

Quality for Keeps

Information for those who produce and preserve food

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Mushroom Mania Marks Spring

With the arrival of spring, "Quality for Keeps" food preservation newsletter begins a new season of safe and timely information on Food Preservation. Thanks to all our readers for their suggestions for this year's issues.

Long before gardens yield their bounty, mushrooms are popping up in woods and fencerows. **The most important rule of mushroom hunting is to positively identify each variety, since some varieties are poisonous.** Poisonous varieties include amantis, false morels, and little brown mushrooms. The Missouri Department of Conservation website has pictures of edible mushrooms, including the morel. For safety, check this site before hunting mushrooms: <http://mdc.mo.gov/discover-nature/outdoor-recreation/mushrooming/edible-mushrooms>. Work with an experience mushroom hunter, since mistakes can be fatal. When in doubt about the safety of the variety, let it be. Harvest only known varieties.

Selection. Mushrooms should smell fresh and earthy. Select mushrooms that are firm and evenly colored with tightly closed caps. Avoid mushrooms with soft

spots or bruising. Discard insect damaged mushrooms.

The thin membrane under the cap is known as the veil. A closed veil indicates a delicate flavor, while an open veil indicates a richer flavor. The veil opens as moisture is lost, concentrating the mushroom's essence. A brown or black veil indicates the mushroom is past its prime.



Storage. Wipe mushrooms gently with a damp cloth or soft brush to remove dirt, debris and insects. Do not wash before storage. Mushrooms absorb water, and the additional water hastens deterioration.

Refrigerate de-bugged mushrooms between 34-35° F. Wrap in a paper bag or waxed paper. Do not store in plastic bags, since this causes rapid loss of quality. Do not store near strong flavored foods like onions.

Refrigerated, fresh mushrooms will keep for 2 to 3 days. For longer storage, mushrooms should be frozen or dried.

Preparation. Gently rinse mushrooms in cool water and drain. Shake gently to remove excess water. Do not soak.

Do not peel mushrooms. Trim and discard any portions of the mushrooms that are discolored or infested with insects.

Cook morels in a stainless steel or nonstick pan. Using aluminum or iron pans may yield an unpleasant metallic taste.

Freezing Wild or Domestic Mushrooms. Small or medium mushrooms freeze best. Prepare and freeze the same day as picked or purchased. Handle carefully to prevent bruising; wash well in cold water and drain thoroughly. Do not soak. Cut off the base of the stems and sort for size. Leave whole, slice or quarter.

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Mushroom Mania *(Cont'd from cover page)*

Mushrooms should be blanched or steamed before freezing. Steam, blanch, or sauté mushrooms to inactivate enzymes that cause color and texture deterioration. Mushrooms that are frozen raw tend to turn black once thawed.

To blanch: Place mushrooms in boiling water mixed with either one teaspoon lemon juice or 1-1/2 teaspoons citric acid to each pint of water. Bring water to a boil. Add morels to the boiling water and bring water back to boil. Boil 3 minutes. Remove morels from water and drain.

Blanch other whole mushrooms 5 minutes, buttons or quarters for 3-1/2 minutes and slices for 3 minutes. Cool promptly; then package in freezer containers, leaving 1/2-inch headspace. Seal, label and freeze.

To steam: Mushrooms to be steamed have better color if given an anti-darkening treatment first. Dip for 5 minutes in a solution containing 1 teaspoon lemon juice or 1-1/2 teaspoons citric acid to a pint of water.

Use a pot with a tight lid and a basket that holds food 3-inches above bottom of pot. Put 1-2-inches of water into pot and add 1 teaspoon lemon juice per pint of water; bring to a boil. Add mushrooms to basket in a single layer and place in pot. Cover. Steam whole mushrooms for 5 minutes, button or quarters for 3-1/2 minutes, and slices for 3 minutes. Cool promptly, drain, and pack into freezer containers, leaving 1/2-inch headspace. Seal, label and freeze.

