

Cut and Dried

By Diane Bailey, April 2001

Who says you need water in your food? Dehydrate your vittles and you'll carry less weight, save money, and eat better.

To put it simply, I go bananas over dried apples. I love their tangy, slightly sweet zip while I'm hiking. Problem is, the store-bought variety comes complete with chemical preservatives and isn't cheap. That's why I started drying my own.

Then one day, after dehydrating enough apples to feed a battalion of backpackers, I realized as I stared at my home dehydrator that it was time to go beyond fruit. Here was the means of sucking out the water—and therefore weight—from many more foods, while preserving the vitamins, minerals, and taste! I dove in head first, making a few mistakes along the way, but in the end, I came up with a trail diet that's not only loaded with variety, taste, and nutrition, but also economical. In addition, I discovered that drying, whether done in an oven or dehydrator, is pretty darned easy.

Here's an introduction to dehydrating individual ingredients, all of which you can use to make fabulous one-pot trail meals (see the recipes below). The recipes also include snacks, sauces, and side dishes. Look in the next issue to learn how to dehydrate the gourmet meals you cook at home so you can enjoy them on the trail.

Going Juiceless

The secret of dehydration is to dry food at a temperature high enough to get rid of the water, but not so high that the food cooks. Moisture accounts for 60 to 90 percent of a food's weight & acts as a natural petri dish for the yeast, molds, and bacteria that cause food to spoil on the trail.

Drying time depends on a variety of factors ranging from the size of the food to the relative humidity of the air in your kitchen, so judging doneness is a skill learned through practice.

Fruits and vegetables: These dry best between 120° and 140°F. When done, fruit feels more leathery than sticky and vegetables are brittle.

Very fresh fruits and vegetables make the best dried products. Before drying veggies, blanch them until they're slightly tender to help preserve flavor, color, and texture. Tomatoes, mushrooms, and onions are the exceptions; they should be chopped and placed in the dehydrator without other preparation.

Meats: Meat can be either cooked and preserved or made into jerky. Meats dry best at or above 145°F and are dry and flaky when done. Jerky is done if it cracks like a green twig when bent.

Dried precooked meat is a spoilage-free, salt-free additive for soups and stews made in the field. After trimming off all visible fat, steam or roast red meat, fish, and poultry. Cool, cut into 1/2-inch cubes or 1/4-inch-thick slices, and dry. Before drying lean ground beef, sauté it, then remove as much fat as possible by rinsing the meat under hot water or draining it on layers of paper towels.

Ever-popular jerky is simply dried strips of raw meat seasoned with salt, soy sauce, ginger, and a variety of other seasonings (see *Moveable Feast, Backpacker*, October 1996, for recipes). The USDA recommends cooking meat to an internal temperature of 160°F to destroy bacteria before dehydrating; call its Meat and Poultry Hotline at (800) 535-4555 for more information. Beef, game meats, and fish—especially trout, pink salmon, halibut, and cod—all make good jerky. To reduce the risk of food-borne illness, avoid using uncooked poultry or pork to make jerky. Dried tofu pleases the vegetarian crowd and carnivores looking for a change of pace. Marinate firm tofu, then dry it at 160°F until brittle.

Rice and pasta: Save money and cooking time on the trail—and avoid the additives and preservatives in instant foods—by precooking rice and pasta. Most of the vitamins in instant rice are lost during processing and must be added later. Cook up an extra big batch of brown rice or whole-grain pasta for dinner at home, then dry the leftovers for your next camping trip to get the full nutritional benefit of these foods. Both will rehydrate in warm water.

Storage

Keep dehydrated vittles in airtight containers in a cool, dry, dark place. Fruits and vegetables last about a year. Dried meats can be kept at room temperature for up to 2 weeks, and jerky for about a month; refrigeration or freezing extends the shelf life of both.

On the Trail

Toss dehydrated foods in a cook pot, and let them absorb water while they simmer, or presoak them to cut cooking time. Putting your dried dinner veggies in a partially filled water bottle to soak at lunchtime will make them more tender by dinner. A cup of dried food requires approximately 1 cup of water to revive; use hot water and rip apart the food for faster rehydration.

