an ascorbic acid solution. Spread on dehydrator trays and dehydrate 12 to 14 hours.

Dryness test: Should feel dry like paper and be flexible.

Storage: See Storing Dehydrated Fruit (page 27).

Tip

Soft nectarines and peaches are perfect for making fruit leather. Use firmer fruit when you intend to use it in pies or to add to yogurt.

NUTS AND SEEDS

If you buy nuts/seeds in bulk from the store, you know they can go rancid if they're not stored in the refrigerator or freezer. When dehydrated, you can store them long term at room temperature. See page 34 for coconuts and page 78 for water chestnuts.

Dehydrating temperature: 100°F

Preparation:

Raw nuts and seeds: Cover the nuts or seeds with warm water and let soak for at least 8 hours and up to 24 hours. If you'd like your nuts/seeds to be salted, you can add salt to the soaking water; this will also aid in removing phytic acid. Drain, then spread the nuts/seeds on a drying sheet set in a dehydrator tray, and dehydrate for 24 hours.

Bulk nuts and seeds: Much of the nuts and seeds that you would buy at the grocery store in bulk have already been soaked, then dried or roasted. For long-term storage, we still recommend you dehydrate them to remove any remaining moisture, which can take up to 12 hours.

Dryness test: Should have a good crunch when you bite down on them.

Storage: See Storing Dehydrated Fruits and Nuts (page 27).

Tip

We recommend soaking raw nuts and seeds like pumpkin and sunflower before dehydrating them. Certain compounds that naturally form on the surfaces of seeds and nuts, such as phytic acid, bind to and prevent the absorption of important minerals like iron, zinc, calcium, and magnesium. Protein absorption may also be interfered with by certain enzyme inhibitors present on the seeds' surface. Soaking the seeds and nuts will help to gently remove some of these "anti-nutrients."

OLIVES

Dehydrating cured olives allows you to keep on hand longer and ready at a moment's notice types of olives that might not be available canned.

Dehydrating temperature: 125°F

Preparation: Drain the olives and spread on dehydrator trays. Dehydrate 10 to 12 hours.

Dryness test: Should feel dry like paper and be somewhat flexible but will snap if bent in half.

Storage: See Storing Dehydrated Fruit (page 27).

Tips

- Because olives are high in oil content, they are not recommended for long-term storage, even when dehydrated. Storage life is about 1 year.
- You can dehydrate whole olives, but they must be pitted.

PAPAYA

Dehydrated chopped papaya makes a great snack on its own, and is a tasty addition to any trail mix. Steam papaya prior to dehydrating if you plan to use it for baking or with gelatin. Dehydrated raw papaya is preferable for use in salads or snacking.

Dehydrating temperature: 125°F

Preparation: Peel the papaya and clean out the seeds, then chop or slice as desired. If you know you will be using the papaya with gelatin or in baking, steam it over boiling water for 1 to 2 minutes. Otherwise, lightly spray with

lemon juice or an ascorbic acid solution, spread on dehydrator trays, and dehydrate 12 to 14 hours.

Dryness test: Dehydrated steamed papaya develops a hard outer coating, will click when dropped on the counter, and will be dark red-orange in color. Pieces should not stick together when squeezed in your hand. Dehydrated raw papaya should feel dry like paper, be somewhat flexible, and will be a dull peach color.

Storage: See Storing Dehydrated Fruit (page 27).

Tip

If you are planning on using your dehydrated papaya with gelatin, you must steam it prior to dehydration or the gelatin will not set. Like pine - apple, papaya contains an enzyme that digests proteins, including those that give gelatin its structure. By cooking it briefly, you denature (deactivate) this enzyme.

PEARS

Prepare pears according to how you think you might be using them: pear chips are great for snacking on as is and used as a garnish; use rehydrated sliced pears in pies, cakes, and salads; chopped pears work great in muffins and gelatin; and I like to use shredded pears when making quick breads.

Dehydrating temperature: 125°F

Preparation: Have a spray bottle of lemon juice or ascorbic acid solution on hand.

Pear chips: Wash the fruit thoroughly. Without peeling or coring, slice the pears across into ⅛-inch-thick disks. Lightly spray with lemon juice or an ascorbic acid solution, spread evenly on dehydrator trays, and dehydrate 10 to 12 hours. When dehydrated, pear chips are brittle, feel dry to the touch, and will snap in half.

Pear slices: Peel the pears and cut across into ¼-inch-thick slices. Cut the slices across to make half moons. Lightly spray with lemon juice, spread evenly on dehydrator trays, and dehydrate 10 to 12 hours. When dehydrated, pear chips are brittle, feel dry to the touch, and will snap in half.

Chopped or cubed pears: Peel the pears, and place the pear whole in a food processor or vegetable chopper to chop or cube. Lightly spray with lemon juice, spread evenly on dehydrator trays, and dehydrate 10 to 12 hours. When dehydrated, chopped pears feel dry like paper and the pieces are somewhat flexible.

Shredded pears: Peel the pears. Place the pear whole in a food processor and shred. Lightly spray with lemon juice, spread evenly on dehydrator trays, and dehydrate 10 to 12 hours. When dehydrated, shredded pears feel dry like paper and the pieces are somewhat flexible.

Storage: See Storing Dehydrated Fruit (page 27).

PINEAPPLE

Unless you're planning only to enjoy your dehydrated pineapple as a snack or in powder form (see page 81), for best results you need to steam it before dehydration.

Dehydrating temperature: 125°F

Preparation:

Steamed pineapple: Peel the pineapple; coring is optional. Slice, cube, chop, or shred the pineapple as you prefer. Steam over boiling water the pineapple until bright yellow and tender, 3 to 5 minutes. Spread on dehydrator trays and dehydrate for 12 to 15 hours. When dehydrated, steamed pineapple will develop a hard outer coating, will click when dropped on the counter, and be bright yellow. Pieces of it will not stick together when squeezed in your hand.

Pineapple chips (raw): Peel and core the pineapple. Cut across into paper-thin rings, spread on dehydrator trays, and dehydrate 8 to 10 hours. Dehydrated raw pineapple feels dry like paper, is flexible, tears easily, and is pale yellow in color.

Storage: See Storing Dehydrated Fruit (page 27). However, when stored in canning jars, over time dehydrated steamed pineapple can get sticky (cooking the pineapple elevates its already high sugar content). If that happens, you can add ¼ cup granulated sugar per 1-quart jar of pineapple and shake. This will eliminate the stickiness.

Tip

- Pineapple must be steamed if using in gelatin or the gelatin will not be firm.
- A meat slicer makes easy work of slicing pineapple into chips/rings.

PLANTAINS

Enjoy the dehydrated chips as is for a tasty snack, or rehydrate to use in recipes or fry.

Dehydrating temperature: 125°F

Preparation: Peel the plantains, then cut across into ⅛-inch-thick rounds. Lightly spray with lemon juice or an ascorbic acid solution, spread on dehydrator trays, and dehydrate for 12 hours.

Dryness test: Should be brittle, feel dry like paper, and snap in half.

Storage: See Storing Dehydrated Fruit (page 27).

Tips

- A food processor, mandoline, or meat slicer will make short work of slicing plantains.
- Plantains are denser than bananas; the same size dehydrated plantain chip will be a little heavier than a banana chip.

PLUMS

Plums are great in both sweet and savory recipes.

Dehydrating temperature: 125°F

Preparation: Blanch the plums in a large pot of vigorously boiling water for 30 seconds. Remove with a slotted spoon or strainer and cool in ice-cold water. Slice in half, remove the pit, and lightly spray with lemon juice or an ascorbic acid solution. Lay the halved plums on dehydrator trays, skin side down. Dehydrate for 12 hours; then, wearing disposable gloves, push the

plums inside out. Return them to the dehydrator trays, skin side down, and dehydrate for another 3 to 4 hours.

Dryness test: Should be very dark black-purple in color and feel dry and hard, though still be somewhat flexible.

Storage: See Storing Dehydrated Fruit (page 27).

Tip

Use very ripe plums (no matter the variety) for best results when dehydrating.

POMEGRANATES

Because of the abundance of seeds in pomegranates, the only purpose for dehydrating the inside of the fruit is for use in herbal teas. Otherwise, you can juice pomegranates and combine the juice with fruit purees to make fruit leather (see page 86).

Dehydrating temperature: 125°F

Preparation: Cut the pomegranates in half, and with a spoon remove the seeds and flesh to a bowl. When ready, spread this on a dryer sheet set on a dehydrator tray. Dehydrate for 10 hours.

Dryness test: Should feel hard and dry and the seeds will click when dropped on the counter.

Storage: See Storing Dehydrated Fruit (page 27).

RHUBARB

Rhubarb is primarily used in pies and breads. Our recipe for Orange-Rhubarb Bread (see page 150) is a must-try!

Dehydrating temperature: 125°F

Preparation: Completely trim the leaves away from the rhubarb stalks (the leaves contain high amounts of oxalic acid, which can make you very sick if eaten). Wash the stalks, then cut them into 1-inch cubes and place in a strainer. Dip the strainer in a large pot of boiling water and blanch the cubes for 1 minute. Dip the strainer in a large bowl of ice water, shake to drain, and empty the cubes onto a dehydrator tray. Spread out the cubes and dehydrate 10 to 12 hours.

Dryness test: Dehydrated rhubarb develops a hard outer coating and will click when dropped on the counter. Pieces of it should not stick together when squeezed in your hand.

Storage: See Storing Dehydrated Fruit (page 27).

STAR FRUIT

Dehydrate star fruit? You bet! It's wonderful as is for a snack, and it makes a beautiful garnish. It also looks and tastes wonderful in gelatin.

Dehydrating temperature: 125°F

Preparation: Wash, then cut into thin slices and lightly spray with lemon juice or an ascorbic acid solution. Spread on dehydrator trays and dehydrate for 10 hours.

Dryness test: Should feel dry like paper, be flexible, and tear easily.

Storage: See Storing Dehydrated Fruit (page 27).

STRAWBERRIES

Enjoy dehydrated strawberries as is for snacking or rehydrated in salads, pies, cakes, smoothies, and much, much more.

Dehydrating temperature: 125°F

Preparation: Wash and hull the berries, then cut them in half or into thin slices and lightly spray with lemon juice or an ascorbic acid solution. Spread on dehydrator trays (strawberry halves should be placed cut side up) and dehydrate thinly sliced strawberries for 8 hours, halved strawberries 16 to 18 hours.

Dryness test: Should feel dry like paper and be somewhat flexible.

Storage: See Storing Dehydrated Fruit (page 27).

5

Dehydrating Vegetables, Greens, & Mushrooms, A-Z

Many people recommend a dehydrating temperature of 135°F or more for vegetables. However, it has been my experience that this is too high. For the best finished product, 125°F is optimal for most vegetables, and even lower (110°F) for certain leafier items. Drying longer at a lower temperature will preserve nutrients and prevent burning and case hardening, a particular problem for potatoes.

DEHYDRATING FROZEN VEGETABLES

The same vegetable dehydrated will last 10 to 15 times longer than frozen. So if your supermarket is running a great sale on frozen vegetables, buy them up but instead of putting them in the freezer when you get home, crank up the dehydrator.

The beauty of dehydrating frozen vegetables is that, pretty much without exception, all the prep work has been done for you. (In the case of certain brands of frozen cauliflower or broccoli, I find that the pieces are on the large side. In these cases, run cool water over the top of the frozen item for just a few seconds, place on a cutting board, and slice as desired.) Simply open the bag and spread the frozen items onto the dehydrating trays. Dehydration time will depend on the item and the size of the cut. In general, frozen foods will have approximately the same drying time as their fresh counterpart.

DEHYDRATING CANNED VEGETABLES

You can dehydrate store-bought canned vegetables and beans by simply draining off the packing water and placing the items on dehydrator trays.

However, I am not a proponent of doing this. Through the canning process, these foods have lost a lot of their nutrients or those nutrients have been transferred to the liquid the produce is packed in, which for vegetables gets poured down the drain when you're going to dehydrate them. Also, most canned items contain a large amount of salt, which means, if dehydrated, they will take a lot longer to rehydrate. That said, you'll find a few canned items in this chapter that I think give good results when dehydrated.

STORING DEHYDRATED VEGETABLES

For optimal long-term shelf life, the vegetables should be completely dehydrated and stored so as to prevent contact with oxygen, moisture, light, high heat, and insects/rodents. If you are unsure if the item is dehydrated, follow the dryness test provided in every entry for each particular vegetable. Once completely dried, most items should be vacuum-sealed in vacuum bags along with an oxygen pack to remove any residual oxygen, and then double-bagged in Mylar to protect the items from sunlight, heat, and insects.

SAY NO

There are very few things you can't dehydrate when it comes to produce, but here are two:

- **Lettuce:** There is no value in dehydrating lettuce. The finished product cannot be rehydrated or doesn't have much use or flavor used in its dehydrated state.
- **Sprouts:** We are often asked if it is possible to dehydrate sprouts. You can, but it really doesn't make sense. If you love sprouts, then have plenty of dried beans on hand and keep a sprouting tray going in your kitchen. Wheatberries work well too.

ARTICHOKES

If you've never grown artichokes and live in the right climate, please give them a try. The artichoke is a beautiful plant, plus dehydrating your own is a lot cheaper than buying frozen or canned artichoke hearts.