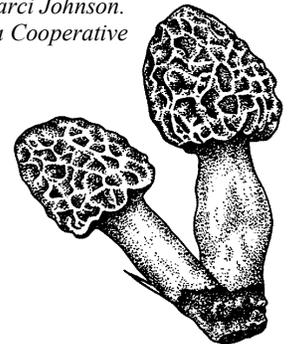
To sauté: Heat small quantities of mushrooms in butter or margarine

in an open fry pan until almost done. Set pan of mushrooms in cold water to cool promptly. Pack into containers, seal and freeze.

The most commonly cultivated varieties are portabella, shiitake, cremini and white mushrooms. More exotic varieties include: morels, oyster, beech, enoki and maitake.

Source: GH 1507 Quality for Keeps: Freezing Unusual Fruits and Vegetables. University of Missouri Extension.

Source: FNH-00020 Morel Mushrooms: A Guide for Selection and Use Mushroom by Julie Cascio and Marci Johnson. University of Alaska Cooperative Extension. 2011.



Mushroom Varieties

White Mushrooms – Most common variety. Plump, dome-shaped with smooth texture and mild flavor. All-purpose.

Chanterelle – Frilly, trumpet-shaped mushrooms. Yellow-orange types have an apricot-like flavor and aroma. Black types taste of musky earth and hot peppers. Most are firm and take longer to cook. Do not brown as they will toughen. Use in stews and casseroles.

Cremini – Khaki colored with slightly sweeter, more intense flavor. Use like whites.

Enoki – A Japanese mushroom that looks like matchsticks with a 1/4-inch cap. Enoki are white or ivory with a delicate flavor and a crunchy texture. Use raw in salads or stir-fry quickly.

Oyster – Soft, gray color, and oyster shaped. Oyster mushrooms have a firm texture and are often used creamed or braised with pork, veal or game. Add at end of cooking time to protect flavor.

Morels – Brown in color, honeycomb shaped, earthy taste and meaty texture. Do not eat raw, since they may cause a stomach upset.

Porcine – A fat brown/beige, French/Italian mushroom with a flavor of both wine and nuts. Best lightly sautéed.

Shiitake – An Asian mushroom with a large umbrella shape and rich flavor. Best added to soups, stews, sauces and stir-frys.

Trumpets – A large, white hybrid of the oyster mushroom with a delicate, frilly, trumpet shape. Similar to an Oyster but more earthy.

Stamp Out Freezer Burn with Proper Packaging

When it comes to freezing, proper containers can guarantee a safe, tasty product, while the wrong containers can ruin the hard work and time that went into growing and freezing food. Containers matter, a lot.

Proper freezer containers and packaging materials will protect flavor, color, moistness and nutritive value of food from the dry climate of the freezer.

Do not freeze fruits and vegetables in containers with a capacity over one-half gallon. Foods in larger containers freeze too slowly to result in a good product.

In general, packaging materials must have certain characteristics:

- **Moisture-vapor resistant.** Neither air nor moisture should get in or out of the package. Plastic film that wraps fresh meat from grocery stores are not moisture or vapor resistant, and must be overwrapped with freezer paper, heavy duty foil or placed in freezer bags. In the freezer, movement of air or moisture in or out of packages can result in freezer burn, which leaves foods dry, tasteless and gray. Freezer burn is the result of loss of liquid from surfaces of the frozen food. Freezer burn is almost always a packaging problem.
- **Durable and leak-proof.** Packaging should not develop cracks or leaks as frozen food expands upon freezing. Packaging should resist pokes

from odd shaped or boney foods. Lids should be tight.

- **Not become brittle and crack at low temperatures.** Storage at 0° F should not affect soundness of packaging. Cottage cheese containers, for example, tend to crack in the freezer, and should not be used to store frozen foods.
- **Resistant to oil, grease or water.**
- **Protect food from absorption of off flavors or odors.** Some foods, like dairy foods, ice cream, butter, and cream pies, easily absorb strong odors from onions, bell peppers and jerky. Good packages will keep these aromas and odors separate. Thus, foods with strong aromas, such as onions, green bell peppers, and jerky are best if frozen in freezer jars with tight metal lids.
- **Easy to seal and label.**

There are two types of packaging materials for home use: rigid containers and flexible bags or wrappings.