With a store of dried staples, vegetables, meats, and herbs, you'll have everything you'll need to create simple one-pot wonders in camp (see the recipes below). Or, make a hearty soup broth or pasta sauce at home, dry it, and bring it back to life in camp by adding 3 parts water to 1 part dried ingredients. Packaged dinners such as rice or noodles and sauce take on new qualities—in both taste and nutrition—when you add dried veggies or meats. You can even perk up oatmeal with a handful of banana chips.

Snacks to Dry for

Once you have the basics down, let your imagination take over. Some of my home-dried favorites are between-meal foods that help lift feet and spirits during tough uphill slogs or through the gray misery of a cold, rainy day.

Here are a few ideas:

Yogurt tarts.

Drop teaspoonfuls of flavored yogurt onto a tray and dry them into deliciously tart drops. Although yogurt is a milk product, its acidity makes it safe for home drying.

Seasoned veggie chips.

For tasty, healthful trail snacks, dry zucchini slices dipped in tamari or tomato rounds sprinkled with dried basil. The more adventurous can puree vegetables to make vegetable leather (see below).

Bagel chips.

Slice bagels into rounds about 1/8 inch thick, season with garlic powder or cinnamon sugar, and dry for a couple of hours until crisp.

Trail mix.

Dry and combine chunks of different kinds of fruit for a sweet, high-energy treat. Apples work well. Trust me—I've dried bushels of them.

Fruit Leathers

Evenly spread (1/4 to 1/2 inch thick) pureed fresh fruit onto the plastic dehydrator-tray insert for making leathers or a tray lined with freezer, wax, or parchment paper, then dry for 8 to 16 hours until it can be peeled off as fruit leather. Blend apples, cranberries, and oranges, or whirl a handful of almonds and a dash of nutmeg into an apricot puree. Or use applesauce from a jar—it now comes in watermelon, berry, and peach mango flavors.

Dehydrator vs. Oven
By D. Bailey and Linda Frederick Yaffee

	Dehydrator	Oven
Cost Of Setup	\$30-\$300, depending on size and features; available at most department stores Look for models with an adjustable thermostat and a fan (these typically cost \$120 to \$300)	None, assuming you have an oven
Temperature Control		Remove the top heating element or place an empty baking sheet on the oven's top shelf. Dry food on the lower shelves. Use the warm setting and monitor the temperature with an oven thermometer to be sure it stays at or below 145°F. Check and rotate food often
Ventilation	A fan keep air moving across food surfaces for faster, more efficient drying	Open oven door slightly-1 or 2 inches for an electric oven, 5 or 6 inches for a gas oven-for air circulation and evaporation. Placing an electric fan in front of the oven also helps
Accessories	Purchase solid trays for making leathers, mesh inserts to keep small food pieces from falling through, and special dishes for making yogurt Limited only by your creativity	Use cookie sheets for drying liquids. Place food pieces directly on oven racks, wire cooling racks, or cheesecloth to dehydrate
Suitable Foods		Best for small, occasional batches of food, since heating the oven for the time required uses a lot of energy. Minimum oven temperatures are often higher than the ideal for fruits and vegetables

Resources

The instruction manuals that come with most dehydrators detail drying methods and times, and usually include a few recipes, too. In addition, a wide range of cookbooks is available at bookstores. These resources are available at www.backpacker.com/bookstore:

Backcountry Cooking: From Pack to Plate in 10 Minutes, by Dorcas S. Miller (The Mountaineers, 800-553-4453; \$16.95). Mary Bell's Complete Dehydrator Cookbook, by Mary Bell (William Morrow and Co., 570-941-1500; \$16), provides an excellent overview of food drying. Bell's Web site, www.drystore.com, is also a good source of information.

For advice and recipes geared to backpackers, see Trail Food: Drying and Cooking Food for Backpackers and Paddlers, by Alan S. Kesselheim (McGraw-Hill, 800-262-4729; \$8.95).

Recipes

Breakfast Entree

Breakfast Granola

Recipe Ingredients

- 1/2 Cup honey
- 1/2 Cup hot water
- 1/2 Cup canola oil
- 2 Teaspoons vanilla
- 5 Cups rolled oats
- 1/2 Cup wheat germ
- 1/2 Cup sesame seeds
- 1 Cup sunflower seeds
- 1 Cup slivered almonds or chopped pecans
- 1 Cup dried fruit (try peaches and coconut, or apple chunks with a teaspoon of cinnamon)
- 3 Tablespoons powdered milk

Serves: 8

At Home: Combine honey, water, oil, and vanilla, and pour the mixture over rolled oats in a mixing bowl. Add the next five ingredients and mix thoroughly. Spread < to = inch thick on trays and dry at 145F until crunchy (6 to 8 hours).