Dehydrating temperature: 125°F

Preparation: Bring a large pot of water to a boil, add the artichokes, and cook until the leaves are soft and easily removed from the base of the artichoke. The stem can be left on, as it is a part of the artichoke heart. Drain and transfer the artichokes to a large bowl of ice water until cool. Drain again, then remove all the leaves until you reach the center core (heart) of the plant. You may eat the bases of each artichoke leaf as you remove them, but the remainder of the leaf is not edible. When you reach the heart, you will find a fuzzy, hair-like thistle structure on the top of the heart. This is the "choke" of the plant, and is not edible. Use a spoon to scrape it off. Once you expose the heart, lightly spray the entire surface with lemon juice or an ascorbic acid solution, as artichokes will oxidize and brown very quickly once cut. Slice or cube the hearts, spray with lemon juice again, arrange on dehydrator trays, and dehydrate 10 to 12 hours.

Dryness test: Should feel dry like paper and be flexible.

Storage: See Storing Dehydrated Vegetables (page 49).

ASPARAGUS

Asparagus makes a great side dish or is great in soups.

Dehydrating temperature: 125°F

Preparation: Wash, remove the tough end, then boil or steam asparagus just until you can pierce the thick end with a knife; don't let it get mushy. Drain, then plunge into a large bowl of ice water until cool. Cut thick stalks into 1-to 3-inch pieces; thin stalks can be left whole. Spread over dehydrator trays and dehydrate for 12 hours.

Dryness test: Should feel dry like paper and be somewhat flexible.

Storage: See Storing Dehydrated Vegetables (page 49).

Tip

Bend your asparagus and it will automatically snap in the exact spot where the tender part of the stalk meets the tough end.

BEANS, GREEN AND YELLOW

These beans are great for casseroles, soups, and side dishes.

Dehydrating temperature: 125°F

Preparation: Leave beans whole or cut/french to the desired size, usually between 1 and 4 inches. Boil or steam the beans just until tender. Drain and place in a large bowl of ice water until cool. Drain, spread on dehydrator trays, and dehydrate 8 to 12 hours.

Dryness test: Should feel dry like paper and be somewhat flexible.

Storage: See Storing Dehydrated Vegetables (page 49).

Tip

If you want to french the beans, do that before blanching.

BEANS, SHELL (Black, Kidney, Navy, Pinto, Soy)

Also known as legumes, these are beans that are shelled. Even if you don't grow your own beans or have access to them through a CSA or farmers' markets, you can take advantage of what your supermarket has to offer. Dehydrating canned beans will save valuable storage space. Or you can cook, then dehydrate, store-bought dried beans; they'll take up even less storage space and be already cooked through when rehydrated. For directions on how to dehydrate garbanzo beans (chickpeas), see the entry for Peas.

Dehydrating temperature: 90°F for shelled fresh beans, 125°F for cooked beans, and 135°F for soybeans (to make soy nuts)

Preparation:

Shelled fresh beans: Shell the beans, rinse, spread on dehydrator trays, and dehydrate at 90°F for 24 hours. Dehydrated fresh shell beans develop a hard outer coating and will click when dropped on the counter.

Cooked whole dried beans: Soak dried beans in water and cover for up to 24 hours, depending on the type. Drain, then bring to a boil in a generous pot of fresh water and simmer until tender. Drain, spread on dehydrator trays, and dehydrate at 125°F for 18 hours; they will crack and pop open while dehydrating. When dehydrated, they will feel hard and dry to the touch.

Dried soybeans: Make your own soy nuts! Soak the dried beans in water and cover overnight. Drain, then place in a pot with generously salted water (1 cup soy beans per 5 cups water). Bring to a boil and let boil until tender and swollen, about 2 hours. Drain, then pour the beans into a large bowl of ice water to cool. Drain again and spread over dehydrator trays. Sprinkle with salt and dehydrate at 135°F for 12 hours.

Canned whole beans: Drain the beans, then rinse under cold running water. Spread over dehydrator trays and dehydrate at 125°F for 18 hours; they will crack and pop open while dehydrating. When dehydrated, they will feel hard and dry to the touch.

Storage: See Storing Dehydrated Vegetables (page 49).

Tip

If you dehydrate shelled fresh beans, remember that they will need to be soaked like store-bought dried beans before cooking.

BEETS & BEET GREENS

Beets are a double source of goodness—you can dehydrate both the beet root and the beet greens with great results. Be sure to separate them, though, as they require different timing in the dehydrator.

Dehydrating temperature: 125°F

Preparation: Cut the greens 5 inches from the top of the beet.

Beets: Place the whole beets in a large pot of boiling water and boil until you can easily pierce them with a sharp knife or skewer. Drain and place in a large bowl of ice water to cool, then slide the skins and tops off the beets by rubbing them with your hands (no knife is needed). Slice, cube, chop, shred, or french the beets, spread on dehydrator trays, and dehydrate 12 to 14 hours. Dehydrated beets should feel dry like paper and be somewhat flexible.

Beet greens: Wash the greens well to remove any grit. Spread on dehydrator trays and dehydrate for 8 hours. Dehydrated beet greens will feel dry to the touch; they are also brittle and will easily crumble in your hands.

Storage: For beet root, see Storing Dehydrated Vegetables (page 49). The dehydrated beet leaves are fragile, so do not vacuum seal. Place in ziptop plastic freezer bags and then double-bag inside Mylar or store in a canning jar with a lid and oxygen pack.

BROCCOLI

Dehydrating broccoli allows you to use every bit of the head—even the stalks!

Dehydrating temperature: 125°F

Preparation: Steam or boil heads of broccoli whole just until you can pierce the florets with a sharp knife or skewer; don't let them get soft. The color of the cooked broccoli should be a vibrant green. (Steaming yields a better result than boiling.) Drain, then plunge the broccoli into a large bowl of ice water to cool.

Florets: After cooking, cut the florets off; set the stalks aside. Arrange the florets on dehydrator trays and dehydrate 10 to 12 hours.

Stalks: Continue to boil the stalks until they are very tender. Drain and puree in a blender. Line the dehydrator trays with drying sheets. Working with 1 cup of puree at a time, spread it in a strip ¼ inch thick, leaving space between the strips on each drying sheet. Dehydrate for 12 hours.

Dryness test: Should be dark green, brittle, and feel dry to the touch.

Storage: See Storing Dehydrated Vegetables (page 49).

Tip

The rehydrated puree made from broccoli stalks is the perfect base for a cream of broccoli soup.

BRUSSELS SPROUTS

Dehydrate Brussels sprouts to enjoy as a crispy snack as is, or to rehydrate and prepare using your favorite recipe.

Dehydrating temperature: 125°F

Preparation: Trim the stems of the Brussels sprouts and remove any wilted or damaged outer leaves. Boil or steam them whole until you can pierce them with a sharp knife or skewer. Drain and place the sprouts in a large bowl of ice water until cool. Cut each sprout vertically in half through the stem and spread on dehydrator trays, cut side up. Dehydrate for 12 hours.

Dryness test: Should feel dry to the touch and be crunchy.

Storage: See Storing Dehydrated Vegetables (page 49).

Tip

If you're dehydrating your Brussels sprouts to enjoy as a snack, you can salt the cooked Brussels prior to dehydrating them.

CABBAGE

Cabbage is so nutritious. Dehydrate shredded cabbage, and you can add a handful of it to most any soup, stew, or casserole! Dehydrate the whole leaves and making cabbage rolls is a snap. The preparation outlined here works for all kinds of cabbage, including Napa and Chinese.

Dehydrating temperature: 125°F

Preparation:

Whole leaves: Core the cabbage, then cut it in half, if you like. Boil or steam the cabbage halves or whole head until the leaves are tender and fall away from the head. Cool the cabbage in a large bowl of ice water, then pull the leaves away from the head. Spread the leaves on dehydrator trays and dehydrate 8 to 10 hours.

Shredded or chopped cabbage: Core the cabbage, then cut into ½-inch-thick slices. Boil or steam 2 to 3 minutes. Drain and place in a large bowl of ice water until cool. Drain, then chop the cabbage, if you like, or loosen the shreds with your fingers and pile it onto dehydrator trays. Dehydrate 8 to 10 hours.

Dryness test: Should feel dry like paper and be flexible.

Storage: See Storing Dehydrated Vegetables (page 49).

Tip

A meat slicer makes short work of shredding cabbage.

CARROTS

Carrots are 88% water, so they will reduce in size dramatically when dehydrated. Upon rehydration, however, they will enlarge like a sponge back to their full size! I love showing people dehydrated and rehydrated carrots side by side because the difference is so remarkable! Make sure you're fully stocked with dehydrated carrots prepped every way you're likely to use them—sliced, chopped, shredded, even whole baby carrots.

Dehydrating temperature: 125°F

Preparation: Trim the carrots and peel (this isn't necessary for baby carrots). Blanch whole in a large pot of boiling water for 5 minutes, and no longer (they are ready when they turn bright orange). Drain and place in a large bowl of ice water to cool. You can dehydrate the carrots whole or slice, chop, or shred as it suits your planned use for them. Lightly spray with lemon juice or an ascorbic acid solution, spread on dehydrator trays, and dehydrate 10 to 12 hours.

Dryness test: Should feel hard and dry to the touch, but still be somewhat flexible.

Storage: See Storing Dehydrated Vegetables (page 49).

Tips

- Because carrots lose so much water when dehydrated, be sure to add extra liquid to any recipe you add dehydrated carrots to.
- Carrots cooked prior to dehydration will retain their beautiful vibrant orange color over time; if they are dehydrated raw, they will take on an unappealing color and continue to fade over time. This is due to a provitamin in carrots called beta-carotene, which gives the vegetable its orange color, and is converted to vitamin A in the body. A brief heating

releases the beta-carotene from cell walls, thus increasing its bioavailability. In addition to it resulting in better color for the dehydrated product, it will also allow the beta-carotene to be more efficiently absorbed by the body. A further benefit to precooking is that it will cut the rehydration time.

CAULIFLOWER

Add rehydrated cauliflower to soups, stews, and side dishes.

Dehydrating temperature: 125°F

Preparation:

Florets: Steam or boil the cauliflower in large pieces (or you can leave the head whole) until tender and place in a large bowl of ice water to cool. Cut the cauliflower into 1-to 3-inch florets, spread on dehydrator trays, and dehydrate 12 to 14 hours. The dehydrated florets will become dark yellow brown and feel hard and dry to the touch.

Stalks: Continue to boil the stalks until they are very tender. Drain and puree in a blender. Line the dehydrator trays with drying sheets. Working with 1 cup of puree at a time, spread it in strips ¼ inch thick on the sheets, leaving space between them. Dehydrate the strips 12 hours. They should be brittle and feel dry to the touch.

Storage: See Storing Dehydrated Vegetables (page 49).

Tips

- Dehydrated cauliflower turns a light yellow to brown color. Don’t worry, the natural color will return when it is rehydrated.
- The rehydrated puree made from cauliflower stalks is a great base for cream of cauliflower soup.

CELERY

With dehydrated chopped celery in your pantry, there is no need for a bunch of fresh celery to wilt away in your vegetable crisper again!

Dehydrating temperature: 125°F

Preparation: Wash and trim the stalks (but don't trim away the leaves). Chop the celery into ½-inch or smaller pieces and boil or steam for no longer than 1 minute. Drain and place in a large bowl of ice water until cool. Drain again, spread on dehydrator trays, and dehydrate 10 to 12 hours.

Dryness test: Should feel hard and dry to the touch.

Storage: See Storing Dehydrated Vegetables (page 49).

Tip

Do not precook celery if you are going to make celery powder with it.

COLLARD GREENS

Substitute whole collard leaves for cabbage for a new spin on stuffed cabbage. Dehydrated chopped collards can be added directly to soups and stews.

Dehydrating temperature: 125°F

Preparation: Working with one leaf at a time, dip into a pot of boiling water for 15 to 30 seconds, then plunge into a large bowl ice water until cool. Place on a clean, dry kitchen towel to drain. Trim away the stem. Arrange the leaves on dehydrator trays and dehydrate 6 to 8 hours.

Dryness test: Should be brittle, crumble easily in your hands, and feel dry to the touch.

Storage: The dehydrated leaves are fragile, so do not vacuum seal. Place in ziptop plastic freezer bags and then double-bag inside a Mylar bag or store inside a canning jar with a lid and oxygen pack. For chopped collards, see Storing Dehydrated Vegetables (page 49).

Tip

For chopped collards, wait until after dehydrating the whole leaves to cut them with kitchen scissors or break them into pieces with your hands. This will ensure maximum nutrient retention.

CORN

Buy ears of corn in bulk when it's in season in your area. Enjoy it fresh but then dehydrate the rest to have sweet corn on hand all year round. And though I'm not normally a fan of dehydrating canned vegetables or fruits, corn offers up some options that work well in the dehydrator—whole kernels, baby corn, and creamed corn.

Dehydrating temperature: 125°F

Preparation:

Fresh corn kernels: Shuck the ears and carefully clean the corn of the silk. Place the ears in a large pot of boiling water, making sure the water completely covers the corn. Cook until tender, approximately 8 minutes. Transfer the ears to a large bowl of ice water until cool. Working over a bowl, cut the kernels from the cobs using a decobber or sharp knife. Pour the kernels onto dehydrator trays and dehydrate 10 hours. Dehydrated corn kernels are darker yellow in color than fresh, develop a hard outer coating, and will click when dropped on the counter.

Canned baby corn: Boil or steam until tender, 3 to 4 minutes. You can leave the cobs whole or slice lengthwise down the middle. Spread on dehydrator trays and dehydrate 10 to 12 hours. Dehydrated baby corn will feel dry like paper and still be somewhat flexible, but will break if bent in half.

Canned corn kernels: Drain and rinse the corn, then pour it onto the trays and dehydrate 8 to 10 hours. Dehydrated corn kernels are darker yellow in color than fresh, develop a hard outer coating, and will click when dropped on the counter.

