

Food Drying - “DIY”

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Gardening season is now in full swing and in a short time, many of you will be faced with the burning question, “What on earth am I ever going to do with all these _____?” You can fill in the blank with the appropriate item, but most likely tomatoes will be near the top of this list. The “Do It Yourself” (DIY) phenomenon which has touched just about every part of our lives offers an interesting, enjoyable, and rewarding solution to this problem.

Food dehydration or more simply “drying” has been a recognized method of preserving food and preventing spoilage for thousands of years. Even our ancient ancestors probably relied on naturally dried fruits, especially berries, as a source of food. Food drying has made tremendous technological advances since these early days and we understand a great deal more about its complexities than we ever did before. In spite of the science that goes into food drying, much of it is still an art. Now, thanks to well-designed and efficient home food dehydrators, almost everyone can dry the fruits and vegetables from their backyard garden with surprisingly good results. All you need to get started is a ready-to-use food dehydrator that is available from many hardware stores (or on-line) at a reasonable cost. There are some folks who like to make their own dryers, but this isn’t nearly as convenient and the results can often be less than desirable. What I personally like about the commercially available dryers is that all of the design features are already built in. They are also easy to clean and disassemble when needed. Some dryers even offer the option of adding extra trays if you wish to expand their drying capacity.

Prior to shopping for a home food dehydrator, you need to consider a few basic facts. Be sure to buy a dryer that has sufficient power to provide enough heat for the anticipated tasks. If you plan to do lots of drying, you should consider buying a dryer with a more powerful heating unit. Food dryers are just like hair dryers - the higher the wattage, the more heat they produce. You should also get a dryer with a good air circulation fan in it. Air movement and temperature are two of the key factors in drying any material, so a high wattage dehydrator with a good fan is the way to go. I have three home dryers that I use: two models by NESCO/American Harvest and one by Excalibur. All three work quite well, while offering somewhat different features. The ultimate choice of dryers is a personal one.

After purchasing a dryer, the first thing to do is sit down and read the instruction booklet thoroughly. As a typical male, I know that there is an overwhelming temptation to forego this step and head right to the actual use of the device. However, I learned a long time ago that instructions are generally provided for a good reason.

You may want to do a few practice runs to get the feel of things before you actually start drying produce from your own garden,. Apples are an excellent choice for this purpose. You can buy a few apples; wash, peel, and core them; and slice them into about quarter inch (0.5 cm) thick rings using a paring knife or kitchen slicer. Some folks prefer not to peel them. This makes very little difference to the drying process, but you may find the peels become a bit hard or tough which can detract from the enjoyment of eating the dried apple rings. Some produce, like apples, may turn slightly brown during drying - this is nothing to worry about. Browning can be reduced or prevented by dipping the apple rings in lemon juice or a solution of ascorbic acid (Vitamin C). You should arrange the apple rings on the dryer trays so they are not touching and dry them at about 55°C (i.e., 130°F). It's a good idea to rotate the dryer trays or racks periodically, in case there is some uneven drying. Flipping the rings over will also aid in their drying. After about five or six hours, the drying should be complete. The doneness can be tested by bending the rings. They should feel dry and leathery while being spongy and flexible. If you are in doubt as to whether they are done, simply give them some additional time in the dryer and recheck them. After they have cooled, you can store the dried apple rings in an airtight container for future use as a snack or as an ingredient in a recipe. Once you have mastered the basics of food drying, you can become more adventurous and try a wide variety of food items.

Much of home drying is a trial-and-error process. High-moisture items such as tomatoes will take considerably longer to dry than apple rings (up to 24 hours compared to 5 or 6 hours for apple rings). Be sure to keep a notebook record of what you have done and label each batch of product you dry so that you can refer back to how you dried things at a later date, if necessary. It's a good idea to purchase one or two good books on the subject to give you some advice on what to do (and more importantly, what not to do). You will also find recipes on how to use your dehydrated foods so that you can enjoy the bounty of your garden throughout the long winter months.

Here are some pointers:

DO's:

- Buy a commercial dryer that will meet you anticipated drying needs.
- Buy a dryer with a higher wattage rather than a low wattage.
- Read the instructions that come with the dryer.
- Experiment with some economical material (such as apples) at the start.
- Purchase one or two books on home drying to assist you.
- Dry products at recommended temperatures even if they seem a bit low.
- Be sure that your product is thoroughly dry before storing it away.
- Store dried products in a cool, dry, dark area.
- Follow the manufacturer's recommendations for usage and cleaning.
- Have fun and enjoy the food drying experience.

DON'Ts:

- Don't rush the drying by using higher temperatures than recommended. (This can actually slow the drying process by creating a tough surface layer).

- Don't under-dry the product. (This risks having mold growth later).
- Don't use any product that you feel might not have been properly dried. (When in doubt, throw it out).
- Don't dry foods like onions and garlic inside your house. (Do this in the garage!!!)



Excalibur Dryer with front panel removed to show its nine drying racks.



NESCO Gardenmaster Dryer with lid in place and six stacked drying trays.
(More trays can be added if desired)