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How Drying Preserves Food[1]

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Drying removes the moisture from the food so that bacteria, yeasts and molds cannot grow and spoil the food. It also slows down the action of enzymes, 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.

The optimum temperature for drying food is 140°F. If higher temperatures are used, the food will cook instead of drying. When the food cooks on the outside and the moisture cannot escape, "case hardening" can occur. The food will eventually mold. Thus, the drying process should never be hurried by raising the drying temperature.

Low humidity aids the drying process. Food contains a lot of water. To dry food, the water must move from the food to the surrounding air. If the surrounding air is humid, then drying will be slowed down.

Increasing the air current speeds up drying by moving the surrounding moist air away from the food. To speed the drying time, increase the air flow.

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.

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