Storage: See Storing Dehydrated Vegetables (page 49).

Tips

- Don't worry about evenly spreading the kernels across the dehydrator

tray; uneven piles of corn will dehydrate just fine.

- Frozen corn kernels will take 8 to 10 hours to dehydrate.

CUCUMBERS

Dehydrate cucumber spears and chips you'll never buy pickles again! Check out my no-muss, no-fuss refrigerator pickle recipes on pages 291–92.

Dehydrating temperature: 125°F

Preparation:

Fresh cucumbers: If you don't plan to peel the cucumbers, blanch the whole unpeeled cucumbers in a large pot of boiling water for exactly 30 seconds, and no longer. (This will remove the wax from the cucumbers and soften the skins.) Otherwise, peel the cucumbers. Cut the cucumbers in slices or spears as you prefer, spread on dehydrator trays, and dehydrate 8 to 10 hours.

Crispy pickle chips or spears: You can dehydrate drained store-bought pickle slices or spears for a crunchy, salty snack. The brine from the jar will remain on the pickles, giving the dehydrated product a kick of pickle flavor. Spread on dehydrator trays and dehydrate for 10 hours.

Dryness test: Should be brittle, feel dry to the touch, and snap in half.

Storage: Dehydrated pickles and cucumbers are fragile and should not be vacuum sealed. Place in ziptop plastic freezer bags and double-bag inside a Mylar bag, or store inside a canning jar with a lid and oxygen pack.

EGGPLANT

Dehydrate your eggplant and you'll never have to salt it before cooking again! Keep your pantry stocked with eggplant prepped the way you use most—sliced, chopped, cubed—and getting dinner on the table just got that much easier!

Dehydrating temperature: 125°F

Preparation: If you don't plan on peeling the eggplant before dehydration, blanch the entire eggplant in a large pot of boiling water for 15 seconds or less, then transfer it to a large bowl of ice water until cool. Otherwise, peel the eggplant. Cut the eggplant up as you prefer (see Tip on this page), spread on dehydrator trays, and dehydrate 10 to 12 hours.

Dryness test: Should be brittle, feel dry to the touch, and snap in half.

Storage: See Storing Dehydrated Vegetables (page 49).

Tip

You can slice, cube, dice, or chop the eggplant prior to dehydration as you prefer, but whatever the cut, make sure the eggplant is no more than ¼ to ½ inch thick.

FENNEL

Dehydrated fennel bulb is delicious as is—it's a crispy chip, with a distinctive anise-like (licorice) flavor. In addition to the bulb, the aromatic stalks and leaves can be dehydrated for use in teas, potpourri, and infused oils. Fennel seeds can also be dehydrated—why pay a premium price for it in the spice section?

Dehydrating temperature: 90°F for seeds, 90° to 100°F for stalks and leaves, and 125°F for bulbs

Preparation: Wash, then cut the stalks from the bulb.

Stalks and leaves: Blanch the stalks (with their leaves left on) in boiling water for no more than 1 minute. Drain, then place in a large bowl of ice water until cool. Spread the stalks and leaves on dehydrator trays and dehydrate at 90° to 100°F for 12 hours. When dehydrated, the leaves will be brittle, feel dry to the touch, and crumble easily. The stalks will feel hard and dry but still be somewhat flexible.

Fennel bulb: Set a mandoline or meat slicer to its thinnest setting and slice the bulb. Blanch the slices in boiling water for 1 minute. Drain, then place in a large bowl of ice water until cool, Drain, then spread on dehydrator trays and dehydrate at 125°F for 12 hours. Dehydrated fennel bulb should feel hard and dry to the touch and snap in half.

Fennel seeds: See Dehydrating Herb Seeds (page 103).

Storage: See Storing Dehydrated Vegetables (page 49).

Tip

As long as you keep the temperature at 90° F and no higher when dehydrating fennel seeds, they will still germinate when planted.

GARLIC

After dehydrating and using a lot of garlic, I have found that it's best to dehydrate garlic slices, and to crush or chop them afterwards. You end up with a much more robust flavor than if you dehydrated chopped garlic, plus doing it this way minimizes the odor and increases nutrient retention. And if you're a fan of roasted garlic, why not roast multiple heads at once, use one, and dehydrate the rest?

Dehydrating temperature: 125°F

Preparation:

Fresh garlic: Peel the cloves and slice (a food processor will make short work of this). Spread on dehydrator trays and dehydrate for 8 hours.

Roasted garlic: Slice off the tops of the garlic heads so the cloves are exposed. Roast the heads in a preheated oven at 400°F or on the grill with the lid down until the cloves feel soft when you squeeze them, about 30 minutes. Once the garlic has cooled enough to handle, squeeze the cloves out of their peels directly onto a drying sheet set on a dehydrator tray and mash. Dehydrate 8 to 10 hours.

Dryness test: Should be brittle and feel dry to the touch; dehydrated garlic slices should snap in half and crush into a powder, and roasted garlic should easily break apart in your hands.

Storage: See Storing Dehydrated Vegetables (page 49).

Tips

- See page 80 for how to make your own garlic powder and garlic salt.
- To dehydrate jarred chopped garlic, drain, then spread on a drying sheet set on a dehydrator tray and dehydrate for 8 hours, until the garlic is brittle and dry to the touch.

GINGER

Make your own ground ginger—simply throw it in the blender after dehydrating it. Dehydrated ginger is also nice used in tea.

Dehydrating temperature: 125°F

Preparation: Thinly slice (no need to peel the ginger first). Spread on a dehydrator tray and dehydrate 8 to 10 hours.

Dryness test: Should be brittle, feel dry to the touch, and snap in half.

Storage: See Storing Dehydrated Vegetables (page 49).

Tips

- A meat slicer or food processor is handy for the slicing, as ginger is pretty fibrous.
- If you want to reduce dehydrated ginger to a powder for use in cooking, be aware that because it’s so fibrous, no matter how long you whir it in the blender, you will not end up with a fine powder. So be reassured, that a coarse, even chunky, powder is fine.
- Don’t use your homemade ground ginger as a 1:1 substitute for store-bought. The flavors are not exactly alike, so experiment first.

KALE

You'll never have to buy expensive kale chips again! And you'll always have super-nutritious kale on hand to add to soups, stews, and more.

Dehydrating temperature: 125°F

Preparation: Wash the leaves well and pat dry.

Kale chips: Cut the center stems from the leaves. Slice the leaves into 4 x 3-inch rectangles. If you like, blanch the kale in a large pot of gently boiling water for 15 seconds, then remove and shock it in a large bowl of ice water (see Tip). If you wish, you can salt the boiling water or lightly salt the kale prior to dehydrating to add a little flavor. Tossing the kale with sesame seeds and soy sauce prior to dehydration is another tasty option. Spread the kale on dehydrator trays and dehydrate 4 to 5 hours.

Kale leaves: Cut the center stems from the leaves, blanch for 15 seconds in boiling water, then shock them in a large bowl of ice water. Spread on dehydrator trays and dehydrate 6 to 8 hours.

Dryness test: Should be brittle, feel dry to the touch, and easily break apart in your hands.

Storage: The dehydrated product is fragile, so do not vacuum seal. Place in ziptop plastic freezer bags and then double-bag inside a Mylar bag, or store inside a canning jar with a lid and oxygen pack.

Tip

Blanching kale flattens the leaf, making for a nicer chip. However, you can dehydrate the kale without taking this step if you choose.

LEEKS

Next time you have to buy a bunch of leeks when you only need one, dehydrate the rest and you'll have them on hand to add to soups and stews.

Dehydrating temperature: 125°F

Preparation: Trim the roots from the leeks, as well as the dark green portion, and discard. You can either cut them across into thin rounds or lengthwise into strips. Place them in a large bowl of water and agitate well to dislodge any dirt. With your hands or a strainer, remove from the water to clean, dry kitchen towels and pat dry. If the leeks haven't already separated themselves, pull any remaining slices into ringlets. Spread on dehydrator trays and dehydrate 8 to 10 hours.

Dryness test: Should feel like paper to the touch and be flexible.

Storage: See Storing Dehydrated Vegetables (page 49).

Tip

Take extra care when washing leeks, as they tend to be sandy near the roots.

MUSHROOMS

Dried mushrooms add great depth of flavor to soups, stews, risottos, and so much more. Try to keep a variety of different types on hand. And dehydrating whole portobello mushroom caps means you can make yourself a mushroom burger any time you want!

Dehydrating temperature: 125°F

Preparation: Clean the mushrooms (see Tip).

Whole mushrooms (except portabellos): Trim the bottom of the stem (for shiitakes, remove the stem entirely). Spread on dehydrator trays and dehydrate 10 to 14 hours depending on size.

Whole portabello mushrooms: Discard the stems. Place the caps, stem side down, on dehydrator trays, and dehydrate 12 to 14 hours.

Sliced mushrooms: Trim the bottom of the stem (for shiitakes, remove the stem entirely). Slice the mushrooms, spread on dehydrator trays, and dehydrate for 8 hours.

Dryness test: Should be brittle, feel dry to the touch, and snap in half.

Storage: See Storing Dehydrated Vegetables (page 49).

Tips

- If you soak or wash mushrooms in water prior to dehydrating, they will turn an unattractive gray color. These are still fine to eat and cook with, but for a nice-looking dehydrated product, simply clean your mushrooms by wiping them with a damp cloth. Pre-cleaned or pre-sliced mushrooms purchased from the store will turn out perfect.
- Due to the thickness of some mushrooms, you might have to remove the dehydrator tray above for them to fit.

OKRA

Sliced okra is a delicious addition to soups (it's a traditional ingredient in gumbo) and it's particularly delicious when it's rehydrated, tossed in cornmeal, and fried up crisp.

Dehydrating temperature: 125°F

Preparation: Place the okra pods in a strainer and dip into a large pot of boiling water for no more than 10 seconds; remove, and dip in a large bowl of ice water until cool. Trim ¼ to ½ inch from the bottom of each pod, then cut the rest of the pod into rounds of whatever size you prefer. Spread on dehydrator trays and dehydrate 8 to 10 hours.

Dryness test: Should be brittle, feel hard and dry to the touch, and crush easily.

Storage: The dehydrated product is fragile, so do not vacuum seal. Place in ziptop plastic freezer bags and then double-bag inside a Mylar bag, or store inside a canning jar with a lid and oxygen pack.

Tip

Okra contains mucilage, a slimy substance that is released when the pods are cut, and which is used as a thickening agent in soups and stews. When dehydrated, though, okra becomes crisp and brittle.

ONIONS (Yellow, White, and Red)

Buy onions in bulk when they're on sale and stock your dehydrator pantry!

Dehydrating temperature: 125°F

Preparation:

Raw onions: Peel away the outer skin, then slice, chop, or mince the onions. If sliced, separate the slices into rings. Spread on dehydrator trays (if the onions are minced, first line the tray with a drying sheet) and dehydrate 12 to 14 hours. Dehydrated raw onions will feel dry like paper and be flexible.

Blanched onions: Peel, then cut the onions as directed above. Place in a strainer and dip in a large pot of boiling water 15 to 30 seconds, then place into a large bowl of ice water until cool. Shake to remove as much water as possible, then spread on dehydrator trays and dehydrate 8 hours. Dehydrated blanched onions will be brittle, feel dry to the touch, and snap in half.

Storage: See Storing Dehydrated Vegetables (page 49).

Tip

- If cutting onions makes you cry, place them in the freezer for one hour before slicing and chopping.
- Blanching onions prior to dehydrating will also reduce the pungency, as well as cut the dehydrating time significantly.
- A meat slicer or mandoline will slice your onions up in no time.
- You can mince your onions prior to dehydration but I prefer to do that once the onions are dehydrated; the more you chop onions prior to dehydration, the greater the flavor loss.
- Onions with a high sugar content (like Vidalia, Maui, or 1015 Sweets) will turn pink when dehydrated. That color goes away once the onions are rehydrated. If you blanch the onions before dehydration, the color

change won’t occur.

- Do not dehydrate onions with other foods, as they may take on the onions’ strong odor.
- Dehydrated blanched onion slices are yummy to eat as as snack and taste like onion rings without the fat.

ONIONS & SHALLOTS (Green Onions, Scallions, Shallots, Pearl Onions, Cipolline)

Scallions are particularly nice to have on hand to add to Asian-inspired dishes.

Dehydrating temperature: 125°F

Preparation:

Green onions and scallions: Wash, then trim the root end and any damaged greens. Cut across into thin rings or into lengths, as you prefer. Spread on dehydrator trays and dehydrate 8 to 10 hours.

Pearl onions, cipolline, and shallots: Peel, then cut into thin slices. Pull the slices apart into rings. Spread on dehydrator trays and dehydrate 8 to 10 hours.

Dryness test: Should feel dry like paper and be flexible.

Storage: See Storing Dehydrated Vegetables (page 49).

PARSNIPS & TURNIPS

Parsnips and turnips are a tasty change from carrots.

Dehydrating temperature: 125°F

Preparation: Peel the parsnips and turnips, if you like. Add the whole parsnips or turnips to a large pot of boiling water and cook until tender all the way through, 35 to 40 minutes. Drain and place in a large bowl of ice water until cool. Drain, then cut out the fibrous core and slice, cube, chop, shred, or mash as you prefer and spread on dehydrator trays. (For mashed turnips, working with 1 cup of puree at a time, spread it ¼ inch thick in strips on drying sheets set in the trays.) Dehydrate for 12 hours.

Dryness test: Should feel dry like paper and be somewhat pliable but will break apart.

