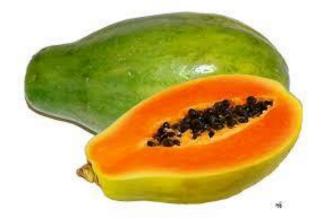
HOW TO MAKE DRIED FRUIT:

✓ PINAPPLE



✓ PAPAYA



✓ BANANA



Food drying is one of the oldest methods of preserving food for later use. It can either be an alternative to canning or freezing, or compliment these methods. Drying foods is simple, safe and easy to learn.

How Drying Preserves Food?

Drying removes the moisture from the food so bacteria, yeast and mold cannot grow and spoil the food. Drying also slows down the action of enzymes (naturally occurring substances which cause foods to ripen), but does not inactivate them.

Because drying removes moisture, the food becomes smaller and lighter in weight. When the food is ready for use, the water is added back, and the food returns to its original shape. Foods can be dried in the sun, in an oven or in a food dehydrator by using the right combination of warm temperatures, low humidity and air current.

In drying, warm temperatures cause the moisture to evaporate. Low humidity allows moisture to move quickly from the food to the air. Air current speeds up drying by moving the surrounding moist air away from the food.

Sun Drying

The high sugar and acid content of fruits make them safe to dry in the sun. Vegetables and meats are not recommended for sun drying. Vegetables are low in sugar and acid. This increases the risks for food spoilage. Meats are high in protein making them ideal for microbial growth when heat and humidity cannot be controlled.

To dry in the sun, hot, dry, breezy days are best. A minimum temperature of 86°F is needed with higher temperatures being better. It takes several days to dry foods out-of-doors. Because the weather is uncontrollable, sun drying can be risky.

Also, the high humidity in the South is a problem. A humidity below 60 percent is best for sun drying. Often these ideal conditions are not available when fruit ripens.

Fruits dried in the sun are placed on trays made of screen or wooden dowels. Screens need to be safe for contact with food. The best screens are stainless steel, teflon coated fiberglass or plastic. Avoid screens made from "hardware cloth." This is galvanized metal cloth that is coated with cadmium or zinc. These materials can oxidize, leaving harmful residues on the food. Also avoid copper and aluminum screening. Copper destroys vitamin C and increases oxidation. Aluminum tends to discolor and corrode. Most woods are fine for making trays. However, do not use green wood, pine, cedar, oak or redwood. These woods warp, stain the food or cause off-flavors in the food.

Place trays on blocks to allow for better air movement around the food. Because the ground may be moist, it is best to place the racks or screens on a concrete driveway or if possible over a sheet of aluminum or tin. The reflection of the sun on the metal increases the drying temperature. Cover the trays with cheesecloth to help protect the fruit from birds or insects. Fruits dried in the sun must be covered or brought under shelter at night. The cool night air condenses and couldadd moisture back to the food, thus slowing down the drying process. During the days of the performance of the drying test, we found the average values of the parameters temperature, humidity and ventilation thanks to the weather station of Piacenza. (Table 1)

	Medium temperature ©	Medium humidity (%)	Medium windspeed (km/h)
16/09/13	18°C	76%	5 km/h
17/09/13	19°C	40%	14 km/h
18/09/13	15°C	65%	6 km/h
19/09/13	18°C	66%	7 km/h
20/09/13	18°C	69%	6 km/h
21/09/13	19°C	64%	8 km/h
22/09/13	18°C	67%	7 km/h
23/09/13	19°C	41%	7 km/h

Table 1. Meteorological data of the Weather Station in Piacenza

Drying procedure

The drying treatment can be divided into three basic steps:

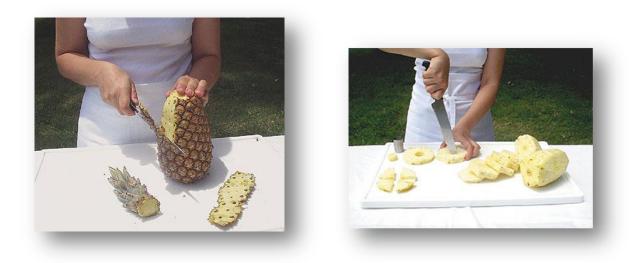
- 1. Preparing fruits
- 2. Drying fruits
- 3. Packaging and storing dried fruits

A. Preparing fruits

First, it is essential to wash your hands. Is an operation that allows physically remove dirt and most of the transient flora of the skin, one that is acquired while the direct contact with contaminated objects or products.



To prepare vegetables for drying, wash in cool water to remove soil and chemical residues. Trim, peel, cut, slice or shred vegetables according to the directions for each vegetable in the chart below. Remove any fibrous or woody portions and core when necessary, removing all decayed and bruised areas. Keep pieces uniform in size so they will dry at the same rate. A food slicer or food processor can be used. Prepare only as many as can be dried at one time.



B. Drying fruits

We listed the equipment used for the realization of the drying process:

• bamboo mat used to rest the slices of pineapple





• wooden trestles where rests the mat, in order to keep off the ground to dry the material to do



And now we proceed to arrange the pineapple slices on the mat of canes, arranging them next to each other, never overlapping.





We left our pineapple slices in the sun for 7 days, exposing from 9 am to 17 pm. Day 2 pineapple slices pineapple is presented as follows:



On day 4 slices of pineapple were presented as follows:





On day 7 the pineapple slices are presented as follows:

At the end of this process, we have "packaged" food dry in a glass vase. Recall that the dry foods are susceptible to contamination by insects and reabsorption of water: for these two fundamental reasons, it is absolutely necessary that they are packaged and stored correctly and immediately after treatment. So, after having made them cool completely, you should put the dried fruit in sealed containers, such as those that are used for frozen foods, or in previously sterilized dark glass jars, being careful not to crush the product.



C. Packaging and storing dried fruits

The deposit or storage of dry products should take place in a cool, dark and dry place. The quality of the products affected by the heat, and thus the temperature of the storage place helps to determine the retention time more is high, the shorter the duration. Most of the dried fruits can be stored for a whole year at a temperature of 15 ° C, for 6 months at a temperature of 26 ° C.

For better quality you should consume the dry product within the first 6-12 months .. In fact, food can deteriorate if stored properly during this period reabsorb moisture. The glass containers are excellent for storage, because the moisture collected inside is easily visible from the outside. Moldy food, however, must necessarily be discarded.