Rigid Containers. Rigid containers made of plastic or glass are suitable for all packs and are especially good for liquid packs. Straight sides on rigid containers make frozen food much easier to get out. Rigid containers are often reusable and easily stackable. Cardboard cartons for cottage cheese, ice creams and milk are not moisture-vapor resistant. Do not use for long-term freezer

storage, unless they are lined with a freezer bag or wrap.

Regular glass jars break easily at freezer temperatures. Use only wide mouth dual purpose jars made for freezing and canning. These jars have been tempered to withstand extremes in temperatures. The wide mouth allows easy removal of partially thawed foods.

Covers for rigid containers should fit tightly. If they do not, reinforce the seal with freezer tape. Freezer tape is specially designed to stick at freezing temperatures.

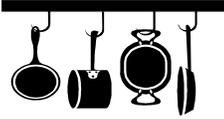
Flexible Bags or Wrappings. Flexible freezer bags, freezer paper and heavy-weight aluminum foil are suitable for dry packed products with little or no liquid. Bags and wraps work well for foods with irregular shapes. Bags can also be used for liquid packs.

Plastic freezer bags are available in a variety of sizes. Closures may be twist, fold and tie, or may be zipped or pressed to seal. Regardless of type, press to remove as much air as possible before closing.

Source: Adapted from "So Easy to Preserve", 5th ed. 2006. Bulletin 989, Cooperative Extension Service, The University of Georgia, Athens.

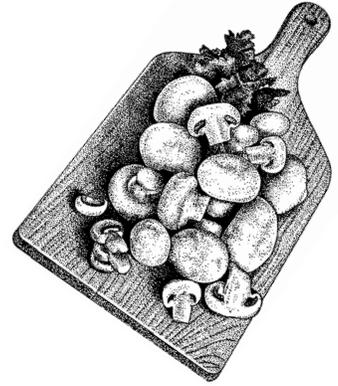


THE RECIPE BOX



Marinated Whole Mushrooms

- 7 lbs small whole mushrooms
- 1/2 cup bottled lemon juice
- 2 cups olive or salad oil
- 2-1/2 cups white vinegar (5 percent)
- 1 tbsp oregano leaves
- 1 tbsp dried basil leaves
- 1 tbsp canning or pickling salt
- 1/2 cup finely chopped onions
- 1/4 cup diced pimento
- 2 cloves garlic, cut in quarters
- 25 black peppercorns



Yield: About 9 half-pints

If this is your first time canning, it is recommended that you read: *Steps to Success in Home Canning (GH 1452)*
<http://extension.missouri.edu/p/GH1452>

Procedure: Select very fresh, unopened mushrooms with caps less than 1-1/4 inch in diameter. Wash. Cut stems, leaving 1/4-inch attached to cap. Add lemon juice and water to cover. Bring to boil. Simmer 5 minutes. Drain mushrooms. Mix olive oil, vinegar, oregano, basil and salt in a saucepan. Stir in onions and pimento and heat to boiling. Place 1/4 garlic clove and 2-3 peppercorns in a half-pint jar. Fill jars with mushrooms and hot, well-mixed oil/vinegar solution, leaving 1/2-inch headspace.

Adjust lids, process half-pint jars in boiling-water canner for 20 minutes at 0-1,000 feet altitude, or for 25 minutes at 1,001-3,000 feet altitude.

Source: "Complete Guide to Home Canning," Agriculture Information Bulletin No. 539, USDA, revised 2009.

Quality for Keeps, published monthly, April through October, is made available to residents of East Central, Southeast and Urban regions in Missouri by their Extension Council. Contact your county Extension office to subscribe, or visit our website: <http://missouri.extension.edu/franklin>. Questions may be directed to:

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