Storage: See Storing Dehydrated Vegetables (page 49). For the dehydrated mashed turnips, break each strip into pieces and bag separately, so that you know that amount will rehydrate to 1 cup of puree.

Tip

With dehydrated mashed parsnips and turnips in your pantry, all you need to do is add water for an almost-instant side dish!

PEAS & CHICKPEAS
(English, Sugar Snap, Snow, & Garbanzo Beans)

Canned peas and chickpeas are exceptions to my usual preference to not dehydrate canned vegetables (see page 49). But fresh is always best!

Dehydrating temperature: 125°F

Preparation:

English peas: Remove the peas from their pods, place in a strainer, and steam or boil until dark green and tender, about 5 minutes. Set the strainer in a large bowl of ice water until cool. Shake to remove as much water as possible, spread on dehydrator trays, and dehydrate 8 to 10 hours.

Sugar snap and snow peas: Wash the peas, then boil or steam until tender, about 5 minutes. Drain and place in a large bowl of ice bath until cool. Drain, spread on dehydrator trays, and dehydrate 8 to 10 hours. Dehydrated sugar snap and snow peas will be a translucent dark green, be brittle, feel dry to the touch, and snap in half.

Canned peas or chickpeas: Drain and rinse the peas, spread on dehydrator trays, and dehydrate 8 to 10 hours.

Dryness test: Unless otherwise indicated, should feel hard and dry, and will reduce to powder if struck with a kitchen mallet.

Storage: See Storing Dehydrated Vegetables (page 49).

PEPPERS, BELL & CHILE

Have fun and fill your garden with an enormous selection of the incredible variety of bell peppers and chiles now available as seeds. Then you can have at your fingertips, ready for rehydration, whole bell peppers in red, yellow, purple, orange, and green to use for stuffed peppers, or chiles from the mildest to the most incendiary to customize the heat of your favorite spicy dishes.

Dehydrating temperature: 125°F

Preparation: Wash thoroughly.

Whole bell peppers: Cut off the tops and remove the seeds and white membranes. Place on their sides on dehydrator trays, with the insides of the peppers facing the fan of the dehydrator. Dehydrate for 8 hours, then, wearing disposable gloves, push the peppers inside out. Return them to the trays, placing them cut side down. Dehydrate another 6 to 8 hours. To rehydrate, soak them inside out in boiling water for 20 to 30 minutes, then push them right side out.

Whole chile peppers: Do not remove the stems; pierce with a toothpick or sharp knife (this facilitates air flow and helps the drying process along). Spread on dehydrator trays and dehydrate up to 24 hours, depending on the size of the chiles, periodically turning them as they dehydrate. When dehydrated, they will be brittle and the seeds will rattle when shaken.

Pepper pieces: Cut off the stems and remove the seeds and white membranes. Slice, chop, or mince as you prefer, or leave the peppers in halves. Spread on dehydrator trays (if dehydrating halves, place them skin side down) and dehydrate for 10 hours.

Dryness test: Unless otherwise indicated, should be brittle, feel dry to the touch, snap in half, and can be easily crumbled between your fingers.

Storage: See Storing Dehydrated Vegetables (page 49).

Tips

- You can grill or broil peppers before dehydration for extra flavor. Broil or grill the peppers whole until the skins are blackened on all sides. Remove to a bowl and cover with plastic wrap for 10 minutes, then remove the skins, which should just slip off. Cut the peppers in half, and remove the stems and seeds. Cut the peppers up as you prefer and dehydrate pepper pieces as directed.
- When working with hot peppers, it’s a good idea to wear disposable gloves to keep your skin from coming into contact with capsaicin, the active ingredient in chiles that causes that sought-after burn. Also, be vigilant about not touching your face or eyes.

POTATOES

I have dehydrated a lot of potatoes, so let me save you some grief—do not try dehydrating baking potatoes (Idahos, russets, etc.). They simply do not dehydrate well. Instead, use the denser waxy varieties, like Yukon Gold or the ubiquitous red potato. Also, don't waste time and potatoes trying to dehydrate mashed potatoes; getting the quality found in store-bought instant mashed potatoes requires special commercial equipment. I have found that it is near impossible to get the lumps out when you use home-dehydrated mashed potatoes.

Dehydrating temperature: 125°F

Preparation: Potatoes must be cooked all the way through before dehydrating. You can cook them whole, then cut them up, or cut them up first and then cook them. Here are the methods I use.

Cooking whole potatoes: You can boil them or bake them before cutting them up. *To boil*, bring the whole potatoes (with or without their peels) to a boil in a generous pot of water. Continue to boil just until you can easily insert a skewer into the centers of the potatoes. Drain and place in ice water to stop the cooking. Drain again. *To bake*, wrap each potato in aluminum foil and bake at 350°F until tender, about 1 hour. Let cool to room temperature with the foil still on. Either way, refrigerate the potatoes overnight to firm up, then peel off the skin with a knife and cut into slices or cubes no more than ⅓ inch thick, chop, or shred as desired. Spread on dehydrator trays and dehydrate 12 to 15 hours.

Cooking cut-up potatoes: Wash the potatoes if you intend to leave the skins on. Otherwise, peel them. Slice, cube, chop, or shred them as you prefer. Place the cut potatoes in a strainer, set in a large pot of water, bring to a boil, reduce the heat to medium-low, and cook until tender (if the cut potatoes are cooked at a rolling boil, they will fall apart, so make sure to reduce heat). Run the potatoes under cold water. Spread on dehydrator trays and dehydrate 12 to 15 hours.

Oven-baking sliced potatoes: Place potatoes sliced no more than ⅓ inch thick in a deep baking pan, cover with water, and bake in a preheated 350°F

oven until tender, about 1 hour. Remove from the oven, drain, let cool, then spread on dehydrator trays and dehydrate 12 to 15 hours.

Dryness test: All properly dehydrated potatoes should be hard and will break in half with significant force. They also must be completely transparent through the middle. If you see any solid white spots in the center, the potato is not completely dehydrated and should be dehydrated longer. If the center of a potato cube or slice is black, this is a sign of case hardening, and these potatoes should NOT be stored long-term. See page 23–24 for tips on how to try to reverse case hardening.

Storage: See Storing Dehydrated Vegetables (page 49).

Tip

- All potatoes need to be cooked before dehydration, white-fleshed potatoes in particular, because otherwise they will turn dark gray or black. But do not overcook them or they will fall apart.
- Potatoes are susceptible to case hardening when dehydrated, which can turn the inside of the potato piece black. To try to keep this from happening, your potato slices and cubes should be no more than ⅓ inch thick.

PUMPKIN & WINTER SQUASH

The best way to dehydrate pumpkin and other winter squash (with the exception of spaghetti squash—see below) is to reduce it to a puree, which you can then use in pies, cakes, side dishes, and much more.

Dehydrating temperature: 125°F

Preparation: Place the whole pumpkin or squash on a rack set in a large pot over boiling water and steam until tender, about 1 hour (check by inserting a skewer; it should go in without resistance). Transfer the whole pumpkin/squash to a sink of ice water. Once cool, let the water drain from the sink. Working in the sink, take a knife and gently cut away the skin. Carefully remove the peeled whole pumpkin/squash from the sink and place on a cutting board. Cut in half and remove all the seeds. Using a large spoon, scoop the flesh into a measuring cup and smoosh it down until you have 2 cups. Transfer this to a sheet of wax paper, and place another sheet of wax paper on top. Lightly roll the flesh with a rolling pin until it is as thin as a pie crust. Remove the top sheet and turn the other sheet upside down onto a dehydrator tray. Peel off the wax paper. With a pizza wheel, lightly wheel across the pumpkin, making a patchwork of 1-inch squares. Repeat until the trays are full. Dehydrate 10 to 12 hours. When dehydrated, it should feel dry like paper and be somewhat flexible and easy to break into squares.

Spaghetti squash: Cut the squash in half lengthwise, place cut side down on a baking sheet, and bake in a preheated 350°F oven until tender, 30 to 35 minutes. Let cool. Take a fork and gently shred the long strands from the middle of the squash. Spread them on dehydrator trays fitted with drying sheets and dehydrate 8 to 10 hours. Dehydrated spaghetti squash should be brittle and feel dry to the touch.

Storage: See Storing Dehydrated Vegetables (page 49).

Tip

Pumpkin and other winter squash need to be cooked before dehydration and I like cooking them whole if possible for two reasons:

1. The skin creates a protective shield that helps keep the nutrients and flavor in.
2. They’re much easier to peel and cut when cooked.

RADISHES

Have these on hand in your dehydrator pantry to rehydrate and enjoy in salads and as a chip for dip.

Dehydrating temperature: 125°F

Preparation: Wash the radishes, then slice. Spread on dehydrator trays and dehydrate 6 to 8 hours.

Dryness test: Should be brittle, feel dry to the touch, and snap in half.

Storage: See Storing Dehydrated Vegetables (page 49).

Tips

- Thinly sliced radishes will curl up when dehydrated, but will straighten out again when rehydrated.
- If you want smaller pieces of radish, I recommend dehydrating radish slices, then chopping them in a blender or food processor after dehydration.

RUTABAGA

Rutabaga is a nice addition to soups and stews.

Dehydrating temperature: 125°F

Preparation: Place whole rutabagas in a large pot of water and bring to a boil. Continue to boil just until you can pierce easily with a skewer, 40 to 50 minutes. Transfer to a sink of ice water and let cool. Peel off the skin and cut into quarters.

Chopped rutabaga: Chop in a food processor. Spread on drying sheet set in a dehydrator tray and dehydrate for 12 hours.

Mashed rutabaga: Reduce to a smooth puree in a blender or food processor, or use a potato masher. Working with 1 cup of puree at a time, spread it ¼ inch thick in strips on drying sheets set in the trays. Dehydrate for 12 hours.

Dryness test: Should feel hard and dry, but still be somewhat flexible.

Storage: See Storing Dehydrated Vegetables (page 49).

Tip

For best results, it's important to cook the rutabaga all the way through before dehydration.

SPINACH

Having dehydrated spinach on hand means you don’t need to worry about spoilage again. You can dehydrate baby spinach as well as mature leaves.

Dehydrating temperature: 110°F

Preparation: Wash well to get rid of any grit. Spread the leaves on dehydrator trays and dehydrate 8 to 10 hours.

Dryness test: Should be brittle, feel dry to the touch, and easily break apart in your hands.

Storage: Dehydrated whole spinach leaves are fragile, so do not vacuum seal. Place in ziptop plastic freezer bags and then double-bag inside a Mylar bag, or store inside a canning Mason jar with a lid and oxygen pack.

Tip

- Always chop spinach **after** it has been dehydrated for maximum flavor and nutrient retention.

SWEET POTATOES & YAMS

Sweet potatoes and yams are botanically distinct but they are handled the same way in the dehydrator.

Dehydrating temperature: 125°F

Preparation: You can boil or bake sweet potatoes and yams. *To boil,* bring the whole potatoes/yams to a boil in a generous pot of water. Continue to boil just until you can easily insert a skewer into the centers of the potatoes. Drain and place in ice water to stop the cooking. Drain again. *To bake,* wrap each potato in aluminum foil and bake 350°F until tender, about 1 hour. Let cool to room temperature with the foil still on. Either way, refrigerate overnight to firm up, then peel off the skin with a knife.

Sliced sweet potatoes/yams: Cut the peeled potatoes/yams into ¼-inch rounds. Spread the slices on dehydrator trays and dehydrate 12 to 14 hours.

Mashed sweet potatoes/yams: Mash the peeled potatoes/yams until smooth. Working with 1 cup of mash at a time, spread ¼ inch thick on drying sheets, then using a pizza cutter, cut into 1-inch squares. Dehydrate for 14 hours.

Dryness test: Should feel hard and dry, and be somewhat flexible (both sliced and mashed).

Storage: See Storing Dehydrated Vegetables (page 49).

Tip

Like regular potatoes, sweet potatoes and yams must be cooked prior to dehydration or they will turn black.

SWISS CHARD

Swiss chard is a tasty and nutritious addition to soups and stews.

Dehydrating temperature: 125°F

Preparation: Wash the leaves to get rid of any grit and trim the stems. Dip the leaves into a large pot of boiling water for 1 second and place on dehydrator trays. Dehydrate 6 to 8 hours.

Dryness test: Should be brittle, feel dry to the touch, and easily break apart in your hands.

Storage: See Storing Dehydrated Vegetables (page 49).

Tip

For the best nutrient retention, slice or chop Swiss chard after dehydration.

TOMATOES

Make the most of your garden surplus or summer sales when local tomatoes hit the market.

Dehydrating temperature: 125°F

Preparation: Wash the tomatoes.

Cherry or plum tomatoes: Cut in half, place on dehydrator trays skin side down, and dehydrate 10 to 16 hours. When dehydrated, they should feel hard and dry but still be somewhat flexible.

Chopped or sliced tomatoes: If slicing, cut the tomatoes ⅛ to ½ inch thick, as you prefer (I usually cut mine ¼ inch thick). Place the sliced or chopped

tomatoes on dehydrator trays and dehydrate 10 to 12 hours. When dehydrated, they should feel dry like paper, and be flexible but easily torn.

Storage: See Storing Dehydrated Vegetables (page 49).

Tip

You can remove the skins if you like, but it’s optional. To make this easier, dip the tomatoes in boiling water until the skins blister, about 1 minute. Place them in ice water and you should be able to slip the skins right off.

WATER CHESTNUTS

Canned water chestnuts are a good candidate for the dehydrator. That way you can use just what you need without worry of spoilage.

