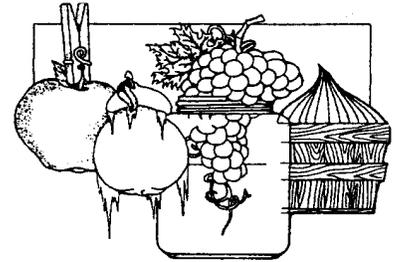


Quality for Keeps



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Information for those who produce and preserve food

Jerky provides chewy, portable snacks

Jerky isn't just for backpacking and because it doesn't require refrigeration, is useful for many outdoor activities. Jerky can be made at home from such lean meats as beef, pork, elk, rabbit, poultry, or venison, as long as the meat is in excellent condition and strict safety techniques are practiced.

Since raw meats are high in moisture and protein, they are prime targets for micro-organisms that can cause illness. In addition to micro-organisms in pork and wild game, *Trichinella* parasites must be destroyed. Freezing meat before slicing and marinating will help destroy *Trichinella* parasites, but will not destroy food-borne illness micro-organisms.

Cut meat into diced 6-inch thickness, or less, and freeze for at least 20 days at 5°F to destroy most parasites. Since freezing may not kill all *Trichinella* species, a pre-cooking or post-drying meat treatment is recommended for wild game.

To assure a safe, quality product follow these steps:

- Wash hands, equipment, and work surfaces with soap and hot water. Sanitize equipment and surfaces with a mixture of 1 Tbsp. bleach in a gallon of

water before and after use with raw meats.

- Start with lean meat in excellent condition. Trim visible fat. Avoid using meat from areas around a wound, which may have more contamination, particularly if the animal's gut was penetrated.
- Keep meats refrigerated or frozen until use. When making jerky, use ground beef and poultry within 2 days and red meats within 3 to 5 days, or freeze for later use. Always thaw meat in a refrigerator, not at room temperature. When marinating meat, store meat in a refrigerator, and do not save and re-use marinade.
- Test dehydrators or ovens with a thermometer while they are operating empty. Maintain a temperature of at least 145° F (62.5° C), throughout the drying process.
- Follow approved time and temperature guidelines for drying to make sure all bacteria are destroyed.
- Keep dried jerky separate from raw meats.

Preparation. Slice meat no thicker than ¼ inch to allow complete drying (partially freeze meat to make slicing easier). Trim all

visible fat to prevent rancidity. If a chewy jerky is desired, slice meat with the grain. Slice across meat grain if a tender, brittle jerky is preferred. If desired, a tenderizer can be used according to package directions. Oil, salt, spices and acidic ingredients such as vinegar, lemon juice, teriyaki sauce, soy sauce, or wine may be combined to make a marinade to add flavor and tenderness.



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Drying. After marinating, remove meat strips from marinade and drain on clean, absorbent towels. Arrange strips on dehydrator trays. If an oven is being used to dehydrate meat, place strips on wire racks, on baking sheets. Do not overlap slices. Preheat oven or dehydrator to 145°F.

Place racks in dehydrator or oven, and check after 3 hours. Continue dehydrating for 10 to 24 hours, until a test piece cracks, but does not break when it is bent. Strips that have been heated in marinade will dry faster. Once drying is completed, pat off any beads of oil with clean, absorbent towels and

cool. Remove strips from trays; cool completely.

If strips were not heated in marinade prior to drying, heat strips in an oven after drying. This is particularly important for pork and wild game to kill *Trichinella* parasites. Place strips on a baking sheet, without touching or overlapping. For strips originally cut ¼ inch thick or less, heat 10 minutes in an oven preheated to 275°F.

Making jerky from ground meat: Jerky can be made from ground meat using a special tool to form or shape ground meat into strips. Once dried, heat to an internal temperature of 160°F to elimi-

nate disease causing bacteria such as E-Coli.

Storage. Properly dried jerky will keep up to 2 months in a sealed container at room temperature. Once cooled, store jerky in glass jars with tight fitting lids; for longer storage, or to maintain flavor and quality, refrigerate or freeze dried jerky.

Sources:

<http://www.ext.colostate.edu/safefood/newsltr/v3n3s10.html>

<http://www.cals.uidaho.edu/edComm/pdf/PNW/PNW0632.pdf>

http://nchfp.uga.edu/publications/uga/prep_safe_jerky.html

Using agave syrup in jams and jellies

Agave syrup is appearing in supermarkets, and questions have been raised this summer about canning with agave syrup.

Agave nectar (also called agave syrup) is a sweetener commercially produced in South Africa and Mexico from several species of the agave plant. Agave nectar is sweeter than honey. It also tends to be less thick and flow somewhat more freely than honey. Agave nectar consists primarily of fructose and glucose.

Since Agave is similar to honey, (in that the main sugar type is fructose), follow guidelines for replacing cane sugar with honey when making jams and jellies.

Sugar helps in gel formation, contributes flavor to jelly, and at the concentration of 55 percent by weight, serves as a preservative.

Cane sugar or beet sugar, (both sucrose), is the usual source of sugar in jelly or jam. Corn syrup or honey can replace part of the sugar in jelly recipes. However, the flavor of the fruit may be overcome if too much honey or corn syrup is substituted.

