

Food drying returning as lifestyles become simpler

Drying fruits and vegetables is probably the oldest form of food preservation known. It is nature's own method of preserving, and primitive man, foraging for his food supply, probably stumbled upon many edible dried foods which became part of his diet.



Doris Thomas

Homestead Notes

Many of you recall that your grandmothers dried foods successfully, but with the advent of successful canning and freezing methods, most drying, with the exception of herbs and teas, went by the wayside. Now there is renewed interest in this form of food preservation.

Doris Thomas, Lancaster County Extension home economist, says the energy shortage is one reason people are interested in drying. With the high price of preserving food she said that drying provides one alternate method. Furthermore, she said that with many people preferring a simpler way of life, drying food is a natural part of it. And, she adds, dried foods are excellent for camping and backpacking which are enjoying ever-increasing popularity.

In a recent educational meeting on food drying, Doris emphasized that there are no precise directions for drying foods. She said, "You will have to use the trial and error method to see what works for you." Nevertheless, the Extension Service has prepared an information sheet to provide some technical assistance.

Doris explained that there are three methods of drying foods - sun drying, which is not recommended in Pennsylvania or in Lancaster County because of the high humidity; using a dehydrator, which is fairly inexpensive; or oven drying.

Doris emphasized, "You don't need to invest in expensive equipment to dry food for your use." A dehydrator can be built fairly inexpensively, and requires a small source of heat - usually lightbulbs. When using the oven for drying, a wooden rack can be built to hold the fruit and vegetables, or a piece of cheesecloth can be sewn to the oven rack itself. Other advantages of drying are that dried foods are easy to package, and require very little storage room, Doris said.

There are limitations, however. Drying food is time consuming. In oven drying for instance, the process may

take from six to eight hours, and while the individual doing the drying is not required to work with the food constantly during this time, he or she must be available to check it and keep a watch on it. Also, Doris says simply, "It is not the answer for all foods."

In drying foods, Doris said there are two important considerations. First, food value should be preserved so there is as much natural flavor as possible. Furthermore, she said, enzyme activity must be stopped. This means killing the micro-organisms present in food which will spoil it if they are allowed to grow and develop. Warmth, moisture, and oxygen promote the growth of organisms, so these three things must be considered.

For instance, Doris recommends that all vegetables be blanched before drying, just as they would be for freezing. Steaming may be used in some cases instead of blanching, but this stops the enzyme activity which would otherwise allow the food to continue to age in the freezer or in dried foods. This continued aging will cause vegetables to lose nutritive value and flavor.

Vegetables are easier to dry than fruits, and must be dried until they shatter with a hammer when hit. Fruits on the other hand, should be pliable.

Doris recommends that fruits be pre-treated to kill spoilage bacteria on the surface and to preserve color and nutrients. For indoor drying, the fruit should be washed carefully, then sliced or cut and dipped for five minutes in water with one teaspoon vinegar and ¼ cup liquid chlorine bleach per gallon. This solution kills surface bacteria, and Doris assured her audience that the chlorine bleach would not be tasted on the final product.

Light colored fruit should be further treated to preserve its natural color. This requires dipping it for five minutes in a solution of sodium bisulfite made with ½ teaspoon

sodium bisulfite per gallon of water. Sodium bisulfite can probably be purchased from a druggist.

Fruits will usually require from four to eight hours of drying in an oven. According to Doris, oven drying is probably the simplest method and most suitable for this climate. The procedure is: use the lowest thermostat setting on the oven and keep the oven door slightly ajar (one inch for electricity; six inches for gas) during the drying process. Make sure that trays are situated so that air can circulate around them. Food must be spread in single layers for best drying, and stirred about every half hour. Trays should also be rotated for evenly dried products. When dry, fruit will be pliable, vegetables brittle.

Doris said that dried foods will probably need to be conditioned before storing because all pieces will not be evenly dry.

To condition dried food, she recommends putting the pieces of fruit or vegetables in a heavy-duty plastic bag, or two regular bags, sealing them tightly and refrigerating them for at least one day for vegetables and two days for fruit. Any moisture that is left in the product will be distributed evenly. If vegetables are limp or fruits show moisture when cut and squeezed, they must be spread on drying trays again and heated in a 150 degree F. oven for 30 minutes. Then they should be cooled and packaged immediately.

Doris also recommends that a heat treatment be used for fruits and vegetables dried in the sun to destroy insects and insect eggs. Spread the food on trays no more than one inch deep and place them in a preheated oven at 150 degrees F., heating them for 30 minutes. Cool, then package right away.

Now the product must be stored in a moisture, vapor-proof material. Doris says glass jars, metal cans, and plastic freezer boxes are suitable choices for storage, but they must be absolutely clean. She suggests scalding, then be sure they are completely dry. Heavy-duty, neat seal plastic bags are acceptable as well. Coffee cans with snap-on lids may be used if the food is first packaged in plastic bags.

If the heat treatment for insects was omitted, Doris suggests putting packages of sun dried food into the freezer for 48 hours to kill any insects or eggs.

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Drying ended their 'no freezer' dilemma

EPHRATA, Pa.—For Scott and Pam Eberly, drying foods offered a solution to the problem of a bountiful garden and no freezer. Besides, Pam explained, "We are concerned with environmental problems and we like to experiment with alternatives."

So three years ago, after being overwhelmed by a large harvest, they began drying their own vegetables and fruits. And, they admit candidly, some attempts were successful and some were not.

They rated kidney beans and pinto beans as "definitely successful." These they attic-dried, after allowing the plant to dry completely, "until the beans rattled in the pod." Pam explained, "We hulled them and put them in the attic on wax paper."

One problem developed with the dried beans - weevils. So, with characteristic inventiveness, the Eberlys roasted the beans until they were "good and hot" in the oven, and killed the weevils. With that experience behind them they now say they heat up the beans as soon as they hull them. Not knowing a specific temperature, Scott said, "We just put it in the oven and let them get really hot."



Pam offers Scott a taste of the apples which they dried so successfully. Apples are one of their

favorites, but the variety of fruits and vegetables they have tried is large.

Scott and Pam, who live at 211 Lincoln Avenue, Ephrata, make it clear that they do not consider themselves experts at drying foods. They taught themselves the techniques by reading and by ex-

perimenting. They learned both from their successes and their failures, and relied heavily for information from a publication by "Mother Earth News" and other articles.

While they have had good results with drying foods in their attic, Scott also constructed a simple dehydrator to speed drying. His dehydrator has three trays, or shelves, covered with fiberglass screen. Scott warns that any other material may rust during use. He uses a 100 watt spotlight for the drying process, but says a regular heat element would give more uniform heat. They must be careful to rotate shelves for even heat distribution. The problem with a dehydrator is that, he said, "You must have it warm enough to dry the product but not hot enough to burn."

Two very successful fruits the Eberlys have dried are apples and pears. For the apples, they quarter them and slice them as uniformly as possible, leaving the skins on. Pam said, "We like to keep the skins on almost everything because it provides good roughage." The pears were the Kiefer variety, and Pam and Scott sliced them in uniform circles, including the core. The results, personally tasted by this reporter, were excellent.

The Eberly's have dried onions, which Pam says are very good in stew, but cannot be used in a recipe which calls for the onions to be sauteed. To prepare onions for drying, Pam said she quartered them and then sliced them as thinly as possible.

Tomatoes are another product they have dried, but Pam cautions, "You must slice them super thin. And we like to sprinkle them with salt, garlic salt and pepper."

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Photos and stories by SALLY BAIR, feature writer.