Dehydrating temperature: 125°F

Preparation: Drain water from the can. If the chestnuts are whole cut them into ¼-inch-thick slices. Spread the slices on dehydrator trays and dehydrate for 10 hours

Dryness test: Should feel very hard and dry, and snap in half with significant force.

Storage: See Storing Dehydrated Vegetables (page 49).

ZUCCHINI & OTHER SUMMER SQUASH

When your garden is overflowing with summer squash, your dehydrator can come to the rescue. Dehydrate the squash in slices to enjoy as a side dish later on, or shredded to add to muffins and quick breads, or even squash blossoms!

Dehydrating temperature: 100°F for squash blossoms and 125°F for sliced, shredded, or baby squash

Preparation:

Sliced or shredded squash: Wash, then cut into ¼-inch-thick slices or shred. Spread on dehydrator trays and dehydrate at 125°F for 10 to 12 hours.

Baby squash: Cut them in half lengthwise (if the squash is more than 1½ inches thick, cut lengthwise into thirds instead of halves, to ensure proper dehydration). Spread on dehydrator trays skin side down and dehydrate at 125°F for 8 hours. Turn the halves skin side up, score the skin with a sharp knife, and dehydrate for another 6 hours. These are delicious rehydrated in brine and then grilled.

Squash blossoms: Carefully wash the blossoms and spread over the dehydrator tray, and dehydrate at 110°F for 10 to 12 hours. The dehydrated flowers should be straw-like in texture.

Dryness test: Unless otherwise indicated, should be brittle, feel dry to the touch, and snap in half. Whole baby squash will be somewhat pliable.

Storage: See Storing Dehydrated Vegetables (page 49).

Tip

The fastest way to get even pieces is to use a food processor.

7

Dehydrating Herbs & Flowers & Making Tea

With a home dehydrator and a kitchen herb garden, there's no need to spend money on expensive little bottles of dried herbs again. You can also experiment with drying all sorts of edible flowers. Then you'll have all the ingredients you need to make your own tea blends, flavor rubs (page 163), flavored oils (page 170), potpourri (page 184), and more. Enjoy your creativity!

STORING DEHYDRATED HERBS AND FLOWERS

How you store your dried herbs and flowers depends on how you intend to use them. Once dehydrated, they are very fragile. If you vacuum pack them, the leaves/flowers will be crushed. If you are fine with that, then vacuum pack them and double-bag in Mylar. If you want them to remain whole, then store in canning jars with an oxygen pack. Stored in this way, they should retain their flavor for five years or more.

HERB LEAVES

This category includes those herbs that are used predominantly for their leaves, including basil, sage, oregano, marjoram, and others. Though most of these herbs dehydrate in 10 to 12 hours, there are exceptions, which are noted below. It's a good idea when dehydrating an herb for the first time to check on it regularly, and then note the dehydration time for future reference.

Dehydrating temperature: 90°F for lighter, finer leaves (like dill or thyme) and 110°F for more substantial or resinous leaves (like bay and rosemary).

Preparation: Trim the herbs of roots or wilted leaves, then rinse thoroughly and pat dry. Spread on dehydrator trays. Most herbs dehydrate in 10 to 12 hours but basil, some mints, and bay leaves can take up to 18 hours, while chives will be ready in about 4 hours.

Dryness test: Leaves are brittle and will crumble or break easily.

Tip

Drying the leaves while still on their branches or stalks will yield the best flavor. After dehydrating, strip the leaves from the stalks, then store.

HERB SEEDS

This category includes the seeds from such herbs as fennel, dill, flax, and caraway.

Dehydrating temperature: 110°F

Preparation: Put the herb seeds in a drawstring nylon mesh bag (or you can use reusable tea bags; fill, then press and seal). This will prevent the seeds

from blowing around. Place the bag(s) on dehydrator trays and dehydrate 10 to 12 hours.

HERB BERRIES

This includes barberries, juniper berries, and rose hips.

Dehydrating temperature: 110°F

Preparation: Wash thoroughly, then pat dry. Spread on dehydrator trays in a single layer; do not allow the berries to overlap or they will not dry properly. Dehydrate 8 to 12 hours.

Dryness test: Should be hard and will click when dropped on the counter.

Tip

Place smaller lightweight berries in a drawstring nylon mesh bag (or you can use reusable tea bags; fill, then press and seal) so they don’t get blown around.

HERB ROOTS

This category includes roots like burdock and horseradish (used in cooking) and ginseng (used medicinally).

Dehydrating temperature: 110°F

Preparation: Cut the root from the stalk and wash thoroughly. If the root is more than ½ inch thick, cut it lengthwise in half or across into slices less than ¼ inch in thickness. Spread on dehydrator trays and dehydrate 14 to 18 hours.

Dryness test: Some roots will become leathery and others will break easily. It is best to break or cut open a root to check that the inside is not wet.

LEMONGRASS

Being a stalk, lemongrass is in its own class

Dehydrating temperature: 110°F

Preparation: Trim the roots, then make a lengthwise slit down the stalk and peel away the tough, fibrous outer layers. Spread the stalks on dehydrator trays and dehydrate 10 to 12 hours.

Dryness test: Should be brittle and break easily.

Tip

Chop lemongrass after dehydration for better flavor.

EDIBLE FLOWERS

Do not assume a flower is edible; please check a reputable source to confirm that a flower is indeed edible or you could make yourself very sick. Among those that are edible are bee balm, lavender, chrysanthemum, pansies, marigold, honeysuckle, geranium, echinacea, rose, and daylily.

Dehydrating temperature: 110°F

Preparation: Gently rinse the flowers, then pinch them from their stems. Spread on dehydrator trays and dehydrate 10 to 12 hours. If you are going to remove the petals always remove after dehydrating.

Dryness test: Should be dry and straw-like in texture.

Tips

- Be particularly mindful of the source of your flowers in regard to possible exposure to poisonous pesticides if you intend to use them in food preparation. This can be the case with flowers harvested on the roadside or those purchased as cut flowers from the supermarket or florist.
- If you intend to remove the petals from the flowers, do that after dehydration.

MAKING YOUR OWN TEA BLENDS

With food dehydration you have the unique opportunity to build an extensive pantry of dehydrated herbs and flowers. One of the exciting things you can do with them is create delicious teas. Imagine, no more overpriced store-purchased teas in the same old flavors!

Start first with ingredients that you know, love, and understand. Then slowly spread those wings and become an amazing tea maker, exploring new ingredients and combinations. Dehydrated leaves, herbs, fruit, fruit peels, flowers, and spices are at your fingertips, offering up their fantastic natural flavors as well as their medicinal benefits, vitamins, and nutrients.

HAVE IT HOT OR COLD!

You can steep these teas, then enjoy them hot or refrigerate to chill and make a delicious iced tea!

Brewing Tea

You have a number of different options in regard to actually making yourself a cuppa.

Tea press: Also known as a coffee press or French press, it can be used to brew coffee as well. To make a pot of tea using a press, place your dehydrated loose herbs and ingredients in the bottom of the beaker. Fill with boiling hot water, let steep as directed in the particular recipe, then press down on the plunger, which will push the loose ingredients to the bottom of the beaker. Pour into cups and serve.

Press-and-seal bags: These disposable bags are commonly used to make your own tea bags. I recommend the larger 5-inch bags (they can be filled with enough of your dry tea blend to yield 2 to 4 servings) because I find the smaller single-serving bags are hard to fill. You place the dehydrated ingredients of your choice into the bag and seal, using an iron or even a curling iron. Place the bag

in a teapot, pour in the boiling water, and let steep as directed in your recipe. Pour into cups and serve. Throw away the used tea bag when done.

Reusable tea bags: These are not only great for the environment but they are also great for the budget. These tea bags are muslin bags that you fill with the dehydrated ingredients of your choice, then tie closed with the pull string at the top. Put the bag in your teapot, pour in the boiling water, and let steep according to the recipe. To wash these bags for reuse, simply turn them inside out, rinse out the herbs, and let soak in boiling water for a bit—do not use soap on them. Air-dry the bags or place them on a dehydrator tray at 135°F until dry.

Tea infuser: Tea infusers are small mesh or perforated metal containers that you fill with your dehydrated ingredients, then place in a cup or pot to steep tea. Depending on the size of your infuser, it may be used to make single or multiple servings. Once used, simply open the container and rinse to clean.

To get your creativity moving, here are some of our favorite teas!

Chamomile-Ginger-Orange-Honey Tea

This tea is hot, spicy, and sweet. It will warm you up and energize you better than a strong cup of coffee—and without the caffeine!

Makes 4 servings

2 tablespoons dehydrated chamomile flowers

1 tablespoon coarsely ground dehydrated ginger

½ teaspoon powdered dehydrated orange zest

4 cups boiling water

Honey

Place the chamomile, ginger, and orange zest in your tea apparatus of choice. Pour in the boiling water and let steep 3 to 7 minutes. Pour into cups and add honey to taste.

Rosemary and Lemon Tea

I am sitting here and typing while drinking my rosemary tea with a half slice of dehydrated lemon. It's simply heaven and takes little effort to prepare!

Makes 2 servings

2 teaspoons dehydrated rosemary leaves

½ slice dehydrated lemon

2 cups boiling water

Place the rosemary and lemon in the tea apparatus of your choice. Pour in the boiling water and let steep for 5 minutes or more. Pour into cups and serve.

Minty Alfalfa-Anise Tea

A wonderfully light and refreshing holiday herbal tea.

Makes 2 servings

1 teaspoon dehydrated alfalfa leaves

½ teaspoon dehydrated peppermint leaves

½ teaspoon dehydrated anise leaves

2 cups boiling water

Place the leaves in the tea apparatus of your choice. Pour in the boiling water and let steep 15 to 20 minutes. Reheat if necessary and serve piping hot.

Marigold Round Tea

The marigold provides fragrant floral notes, with a sweet, tangy flavor.

Makes 4 to 5 servings

1 tablespoon dehydrated lemon balm leaves

1 tablespoon dehydrated marigold flowers

½ teaspoon powdered dehydrated orange zest

½ teaspoon dehydrated stevia leaves

4 to 5 cups boiling water

Place the lemon balm, marigold, orange zest, and stevia in the tea apparatus of your choice. Pour in the boiling water and let steep for 20 minutes. Reheat if necessary and serve piping hot.

Sweet Potato Pie Tea

This tea has a sweet Southern charm that keeps you going back for more.

Makes 4 to 5 servings

2 tablespoons dehydrated parsley leaves

2 teaspoons powdered dehydrated sweet potato

½ teaspoon dehydrated stevia leaves

1 whole clove

4 to 5 cups boiling water

Place the parsley, sweet potato, stevia, and clove in the tea apparatus of your choice. Pour in the boiling water and steep for 20 minutes. Reheat if necessary and serve piping hot.

Beet-Red Tea

This beautiful, deep red tea, with a hint of raspberry and little bit of heat from the chile, will warm you up and energize you!

Makes 4 to 5 servings

2 tablespoons dehydrated raspberry leaves

2 teaspoons powdered dehydrated beets

¼ teaspoon crushed dehydrated chile pepper

4 to 5 cups boiling water

Place the raspberry leaves, beets, and chile pepper in the tea apparatus of your choice. Pour in the boiling water and let steep for 20 minutes. Reheat if necessary and serve piping hot.

Parsley and Pineapple Tea

This sweet and tangy tea is loaded with antioxidants.

Makes 6 servings

2 tablespoons dehydrated parsley leaves

2 tablespoons powdered dehydrated pineapple

6 cups boiling water

Place the parsley and pineapple in the tea apparatus of your choice. Add the boiling water and let steep for 20 minutes. Reheat if necessary and serve piping hot.

Rosemary, Sage, and Cinnamon Tea

This tea tastes of spice and earth (in a good way), with just a hint of sweetness from the honey.

Makes 2 servings

1 teaspoon dehydrated rosemary leaves

1 dehydrated sage leaf

2 cups boiling water

1 teaspoon honey

2 small cinnamon sticks

Place the rosemary and sage in the tea apparatus of your choice. Add the boiling water and let steep for 20 minutes. Add the honey, reheat if necessary, and serve piping hot, with each cup getting its own cinnamon stick.

Cranberry, Stevia, and Cinnamon Tea

Tart and sweet.

Makes 2 servings

1 teaspoon dehydrated chopped cranberries

1 teaspoon dehydrated stevia leaves

2 cups boiling water

2 small cinnamon sticks

Place the cranberries and stevia in the tea apparatus of your choice. Pour in the boiling water and let steep 15 minutes. Reheat if necessary and serve piping hot, with each cup getting its own cinnamon stick.

Rose Hips and Chamomile Tea

The flavor of rose hips reminds me of strawberry lemonade, a perfect balance of sweet and tart.

Makes 2 servings

1 teaspoon dehydrated rose hips

1 teaspoon dehydrated chamomile flowers

2 cups boiling water

Place the rose hips and chamomile in the tea apparatus of your choice. Add the boiling water and steep for 15 minutes. Reheat if necessary and serve piping hot.

“Bluegrass” Tea

It’s the marriage of lemongrass and blueberries that makes this tea memorable.

Makes 2 servings

1 tablespoon dehydrated blueberries

1 tablespoon dehydrated chopped lemongrass

2 cups boiling water

Place the blueberries and lemongrass in the tea apparatus of your choice. Add the boiling water and steep for 15 minutes. Reheat if necessary and serve piping hot.

Pharaoh’s Tea

This wonderful tea includes some of the dried herbs and food items that have been found stored in pharaohs’ tombs throughout Egypt: licorice (anise), orange, olives, and honey. The strong kick of licorice is balanced by the sweetness of honey and slight bitter notes from the olive leaves. If you aren’t lucky enough to have access to olive leaves, you can substitute grape leaves.