To substitute honey or corn syrup for sugar use these amounts:

- For no-pectin-added jelly—corn syrup may replace ¼ of the sugar. Honey may replace ½ the sugar.
- For pectin-added jelly—(powdered pectin)—corn syrup may replace up to ½ the sugar. Honey may replace up to 2 cups of sugar.
- Liquid pectin—corn syrup or honey can replace up to 2 cups sugar.



Do not attempt to reduce the amount of sugar called for in traditional recipes. Reduction in the amount of sugar will interfere with gel formation and result in a product in which yeasts and molds can grow.

In short, try starting with ½ sugar and ½ agave syrup.

Source: University of Minnesota Extension, *Making Jelly* 2010.

<http://www1.extension.umn.edu/food-safety/preserving/jams-jellies/making-jelly/>

Shortcuts when freezing potatoes

Frozen potato products provide quick meal options. French fries, new potatoes, mashed potatoes, stuffed baked potatoes, hash browns, baked, mashed, or cooked sweet potatoes can be frozen.

Extra potato portions can be easily prepared when cooking a meal, and then frozen to save time preparing at a later time.

Prepare mashed potatoes and hash browns as usual, then freeze in pint- or quart-size airtight containers. Cook hash browns only to a slightly brown stage if they are to be frozen; then finish cooking when ready to eat. Use mashed potatoes to top casseroles, or reheat in microwave. Store in freezer for one to two months.

To freeze new Irish potatoes, choose smooth potatoes fresh from the garden. Peel, wash, then blanch for three to five minutes. Drain, cool, and package, leaving ½ inch headspace. Seal and freeze.

Before making French fries, potatoes should be stored at least 30 days. Mealy type potatoes (like Idaho's) are best for making French fries. Peel, wash and cut potatoes into 3/8-inch strips; rinse in cold water and dry thoroughly. Fry small amounts of potatoes in hot oil (360°F), for four to five minutes until cooked, but not browned.

Drain potatoes on paper towels; cool, package, and seal into airtight containers.

For best quality, use frozen French fries within three months. When ready to serve, finish browning in a 475°F oven, deep fry, or brown in a small amount of oil in a skillet.

For stuffed baked potatoes, cut potatoes in half lengthwise, scoop baked potato from skin, and mash with seasonings; then place back into skin. Wrap each potato in airtight packaging and freeze. To bake, unwrap completely and bake at 425°F in the oven for 30 minutes. Top with shredded cheese half way through baking.

Freeze sweet potatoes at least a week after they have been harvested. Wash. Cook similar size potatoes until almost tender. Cool potatoes, peel, cut, slice, or mash.

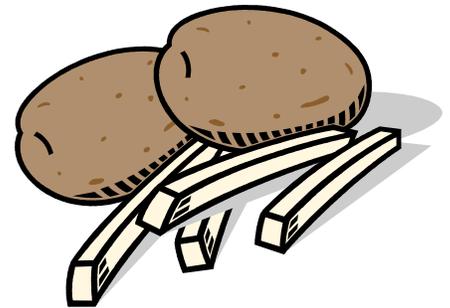
To prevent mashed sweet potatoes from turning dark during storage, add two tablespoons of orange or lemon juice to each quart of mashed potatoes.

Dip whole or pieces of sweet potatoes in a mixture of one quart water and ½ cup lemon juice to prevent darkening during storage. Pack potatoes into containers leaving ½ inch headspace. Seal and freeze.

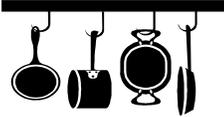
To prepare whole, baked sweet potatoes for freezing, wash and trim potatoes. Bake without peeling in a 350°F oven until slightly soft. Cool before removing skins, then wrap each potato in aluminum foil. Place foil-wrapped potatoes in a freezer bag, label and freeze. When ready to use, place foil-wrapped potatoes in oven at 350°F until finished baking.

Sources: NDSU Extension Service <http://www.ext.nodak.edu/extnews/askext/freezing/4425.htm>

National Center for Home Food Preservation http://nchfp.uga.edu/how/freeze/potato_new.html and http://nchfp.uga.edu/how/freeze/potato_sweet.html



THE RECIPE BOX



Jerky Marinade

- 1-1/2 to 2 lbs. lean beef, pork, or venison
- 1/4 cup soy sauce
- 1 Tbsp. Worcestershire sauce
- 1/4 tsp. pepper
- 1/4 tsp. garlic powder
- 1/2 tsp. onion powder
- 1 tsp. hickory smoke-flavored salt

Procedure: Combine all ingredients. Place strips of meat in a shallow pan and cover with marinade. Cover and refrigerate 1 to 2 hours, or overnight; (products marinated for several hours may be more salty than some people prefer). If you choose to heat meat prior to drying to decrease the risk of food-borne illness, do so at the end of the marinating time. To heat, bring the strips and marinade to a boil and boil 5 minutes before draining and drying. If strips are more than 1/4 inch thick, the length of time may need to be increased. Check the temperature of several strips with a metal stem-type thermometer to determine that 160°F has been reached.

Source: http://nchfp.uga.edu/publications/uga/prep_safe_jerky.html

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