In Camp: Stir the powdered milk into a bowl of granola. Add water to barely cover and stir.

Calories: 701
Carbohydrates: 76.3
Cholesterol: 0.0
Dietary Fiber: 9.2
Fiber: 12.5
Protein: 19.0
Saturated Fat: 4.3
Sodium: 9.9
Total Fat: 38.8

Soup

Chicken Vegetable Soup

Recipe Ingredients

- 3/4 Cup dried chicken cubes
- 1 Cup dried mixed vegetables, such as carrots, green beans, corn, and peas
- 1/4 Cup dried celery
- 1/4 Cup dried onion
- 1/2 Teaspoon dried basil
- 1 Tablespoon dried parsley
- 7 Cups water
- 2 chicken bouillon cubes
- 1 Dash salt
- 1 Dash pepper

Serves: 4

At Home: Using previously dehydrated stores, mix the first six ingredients in a zipper-lock bag.

In Camp: Boil the water and dissolve bouillon cubes in it. Remove the broth from the heat and add the dried ingredients. Cover and let stand 30 minutes. Return to the heat and simmer 20 minutes or until the ingredients are tender. Season to taste with salt and pepper.

Calories: 213
Carbohydrates: 32.2
Cholesterol: 0.0
Dietary Fiber: 0.03
Fiber: 0.3
Protein: 18.8
Saturated Fat: 0.005
Sodium: 181
Total Fat: 2.1

Dinner Side Dish

Tabbouleh

Recipe Ingredients

- 1/3 Cup dried parsley
- 2 Tablespoons dried green onion
- 1/2 Cup diced dried tomato
- 1 1/2 Teaspoons dried mint
- 1 Cup bulgur
- 1/4 Teaspoon salt
- 3 Cups cold water
- 2 Tablespoons olive oil
- 2 Tablespoons lemon juice

Serves: 4

At Home: Use ingredients from the stash of food you've already dehydrated. Mix parsley, onion, tomato, mint, bulgur, and salt in a gallon-size zipper-lock freezer bag.

In Camp: Add the water to the bag of dried mix or combine the mix and water in a wide-mouth plastic bottle that holds at least 5 cups. Allow to rehydrate for = to 1 hour. When you're ready to serve, drain off excess liquid and mix in olive oil and lemon juice.

Calories: 213
Carbohydrates: 34.6
Cholesterol: 0.0
Dietary Fiber: 8.5
Fiber: 9.4
Protein: 5.7
Saturated Fat: 1.0
Sodium: 154
Total Fat: 7.3

Snack

Vegetable Leather

Recipe Ingredients

4 Cups diced tomatoes
1 Cup sliced carrots
1/2 Cup chopped onion
1/2 Cup chopped celery
1/2 Cup chopped red pepper
2 cloves garlic, minced
1 Teaspoon dried basil or a handful of fresh
1/2 Teaspoon salt

Serves: 4

At Home: Combine ingredients in a pot or microwaveable bowl. Add enough water to cover ingredients and cook, stirring occasionally, until vegetables are tender. Drain, then puree in blender or food processor. If you're using a dehydrator, use a tray lined with a solid plastic insert designed for making leathers. If you're drying in an oven, use nonstick cookie sheets. You can also line dryer trays or cookie sheets with freezer paper, wax paper, or parchment paper. Spread the puree about 1/4 inch thick on the liner or tray and dry at 120F until the leather easily pulls away from the liner or tray. Start checking for doneness after about 8 hours, but be aware that it could take up to 16 hours depending on the humidity level, leather thickness, and a host of other factors. Vegetable leather is delicious as is or can be reconstituted into a sauce or soup base.

Calories: 50.2
Carbohydrates: 11.3
Cholesterol: 0.0
Dietary Fiber: 2.9
Fiber: 4.4
Protein: 1.9
Saturated Fat: 0.1
Sodium: 380
Total Fat: 0.6

* Vegetarian