Makes 2 servings

1 tablespoon dehydrated anise leaves

1 tablespoon dehydrated orange zest

1 tablespoon dehydrated olive leaves

2 cups boiling water

½ tablespoon honey

Place the dehydrated items in the tea apparatus of your choice. Pour in the boiling water and let steep for 15 to 20 minutes. Reheat if necessary, then stir in the honey and serve piping hot.

Tropical Tea

This tea holds the sweet and exotic flavors of a tropical island.

Makes 4 to 5 servings

1 tablespoon powdered dehydrated mango peel

1 tablespoon powdered dehydrated papaya peel

1 tablespoon powdered dehydrated pineapple

1 tablespoon dehydrated honeysuckle flowers

4 to 5 cups boiling water

Place the powdered fruit and honeysuckle in the tea apparatus of your choice. Pour in the boiling water and let steep for at least 20 minutes—the longer it steeps, the stronger the flavor. Reheat if necessary and serve piping hot.

Tahiti Tea

Sweet and tart, with just a hint of raspberries from the leaves.

Makes 4 to 5 servings

2 tablespoons dehydrated raspberry leaves

1 tablespoon powdered dehydrated pineapple

1 tablespoon chopped dehydrated coconut

1 to 2 teaspoons date sugar (page 167), to taste 4 to 5 cups boiling water

Place the raspberry leaves, pineapple, coconut, and date sugar in the tea apparatus of your choice. Pour in the boiling water and let steep for at least 20 minutes— the longer it steeps, the stronger the flavor. Reheat if necessary and serve piping hot.

Autumn Tea

The taste and aroma of cinnamon and apples are the perfect combination for a cool autumn day. The dandelion leaves provide a welcome offsetting note of bitterness.

Makes 2 servings

2 tablespoons dehydrated dandelion leaves

1 tablespoon powdered dehydrated apple peels

1 teaspoon coarsely ground dehydrated ginger

½ teaspoon ground cinnamon

2 cups boiling water

Place the dandelion, apple peel, ginger, and cinnamon in the tea apparatus of your choice. Pour in the boiling water and let steep for 15 minutes. Reheat if necessary and serve boiling hot.

Chamomile and Apricot Tea

Sweet and relaxing.

Makes 2 servings

2 tablespoons dehydrated chamomile flowers

1 tablespoon finely chopped dehydrated apricot

1 teaspoon fennel seeds

1 teaspoon coriander seeds, crushed

1 teaspoon dehydrated orange zest

2 cups boiling water

Place the chamomile, apricot, fennel and coriander seeds, and orange zest in the tea apparatus of your choice. Pour in the boiling water and let steep for 15 minutes. Reheat if necessary and serve piping hot.

Peppy Patty Tea

The decadent flavor of chocolate meets mint in this delicious tea.

Makes 2 servings

2 tablespoons dehydrated peppermint leaves

2 teaspoons unsweetened cocoa powder

½ teaspoon dehydrated stevia leaves

2 cups boiling water

Place the peppermint, cocoa, and stevia in the tea apparatus of your choice. Pour in the boiling water and let steep for 15 minutes. Reheat if necessary and serve piping hot.

Lemony Lavender and Honeysuckle Tea

A cup of sweet citrus tranquility.

Makes 2 servings

1 tablespoon dehydrated lavender flowers

- **1 tablespoon dehydrated lemon balm leaves**
- **1 tablespoon dehydrated honeysuckle flowers**
- **1 teaspoon dehydrated stevia leaves**

2 cups boiling water

Place the herbs in the tea apparatus of your choice. Pour in the boiling water and let steep for 15 minutes. Reheat if necessary and serve piping hot.

Spearmint and Dandelion Tea

This tea is warm and refreshing in the same sip!

Makes 4 servings

2 tablespoons dehydrated spearmint leaves

1 tablespoon dehydrated dandelion leaves

1 teaspoon dehydrated stevia leaves

4 cups boiling water

Place the spearmint, dandelion, and stevia in the tea apparatus of your choice. Pour in the boiling water and let steep for 15 minutes. Reheat if necessary and serve piping hot.

Sunshine Tea

Bring balance to your world with this citrus floral tea.

Makes 4 to 5 servings

1 tablespoon dehydrated honeysuckle flowers

1 tablespoon dehydrated chrysanthemum flowers

1 tablespoon dehydrated lemon zest

4 to 5 cups boiling water

1 tablespoon honey

Place the honeysuckle, chrysanthemum, and lemon zest in the tea apparatus of your choice. Pour in the boiling water and let steep for at least 20 minutes—the

longer it steeps, the stronger the flavor. Reheat if necessary. Right before serving, stir in the honey.

8

Making Jerky and Dehydrating Tofu, Eggs & Dairy

This chapter will explore the options for dehydrating meat, eggs, and dairy along with the meat substitute tofu. We will walk you through the steps for producing a safe and delicious jerky as well as discussing the various health concerns associated with dehydrating meat.

JERKY

Jerky is one of those things that seem to get eaten up as fast as you can make it! It is a salty and chewy snack that is high in protein and is easy to take with you just about anywhere. Jerky isn't just for the meat lovers anymore; you can even make tofu jerky! Jerky is something everyone can truly enjoy.

Before I go on, let me make the distinction between jerky and freeze-dried meats. Jerky is not meant for long-term pantry storage. At most, vacuum-sealed beef jerky can be stored in the pantry for up to one month; beyond that time, it needs to go in the refrigerator or freezer. If you want to include meat in your long-term storage pantry, purchase commercially prepared freeze-dried meats.

Do It Right

Due to potentially harmful organisms often found in animal proteins, it is very important to prepare jerky properly.

1. Pre-freeze for safety. Putting your meat in the freezer for two months will

kill many harmful organisms, pathogens, and parasites, including tape-and trichina worms (those responsible for trichinosis), salmonella, listeria, and *E.coli.*

2. Keep it clean. Thoroughly wash your hands and all surfaces and utensils that will come in contact with the meat. Keep meat properly refrigerated until you are ready to prep it, then place immediately in the dehydrator or refrigerate until you are ready to do so.

3. Slice thinly. Thin slices will allow the heat to reach the center of the meat. Cut meat with the grain for a chewy jerky or cut meat against the grain for tender and brittle jerky.

4. Marinate. Marinades, with their flavorful combinations of spices, vinegars, and salts, can help destroy pathogens and surface bacteria; also, salt aids in the dehydrating process.

5. Bring on the heat. Always dehydrate meat at the recommended temperature of 160°F for a minimum of 6 hours. This temperature is adequate to kill most pathogenic bacteria. If your dehydrator does not go as high as 160°F and does not have a fan, for safety reasons, the dehydrator should not be used to dehydrate meat.

6. Dry completely. Give your jerky a final drying by arranging in a single layer on baking sheets and putting it in a preheated 275°F oven for 15 minutes. Let it cool completely before storing it. Your finished product should be fairly firm and not moist. You should be able to shred or tear the pieces easily, with no residual moisture.

Choosing Your Meat

You can make jerky from just about any animal protein you want, including beef, pork, lamb, poultry, fish, shrimp, and game. The leaner the protein is, the better the jerky. Fat does not dry and can cause jerky to spoil much faster.

For beef, New York strip, bottom round, and flank and skirt steaks are great cuts to use, as are sirloin and top round. For pork, use the loin; for lamb, filet.

When making jerky from turkey or chicken, use the breast because it is the leanest. Jerky made from dark meat can be very tough and hard to chew.

When making jerky from fish, I recommend you stay away from freshwater

fish, as they are exposed to too many parasites to make dehydration a safe option. Ocean fish are a much safer choice. I particularly like using salmon for jerky, but bass, pike, cod, and trout are other flavorful options.

If you intend to make jerky from game you or a friend have killed, be sure that the animal or bird is cleaned properly and that the meat you use has not come into contact with the viscera. Use the leanest cuts possible. Because of its high fat content, bear is not a candidate for making jerky.

Preparing the Meat

Trim the meat of any visible fat or skin (in the case of poultry of fish). Thinly slice the meat, ideally ¼ inch thick for meat and poultry, ¼ to ½ inch for fish. This is a lot easier to do if you partially freeze the meat first; it will allow you to cut straight and even slices with a sharp knife or meat slicer. For tender cuts, slice with the grain for a more durable product. Cutting against the grain is ideal for tougher, chewier cuts but will result in a more shredded and crumbly product. Try cutting both ways and see which you prefer.

If you want to flavor the meat, you can use either a rub (see pages 163–66) or a marinade. I find it easiest to place the meat strips in a large ziptop plastic freezer bag and add the rub or pour in the marinade. Knead the slices with the rub or marinade to make sure you've got good coverage, zip it up, then refrigerate. Marinating times can range from just a couple hours for fish to up to at least 24 hours for red meat; meats like beef and bison should marinate until they are no longer red.

Dehydrating the Meat

When you're ready, drain the marinade, if necessary, then line the strips in a single layer on dehydrator tray, leaving space between them to allow for good air flow, and dehydrate at 160°F until firm and not moist or overly pliable, 6 to 8 hours; meat treated with a dry rub tends to take less time than marinated meat.

MAKING DRIED SHRIMP

When dehydrating shrimp, use medium to large shrimp (jumbo shrimp are not recommended because they end up being too tough to eat after dehydration). Peel and devein the shrimp, then cut them in half lengthwise. Drop them in boiling salted water for 2 to 3 minutes (no more!), then drain and immediately drop into ice water to stop the cooking. Drain again and pat dry. Put the shrimp in a ziptop plastic bag, add the rub of your choice (I like to use Jerk Rub, on page 164), seal the bag, and shake until the shrimp are coated evenly. Refrigerate for 1 hour. (You can use a marinade instead if you like but avoid any that contain citrus juice or vinegar because they will toughen the shrimp.) If using a marinade, drain the shrimp and place in a single layer on dehydrator trays and dehydrate at 160°F for 6 hours. Remove the jerky from the dehydrator, arrange on baking sheets in a single layer, and place in a preheated 275°F oven for 15 minutes. When dehydrated, the shrimp will be salty and chewy. Remove from the oven and let the jerky cool completely. Vacuum seal and place in the refrigerator for best results, where it will keep for up to 3 months.

Storing Jerky

Jerky cannot be dehydrated at home for long-term storage. It can, however, be dehydrated for short-term consumption and will keep for up to 1 month in the pantry, 6 months in the refrigerator, or 1 year in the freezer, except for salmon, which will keep for 1 month in the refrigerator and 6 months in the freezer.

Let the meat cool completely before storing it in an airtight container. Vacuum-sealed bags with oxygen packs will provide the best results. Jerky will stay freshest if placed in the refrigerator or freezer until it is ready to eat.

Classic Jerky

This works well with beef, lamb, and venison.

Makes ½ pound jerky

1½ pounds boneless beef (preferably eye of round), lamb, or venison ¼ cup soy sauce

⅓ cup Worcestershire sauce

1 tablespoon steak sauce

1 teaspoon liquid smoke

½ teaspoon black pepper

½ teaspoon garlic powder

½ teaspoon onion powder

½ teaspoon salt

1. Trim the meat of any visible fat, then partially freeze. Cut into ¼-inch-thick slices or strips across the grain using a very sharp knife or meat slicer. Try to cut the meat as uniformly as possible for even drying. Place the strips in a large ziptop plastic freezer bag.
2. Whisk the remaining ingredients together in a small bowl and carefully pour over the strips in the bag. Squish everything around to coat, then seal the bag and refrigerate until the meat is no longer red, about 24 hours, turning and squishing the bag about halfway through to ensure even coverage with the marinade.
3. Drain off the marinade and place the strips in a single layer on dehydrator trays. Dehydrate at 160°F for 6 to 8 hours. When done, the jerky should bend but not snap, and should show no signs of redness.
4. Remove the jerky from the dehydrator, arrange on baking sheets in a single layer, and place in a preheated 275°F oven for 15 minutes. Allow the jerky to cool completely before placing in an airtight container.

Sweet and Spicy Pepper Beef Jerky

This is sweet and tangy with a kick. It also works well with poultry and pork.

Makes ½ pound jerky

1½ pounds beef eye of round

½ cup pineapple juice

¼ cup firmly packed brown sugar

¼ cup soy sauce

1 tablespoon crushed dehydrated jalapeños

1 teaspoon hot sauce

1. Trim the meat of any visible fat, then partially freeze. Cut into ¼-inch-thick slices or strips across the grain using a very sharp knife or meat slicer. Try to cut the meat as uniformly as possible for even drying. Place the strips in a large ziptop plastic freezer bag.
2. While the meat freezes, combine the remaining ingredients in a small saucepan. Place over medium heat and stir until the sugar dissolves. Let cool, then carefully pour over the strips in the bag. Squish everything around to coat, then seal the bag and refrigerate until the meat is no longer red, about 24 hours, turning and squishing the bag about halfway through to ensure even coverage with the marinade.
3. Drain off the marinade and place the strips in a single layer on dehydrator trays. Dehydrate at 160°F for 6 to 8 hours. When done, the jerky should bend but not snap, and show no signs of redness.
4. Remove the jerky from the dehydrator, arrange on baking sheets in a single layer, and place in a preheated 275°F oven for 15 minutes. Allow the jerky to cool completely before placing in an airtight container.

Maple Salmon Jerky

This warm maple marinade, spiced with black and cayenne pepper, also works well with duck and goose.

