

Dry Foods Safely

Jackie Schrader, 4-H/FCS Agent III and Melanie Thomas, FCS Agent II



Drying is one of the oldest methods of food preservation. It is simple, safe and easy. Drying removes the moisture from food so bacteria, yeasts and molds cannot grow. It slows down the action of enzymes but does not inactivate them. The food becomes smaller and lighter since it has less moisture and is more compact. Typically these foods have more calories per serving because the process only removes water.

The optimum temperature for drying is 140 F. If higher temperatures are used, the food will cook on the outside and moisture will be trapped on the inside. This will eventually cause mold.

Most foods can be dried indoors using modern food dehydrators, counter-top convection ovens, or conventional ovens. Microwave ovens should only be used for herbs. Food dehydrators can be purchased from a variety of vendors with various costs depending upon their features. They contain trays for the food and have fans which create and distribute air flow. Conventional oven drying is slower than using a food dehydrator because these ovens do not have built-in fans for air movement.

Fruits can be sun dried in environments with low humidity. Conditions in the south (such as Florida) are **not** favorable. Vegetables and meats are low in sugar and acid which increases the risk for food spoilage.

Fruits should be pretreated to prevent darkening. For long-term storage, sulfuring is the recommended method. Some people cannot tolerate sulfites and must use other chemicals. If home-dried foods are eaten within a short period time, other pretreatments can be used such as ascorbic acid and fruit juice dips. Some fruits that dry well are apples, apricots, cherries, citrus peel, coconuts, dates, figs, nectarines, peaches, pears, and pineapples.



Fruit Leathers are homemade fruit rolls. They are made by pouring pureed fruit on a flat tray and then drying in a dehydrator. The advantages of making homemade fruit leathers are cost savings, the use of less sugar, and creation of various flavor combinations.

Vegetables should be blanched before drying to inactivate enzyme action which causes further ripening. Blanching also prevents the loss of color and flavor. This is a process of heating vegetables in boiling water or steam for a recommended period of time and then cooling them quickly. Some vegetables that dry well at home are carrots, corn, mushrooms, parsnips, potatoes, and onions.

Jerky is a lightweight, dried meat product that can be carried on hikes, camping and to other outdoor activities. Jerky can be made from almost any lean meat. Raw poultry is generally not recommended. Some meats must be treated to prevent diseases and all should be handled very carefully during the process. When preparing jerky from wild game, remember that wound location can affect the safety of the meat. USDA recommendations **must** be followed to assure a safe product.

All dried foods have a storage life which can range from four months to one year. Temperatures affect storage life and jerky can be refrigerated or frozen to extend shelf life. Rehydrating dried foods requires various soaking times for the best product.

Drying foods can be fun, economical and healthy for the family. Proper procedures are absolutely necessary to provide good quality and safe products. In order to ensure proper methods of home drying, be sure to follow USDA guidelines and procedures. Contact your local County Extension Office or USDA at www.usda.gov.

