



## Food Dehydration Instructions

### Kroka's Food Philosophy

At Kroka, we believe that the decisions we make around food - what we grow, how we grow it, what we buy and where it comes from - are critical to creating a sustainable a relationship with the Earth. We find great joy in growing and gathering our own food and supporting local farmers.

Though the semester doesn't start until January, the fun starts now. Our program takes place from the height of winter through the lean times of early spring. There will be nothing to harvest in the Northeast until the first wild greens start poking through in April. We are looking to you for help with preserving this harvest so that we can keep our diet local, healthy and meaningful. While we will continue drying vegetables at base camp in January, there will not be enough time to process what we need for our Expeditions if we wait until the start of Semester to start this project.

### What We'd Like Your Help With

Dehydrating locally grown fruits and vegetables and locally raised meat for the winter trail: carrots, potatoes, winter squash, parsnips, hot peppers, beets, onions, garlic, rutabaga, tomatoes, apples, or any other local crops suitable for dehydration. Most of these crops can be sliced thin and spread on a rack over a heat source (wood stove, solar dehydrator, in an oven cracked open with the pilot light on, or conventional electric dehydrator), or they can be strung on a string with needle and thread and hung over a heat source. Please start dehydrating now!

### We'd Like Each Student to Dehydrate

- 20 pounds (wet weight) of vegetables
- 15 pounds (wet weight) of fruit
- 15 pounds (wet weight) of meat

## Helpful Hints

The drying of fruit, vegetables, and meat for preservation is known as food dehydration. In an expedition context, dehydrated food has the added benefit of reduced weight. Drying food removes between 80 and 90 percent of the water content of foods, thereby reducing their weight by a similar number. This is a substantial advantage on an extended trip! A pound of carrots dries down to a small sandwich-sized bag weighing only a few ounces. When it comes time to eat those same carrots, we soak them in a pot of hot water to make soup. This is called reconstitution, and produces a meal that is nutritious and delicious.

## General Principles

- Dry only food that is in prime condition and very fresh
- Dry food at temperatures between 140-175°F. Keep a constant airflow and rotate trays of food evenly
- Be scrupulously clean at every step
- Store dry food in an airtight container (e.g. ziplock bag) in a cool, dark place. If condensation is visible after a day, they are not dry enough.
- Use nonstick cookie-sheets, glass baking trays, or your oven rack covered in a dishtowel (make sure it can't catch fire!) Food should be spread thinly without overlap
- All foods should be sliced as thinly and evenly as possible to speed drying.
- Dryness is determined by bending foods. Unless otherwise noted, they should not be brittle and snap but retain enough moisture to bend without feeling wet. Test when foods have cooled, not directly from the heat source.

## The Different Methods of Indoor Dehydration

### Food Dehydrator

Electric food dehydrators come with instructions for use. They have a built in fan, and many have a set of trays that rotates to dry food evenly.

### Home Oven

Both an electric and a gas oven will work. In many gas ovens, the pilot light alone is enough to dry food. The oven door should be propped open with a wooden spoon to allow air circulation.

### Wood Stove

A wood stove presents a source of constant, even, low heat-perfect for dehydrating. We have had success with hanging racks suspended several feet above the stove, a foot or two below the ceiling. It is also possible to string food on a long piece of twine and hang it dangling down above the stove. If you choose to string, you must make sure to separate the individual slices of food regularly so that they do not mold where they are touching.

## Hints for Specific Foods

### Fruits

Apples dry very well. Peeling is optional. Core and slice. They are dry when their consistency is like leather. Soft Fruits (peaches, apples, berries, etc) can be dried into fruit leather. Peel or not, cut small. Measure fruit, add 1 ½ T sugar or honey for each cup of fruit. Bring to a boil, cook gently until tender. Purée when cool. Line cookie sheets with foil/freezer wrap on wet cookie sheets, so the paper will cling. Oil paper. Pour fruit pulp into center of sheet, spread ¼" deep. To store, leave sheet of leather on paper and wrap into a roll.

### Meat

Dry meat is roughly ¼ the weight of its fresh state. It keeps well in heat.

Use *lean* beef or venison only. Lean is important, because fats do not dehydrate. Partially freeze the meat to make thin slicing easier. Cut with the grain in strips as long as possible, 1" wide and ¼ - ½" thick. Season with no more than 1 teaspoon salt per pound of meat. You can make a marinade of Worcester and Soy Sauces with pepper, garlic, and any other herbs. If drying in an oven, make sure to line the bottom of the oven with foil to catch drips. Home-dried jerky should be drier than store-bought, which is typically packaged with a small bag of desiccant to absorb moisture. Jerky should be difficult to bend. If unsure, store in freezer until the program begins.

### Vegetables

- Beets: use small beets. Slice thinly or grate coarse on veggie grater.
- Cabbage: remove outer leaves, quarter, core, shred coarsely. Steam 8-10 min. Spread evenly on the tray, no more than ½" thick. Stir regularly. Cabbage does not keep well even when dried. Store in freezer until departure.
- Carrots: slice thinly in rounds. Superb dried vegetable!
- Onions slice thinly, spread thinly on the tray. Dries well for trips; small amount of veggie gives lots of flavor.
- Bell Peppers: Split, core, remove seeds, slice thinly.
- Potatoes and Parsnips: slice thinly and rotate evenly on trays- you may need to flip slices over.
- Squash peel, de-seed, and slice thinly. Great for soups
- Sweet potatoes: Slice as for squash. You do not need to peel. Dry when leathery.
- Greens: Kale: stalks should be removed. Place in a single layer on a tray, dehydrate until brittle and crispy. Crumble into small bits/powder. Spinach: should be blanched for 2 minutes, then dry as for kale (you do not need to remove stems).

Good Luck!