Makes ½ pound jerky

1½ pounds salmon fillets, skin and pin bones removed

¼ cup maple syrup

4 slices dehydrated garlic, crushed

¼ cup tamari (see Note on next page)

2 teaspoons salt

2 teaspoons black pepper

½ teaspoon cayenne pepper

1. Partially freeze the fillets, then cut across into ¼-to ½-inch-thick slices or strips using a very sharp knife or meat slicer. Try to cut the salmon as uniformly as possible for even drying. Place the strips in a large ziptop plastic freezer bag.
2. Whisk the remaining ingredients together in a small bowl and carefully pour over the strips in the bag. Squish everything around to coat, then seal the bag and refrigerate for 3 to 6 hours (no longer, or you run the risk of the salmon becoming mushy), turning and squishing the bag about halfway through to ensure even coverage with the marinade.
3. Drain off the marinade and place the strips in a single layer on dehydrator trays. Dehydrate at 160°F for about 6 hours. When done, the jerky should bend but not snap.
4. Remove the jerky from the dehydrator, arrange on baking sheets in a single layer, and place in a preheated 275°F oven for 15 minutes. Allow the jerky to cool completely before placing in an airtight container.

Note: It’s important to use tamari, not soy sauce, for this recipe, Using soy sauce could make the jerky too salty and overpower the maple flavor. If you can’t find tamari, substitute low-sodium soy sauce and omit the salt.

Smoky Salmon Jerky

This also works well with beef, poultry, and wild game.

Makes ½ pound jerky

1½ pounds salmon fillets, skin and pin bones removed

½ cup soy sauce

1 tablespoon molasses

1 tablespoon lemon juice

1 tablespoon Worcestershire sauce

2 teaspoons black pepper

1 teaspoon liquid smoke

1. Partially freeze the fillets, then cut across into ¼-to ½-inch-thick slices or strips using a very sharp knife or meat slicer. Try to cut the salmon as uniformly as possible for even drying. Place the strips in a large ziptop plastic freezer bag.
2. Whisk the remaining ingredients together in a small bowl and carefully pour over the strips in the bag. Squish everything around to coat, then seal the bag and refrigerate for 3 to 6 hours (no longer, or you run the risk of the salmon becoming mushy), turning and squishing the bag about halfway through to ensure even coverage with the marinade.
3. Drain off the marinade and place the strips in a single layer on dehydrator trays. Dehydrate at 160°F for about 6 hours. When done, the jerky should bend but not snap.
4. Remove the jerky from the dehydrator, arrange on baking sheets in a single layer, and place in a preheated 275°F oven for 15 minutes. Allow the jerky to cool completely before placing in an airtight container.

Spicy Sriracha Turkey Jerky

You can also use this peppy marinade with pork.

Makes ½ pound jerky

1½ pounds boneless, skinless turkey breast, trimmed of all visible fat ⅔ cup soy sauce

3 tablespoons honey

¼ cup sriracha

2 teaspoons red pepper flakes

1. Partially freeze the turkey breast, then cut into ¼-inch-thick slices or strips using a very sharp knife or meat slicer. Try to cut it as uniformly as possible for even drying. Place the strips in a large ziptop plastic freezer bag.
2. Whisk the remaining ingredients together in a small bowl and carefully pour over the strips in the bag. Squish everything around to coat, then seal the bag and refrigerate for 12 hours, turning and squishing the bag about halfway through to ensure even coverage with the marinade.
3. Drain off the marinade and place the strips in a single layer on dehydrator trays. Dehydrate at 160°F for 6 to 8 hours. When done, the jerky should just bend but not snap.
4. Remove the jerky from the dehydrator, arrange on baking sheets in a single layer, and place in a preheated 275°F oven for 15 minutes. Allow the jerky to cool completely before placing in an airtight container.

Teriyaki Chicken Jerky

This Asian-inspired sauce is sweet and tangy. You can also use it with beef, pork, and game.

Makes ½ pound jerky

1½ pounds boneless, skinless chicken breasts, trimmed of all visible fat
⅔ cup teriyaki sauce
½ cup root beer
¼ cup water
1 tablespoon honey

1 tablespoon soy sauce

1 tablespoon firmly packed brown sugar
1 teaspoon liquid smoke

1 teaspoon onion powder

½ teaspoon garlic powder
½ teaspoon salt
¼ teaspoon black pepper

1. Partially freeze the chicken breasts, then cut into ¼-inch-thick slices or strips using a very sharp knife or meat slicer. Try to cut them as uniformly as possible for even drying. Place the strips in a large ziptop plastic freezer bag.
2. Whisk the remaining ingredients together in a small bowl and carefully pour over the strips in the bag. Squish everything around to coat, then seal the bag and refrigerate for at least 12 hours, turning and squishing the bag about halfway through to ensure even coverage with the marinade.
3. Drain off the marinade and place the strips in a single layer on dehydrator trays. Dehydrate at 160°F for 6 to 8 hours. When done, the jerky should just bend but not snap 4. Remove the jerky from the dehydrator, arrange on baking sheets in a single layer, and place in a preheated 275°F oven for 15 minutes. Allow the jerky to cool completely before placing in an airtight container.

Sweet and Sour Chicken Jerky

This marinade also pairs well with pork and fish.

Makes ½ pound jerky

1½ pounds boneless, skinless chicken breasts, trimmed of all visible fat
¼ cup firmly packed brown sugar
¼ cup distilled white vinegar
¼ cup pineapple juice

1 tablespoon powdered dehydrated onions

4 fresh garlic cloves, peeled and crushed

1 tablespoon soy sauce

1. Partially freeze the chicken breasts, then cut into ¼-inch-thick slices or strips using a very sharp knife or meat slicer. Try to cut them as uniformly as possible for even drying. Place the strips in a large ziptop plastic freezer bag.
2. Whisk the remaining ingredients together in a small bowl and carefully pour over the strips in the bag. Squish everything around to coat, then seal the bag and refrigerate for at least 12 hours, turning and squishing the bag about halfway through to ensure even coverage with the marinade.
3. Drain off the marinade and place the strips in a single layer on dehydrator trays. Dehydrate at 160°F for 6 to 8 hours When done, the jerky should just bend but not snap.
4. Remove the jerky from the dehydrator, arrange on baking sheets in a single layer, and place in a preheated 275°F oven for 15 minutes. Allow the jerky to cool completely before placing in an airtight container.

Smoky Hot Jerky

This is my go-to marinade for beef and game.

Makes ¾ pound jerky

2 pounds flank steak

1 cup soy sauce

½ cup Worcestershire sauce

2 fresh jalapeño peppers, seeded and chopped

1 teaspoon liquid smoke

1. Trim the meat of any visible fat, then partially freeze. Cut into ¼-inch-thick slices or strips across the grain using a very sharp knife or meat slicer. Try to cut the meat as uniformly as possible for even drying. Place the strips in a large ziptop plastic freezer bag.
2. While the meat freezes, combine the remaining ingredients in a small saucepan. Place over medium heat and stir until the sugar dissolves. Let cool, then carefully pour over the strips in the bag. Squish everything around to coat, then seal the bag and refrigerate until the meat is no longer red, about 24 hours, turning and squishing the bag about halfway through to ensure even coverage with the marinade.
3. Drain off the marinade and place the strips in a single layer on dehydrator trays. Dehydrate at 160°F for 6 to 8 hours. When done, the jerky should bend but not snap, and should show no signs of redness.
4. Remove the jerky from the dehydrator, arrange on baking sheets in a single layer, and place in a preheated 275°F oven for 15 minutes. Allow the jerky to cool completely before placing in an airtight container.

Duck Jerky

This marinade is a delicious combination of sweet, salty, and hot. It’s also a great choice for goose.

Makes 1 pound jerky

3 pounds boneless duck breasts, all skin and fat removed

⅔ cup soy sauce

½ cup sherry

½ cup honey

2 tablespoons grated fresh ginger

1 tablespoon meat tenderizer

8 fresh garlic cloves, peeled and crushed

1 fresh chile pepper, seeded and chopped

1. Partially freeze the duck breasts, then cut into ¼-inch-thick slices or strips using a very sharp knife or meat slicer. Try to cut them as uniformly as possible for even drying. Place the strips in a large ziptop plastic freezer bag.
2. Whisk the remaining ingredients together in a small bowl and carefully pour over the strips in the bag. Squish everything around to coat, then seal the bag and refrigerate for at least 12 hours, turning and squishing the bag about halfway through to ensure even coverage with the marinade.
3. Drain off the marinade and place the strips in a single layer on dehydrator trays. Dehydrate at 160°F for 6 to 8 hours When done, the jerky should just bend but not snap.
4. Remove the jerky from the dehydrator, arrange on baking sheets in a single layer, and place in a preheated 275°F oven for 15 minutes. Allow the jerky to cool completely before placing in an airtight container.

Spicy Ginger Jerky

I love using this marinade with flank steak but it also works with pork and fish. Grinding the meat will give the jerky a different texture—less tough and easier

to chew. You'll need a jerky gun for this. It works much like a pastry bag (which you can use instead), in that you fill it with the ground meat mixture and can then squeeze it out into thin strips or sticks in a uniform manner, making a more attractive jerky stick.

Makes ½ pound jerky

1½ pounds flank steak

1 cup ginger ale

2 tablespoons brown sugar

1 tablespoon salt

2 teaspoons dry mustard (like Colman's)

1 teaspoon cayenne pepper

1 teaspoon liquid smoke

1. In a meat grinder or food processor, grind the flank steak until it has the consistency of ground beef. Transfer to a large bowl and add the remaining ingredients. Mix until well blended.
2. Place the mixture in a jerky gun or pastry bag fitted with a ¼-or ½-inch tip. Line the dehydrator trays with drying sheets. Squeeze the gun or bag to create lines of the mixture on the drying sheets that are ½ inch wide and 8 inches long. Lightly pat them so they are flat, and not round like a Tootsie roll. Dehydrate at 160°F for 6 to 8 hours. When done, the jerky should just bend but not snap.
3. Remove the jerky from the dehydrator, arrange on baking sheets in a single layer, and place in a preheated 275°F oven for 15 minutes. Allow the jerky to cool completely before placing in an airtight container.

DEHYDRATING TOFU

Tofu, or soybean curd, is very nutritious. A half-cup serving of firm tofu contains no cholesterol (because it is plant-based), 10 grams of protein (twice the amount of protein you would get from a half cup of dairy milk), 22% of the recommended daily value of calcium, and has less than a third of the calories and a third of the fat found in ground beef. It also tastes great in a variety of dishes, from stir-fries and soups to homemade tofu nuggets. And the great news is that you can dehydrate tofu!

Tofu comes in a variety of textures. Semi-firm, firm, and extra-firm textures work best when dehydrating because they contain less water and are easier to work with.

To dehydrate tofu, first drain any excess water, then cut the tofu into ¼-to ½-inch-thick strips or chunks.

You can dehydrate tofu plain or, for a flavorful and healthy jerky-like snack, soak the tofu in your favorite marinade in the refrigerator for several hours or toss it with your favorite seasoning mixture before dehydrating.

Let the tofu come to room temperature, then arrange in a single layer on dehydrator trays, spacing the chunks to allow for airflow. You might want to consider first fitting the trays with drying sheets; this will prevent sticking and keep any marinade from dripping and creating a mess in the dehydrator. Dehydrate at 150° to 155°F for 3 to 6 hours. Tofu is dehydrated when it is dry, brittle, and snaps in half. Tofu that is vacuum sealed and double-bagged in Mylar will keep for 5-plus years in the pantry.

To rehydrate tofu, you can soak it in a brine or marinade overnight in the refrigerator or pour boiling water over it and let it sit for 20 minutes.

EGGS AND DAIRY

Dehydrating eggs and dairy products such as milk and cheese for storage outside of the refrigerator is not recommended; that includes finished dishes that contain eggs and/or dairy. Eggs and dairy products contain organisms that may not be completely eliminated through dehydration alone. You are best served by purchasing powdered eggs, milk, and cheese from companies that have the

appropriate equipment to process and offer up for sale a reliable, safe dried product.

Tips

- See the yogurt drop recipe on page 128.
- Yogurt drops and leathers containing yogurt must be dehydrated at 135–145°F and stored in the refrigerator.

Making Yogurt

Though I don't recommend dehydrating dairy, it turns out that you can make delicious homemade yogurt in your dehydrator. With your choice of fresh ingredients, you can make your own custom blends at a fraction of the cost!

To make yogurt, in addition to your dehydrator, you'll need: • 4 half-pint canning jars with lids • Candy/deep-fryer thermometer

- Hand/immersion blender

To make 4 cups yogurt, you'll need:

4 cups fat-free milk

½ cup powdered milk

1 heaping tablespoon plain yogurt (any level of fat—including nonfat—is fine but make sure it contains an active culture) 1. Preheat the dehydrator to 115°F (no higher!). Sterilize the canning jars and lids.

2. In a microwave-safe medium bowl, whisk together the liquid and powdered milks until thoroughly blended. Microwave the milk until it starts to boil (or heat it on the stovetop, if you prefer). Remove the bowl from the microwave and insert a candy or deep-fry thermometer. Watch until the temperature of the milk drops below 120°F, but is still above 100°F. As soon as it drops just below 120°F, add the yogurt, then blend with a hand

blender for a few seconds. This yogurt provides the “starter culture” needed to facilitate the growth of the *Acidophilus* bacteria.

3. Carefully pour or ladle the mixture into the sterilized jars and put the lids on. Remove all the trays but the bottom one from the dehydrator, and place the jars on that tray. Dehydrate for 6 hours, then transfer to the refrigerator and chill for 6 to 8 hours before enjoying. Your plain yogurt will keep in the refrigerator for up to 1 month.
4. When ready to eat, remove a jar from the refrigerator and fold in your favorite fresh or dehydrated fruits, nuts, and/or date sugar to taste.

YOGURT RULES FOR SUCCESS

1. Yogurt cultures will die if the temperature exceeds 120°F and will grow too slowly if the temperature drops below 100°F.
2. It is important to sterilize the jars to avoid the growth of any unwanted bacteria.

Your yogurt can be used as the culture to start a new batch of yogurt, but it needs to used within seven days for that purpose.

Terms & Techniques to Know

Blanching: Some foods require blanching before dehydration (for certain other foods it is optional). This involves placing the items in boiling water for 1 to 2 minutes, then briefly dipping them into ice water to abruptly halt the heating process. This flash heating serves a few purposes. First, it destroys enzymes that play a role in causing particular foods to discolor and/or develop an odor or unwelcome taste over time. Blanching doesn't eliminate these processes but does considerably slow them. It also helps to soften a vegetable or fruit, allowing for the easy removal of unwanted skins, as is the case with peaches and tomatoes.

Boiling: This is used to cook a food all the way through prior to dehydrating. Some items you may wish to boil before dehydrating include potatoes, squash, beans, corn, carrots, beets, rutabaga, and rhubarb.

Broiling: Broiling a food prior to dehydrating will give it a roasted look when it is rehydrated. Do not use oil in this process, as oil impedes dehydration.

Building your pantry: Your pantry refers to your stock of vacuum-sealed and stored dehydrated items. Some people prefer to build their pantry with enough foods to sustain them in case of a weather emergency, others store food to last multiple years, and some build a pantry just large enough for immediate use in the kitchen for everyday recipes. The preference is yours!

Dehydrated foods: The terms "dehydrated" and "dried" are often used interchangeably in the dry-food business. However, there are subtle differences. Dehydration is a near-complete removal of water from foods, and implies the usage of some sort of dehydration device. Ideally, dehydrated foods should be 95% devoid of water, though we cannot actually measure this percentage quantitatively at home but rather must use our judgment.

Dehydrated foods should not be sticky or moist in any way, and are often

crisp, though they can also be chewy and pliable.

Dried foods: The term “dried” is broader than “dehydrated.” A dried food simply implies that some degree of water has been removed from the food, typically by means of air-or sun-drying. For example, the food industry often sells dates and raisins as “dried” foods. Dates and raisins are soft and chewy and moist, still containing a significant amount of water. When you handle raisins and other “dried” fruits, your hands will become moist and sticky. Dehydrated foods, by comparison, have had nearly all of the water removed, and therefore dehydration can be thought of as the extreme end point of “drying.” For this reason, all dehydrated items are technically “dried” items, but not all dried items are dehydrated. But in this book, for the sake of simplicity, both “dried” and “dehydrated” are used to refer to dehydrated foods.

With a home dehydrator, you can dry foods to any degree you wish. If you remove grapes from your dehydrator before they are completely dehydrated, you will have “dried” grapes, or raisins. These will still be moist and chewy. If you place the raisins back into the dehydrator until they are no longer moist, you will have “dehydrated” grapes.

Freeze-dried foods: Much different from dehydration or drying, freeze-drying (also called *cryodessication*) uses extreme low temperatures to flash-freeze food items, and then a subsequent rapid reduction in pressure to sublimate the frozen water molecules directly into gas. The process is common in the food industry and the items are often packaged and sold in “dried” fruit mixes, pre-packaged soups, cereals, and more. Although a convenient and cost-effective method for companies, freeze-drying cannot be performed at home, and has some nutritional downsides.

Compared to dehydrated foods, freeze-dried foods are often lighter in color and crunchier, and can easily be crumbled with your fingers into a powder. The dry fruits in cereals, for example, are often freeze-dried.

Grilling: As with broiling, you can grill food to give it a roasted look prior to dehydration. Do not use oil in this process, as it impedes dehydration.

Heat seal: This is the process used to seal Mylar bags, which cannot be vacuum sealed. Heat sealing simply melds the bag shut, without removing any air. Many vacuum sealers have a heat seal-only setting. Alternatively, you can purchase a handheld heat seal, or simply use a hair straightener or a clothing iron and a metal edge, such as the side of a carpenter’s level.

Powdering: Once dehydrated, you can throw any of your fruits and vegetables in a blender and reduce them to a flavor powder that can be used in rubs, breadcrumbs, soups, stews, and fruit sugars, or sprinkled over cookies or muffins. See page 80 for more information on this.

Rehydration: Rehydration puts water back into your dehydrated item, often restoring it to its original state. The methods used in this book are:

- *Quick soak:* This is when you take a dehydrated item and dip it into a bowl of boiling water for 1 to 60 seconds before using it in a recipe.
- *15-minute soak:* This is how you will rehydrate certain foods prior to cooking and baking. Simply place your dehydrated item in hot or boiling water to soak for around 15 minutes, drain the excess water, and then use the item in your recipe.
- *Rehydration by refrigeration:* Add to a 24-ounce canning jar 1½ cups of dehydrated sliced items such as beets, apples, peaches, or zucchini (if using small chopped items such as peas, corn, onions, etc., you would only require approximately ⅔ cup of the dehydrated items). For dehydrated vegetables, fill the jar to the top with boiling water or a brine (if you'd like pickled vegetables). For dehydrated fruits, fill to the top with room-temperature water, fruit juice, or a spiced water. For the vegetables, after the water cools, place the jars in the refrigerator for 24 hours (put the fruit immediately in the fridge). The rehydrated items are a delicious snack right out of the jar. The rehydrated vegetables can also be heated and served, and the rehydrated fruits can easily be made into a fruit salad or pie filling.

Sanitation: Although the process of dehydrating foods and vacuum storing kills most harmful bacteria, it is still important to practice proper sanitation in your kitchen. Thoroughly wash your food items with soap and water prior to dehydration, especially if you are planning on dehydrating the outer skins to use for cooking or teas.

Storage, long term: Long-term storage typically refers to items stored from 6 months to many years.

Storage, short term: Short-term storage refers to items stored less than 6 months.

Vacuum seal: When storing food in vacuum bags, you will close them using a vacuum sealer, which will remove all surrounding air, creating a suction-tight seal. This is different from a heat seal, which is used with Mylar bags.

Metric Equivalents WEIGHTS

1 ounce = 28 grams

4 ounces (¼ pound) = 113 grams 8 ounces (½ pound) = 227 grams 16 ounces (1 pound) = 454 grams

VOLUME MEASURES

¼ teaspoon = 1.25 ml ½ teaspoon = 2.5 ml 1 teaspoon = 5 ml

1 tablespoon = ½ fluid ounce = 15 ml 2 tablespoons = 1 fluid ounce = 30 ml ¼ cup = 2 fluid ounces = 60 ml ⅓ cup = 3 fluid ounces = 80 ml ½ cup = 4 fluid ounces = 120 ml ⅔ cup = 6 fluid ounces = 160 ml ¾ cup = 6 fluid ounces = 180 ml 1 cup = 8 fluid ounces = 235 ml 1 pint = 16 fluid ounces = 475 ml 1 quart = 32 fluid ounces = 945 ml 1 gallon = 128 fluid ounces = 3,755 ml (3¾ liters) **LENGTH MEASURES**

1 inch = 2.5 cm

1 foot = 30.5 cm

TEMPERATURE EQUIVALENTS

(rounded to the nearest 5)

°F	*°C*	*Gas Mark*
90	30	
100	40	
110	45	
125	50	
135		

135	55	
250	120	½
275	135	1
300	150	2
325	165	3
350	175	4
375	190	5
400	205	6
425	220	7
450	230	8
475	245	9
500	260	10

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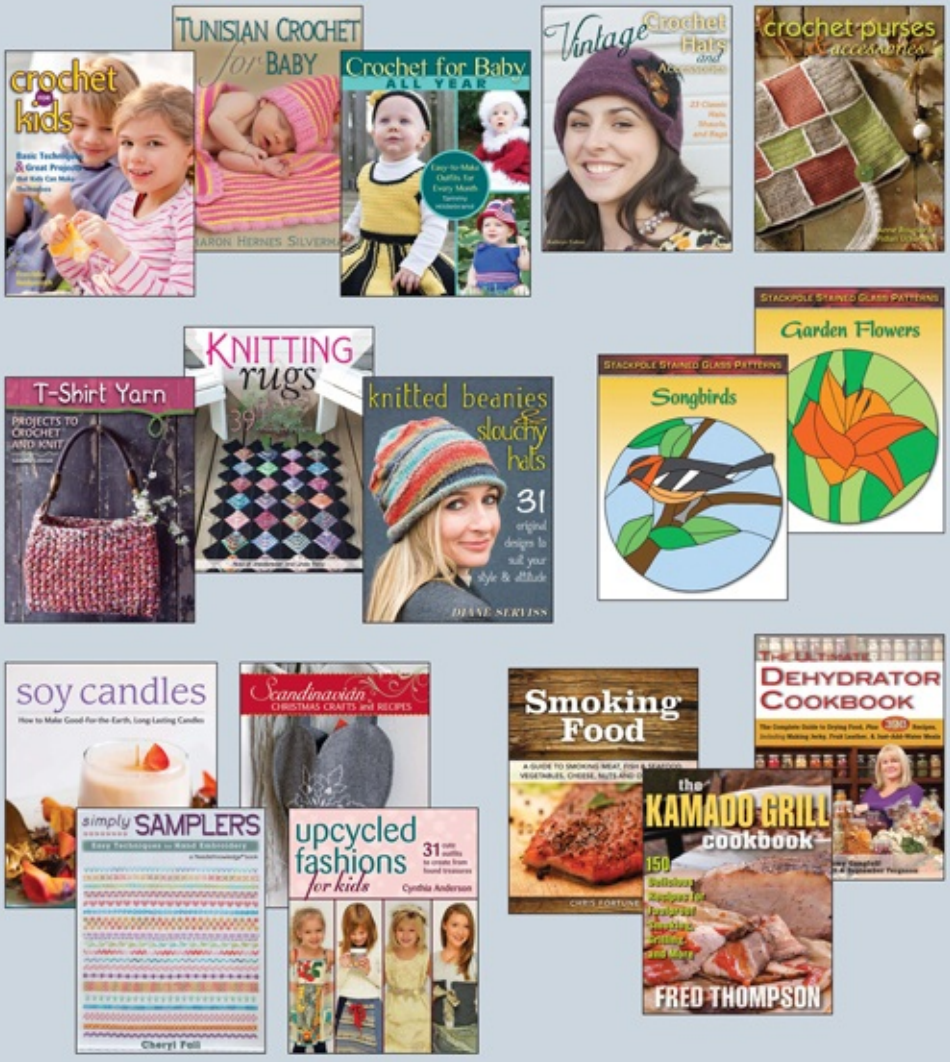
Leading the Way in **Crafts**



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Everything You Need to Know to Dehydrate Like a Pro!

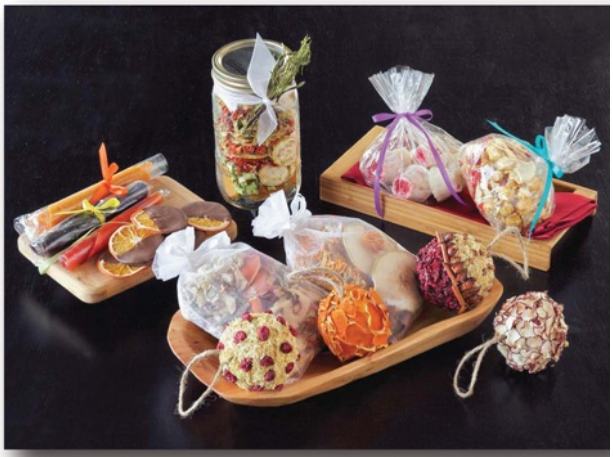
Dehydrating is the ultimate way to store food. Not only can you stock your pantry with delicious, nutritious food for just pennies, you can eliminate waste and preserve nutrients. Dehydrating food allows you to store food with no preservatives and no overprocessing, plus it delivers a longer shelf life than canning or freezing. This is clean eating at its best, without the spoilage and waste.

Whether you've got a garden full of fruits and vegetables that need to be harvested and stored, or you want to make your own dehydrated meals for backpacking, THE ULTIMATE DEHYDRATOR COOKBOOK has what you need:

- **A-to-Z entries on how to dehydrate fruits, vegetables, greens, herbs, flowers, and nuts, from Apples to Zucchini**
- **How to use the dehydrator to make jerky, fruit leathers and roll-ups, crackers, and just-add-water instant meals for home or camping**
- **Recipes for cooking with dehydrated ingredients, from soups to desserts, as well as all-natural baby food, herbal teas, and flavor rubs**
- **And so much more, including making your own infused waters and oils, potpourri, dried wreaths, and soap.**

THE ULTIMATE DEHYDRATOR COOKBOOK

—try it, dry it, love it!



Tammy Gangloff and **Steven Gangloff** are the founders of Dehydrate2Store.com, the leading online resource for food dehydration education. With her four dehydrators running day and night, Tammy has experimented with dehydrating every kind of produce available in the U.S., developing her own special techniques. Her instructional YouTube videos on dehydration have over a million views. CEO of Dehydrate2Store, Steven is currently pursuing his MD at the University at Buffalo School of Medicine.

September Ferguson is involved in recipe development for Dehydrate2Store. Along with her mother and brother, she helps to run the daily activities of the business, such as order fulfillment, social media, product review, and testing food storage techniques.

Cover photographs by kc kratt photography