

MORE MUSHROOMS, PLEASE!

With over 2,500 varieties of mushrooms available, there's an earthy flavor and texture to satisfy any palette. According to Egyptian hieroglyphics, mushrooms were a plant of immortality. Other civilizations practiced mushroom rituals, believing that mushrooms produced super human strength or power. During early cultivation, France was the leader, growing mushrooms in special caves. Mushroom production began in the United States in the late 19th century. Since then in-depth mushroom growing information has become available that has allowed many successful Mushroom Farms to be developed.

Growing Mushrooms

Mushrooms are fungi that grow from microscopic spores. Most white mushroom farmers purchase spawn that is grain or seed inoculated with spores. The spawn is placed in special compost inside houses where heat and humidity can be controlled. The growth process of white mushrooms, harvesting of the mushroom caps, which are the fruit of the plant, and shipping, takes about four months. Other varieties are cultivated on oak logs or in automated systems.

The most commonly cultivated varieties are portabella, shiitake, crimini and white mushrooms. The more exotic varieties, such as morel, oyster mushroom, beech mushroom, enoki and maitake are increasing in popularity as people learn to use them.

Nutritional Value

Mushrooms contain a variety of nutrients, including a small amount of B vitamins. A ½-cup serving contains only 9 calories. Common mushrooms are higher in potassium than exotics and shiitake are higher in selenium. Researchers in the US are just beginning to look into the role that mushrooms may play in disease treatment and prevention.

Selection and Storage

Knowledgeable mushroom experts pick wild mushrooms. However, for safest results forage through your local grocery store. Select mushrooms that are firm and evenly colored with tightly closed caps. 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.

The average shelf life of mushrooms depends on the variety. A brown or black veil indicates the mushroom is past its prime. For optimum results, The Mushroom Council recommends refrigerating mushrooms in a porous paper bag. Avoid airtight containers because moisture condensation causes the mushrooms to spoil rapidly. Mushrooms take up strong odors, so store away from onions or garlic.

To clean mushrooms, gently wipe with a damp cloth or soft brush. Or, rinse with cold water and pat dry with paper towels. Avoid soaking mushrooms. Mushrooms bruise easily so they should be handled with care.

Preparation

Mushrooms can be prepared many ways, including grilling, roasting, baking, frying, sautéing, stuffed, and as a topping. With the Asian influence, soy sauce, ginger, lemon grass, and sesame seeds enhance the natural flavorings. Mediterranean influences of olive oil, garlic, thyme and lemon also bring out the richness of mushrooms. Frequently richer, woody tasting mushrooms like shiitake, crimini, or oyster are combined with more mellow flavored mushrooms.

Some mushrooms can be eaten raw. Pleasant tasting mushrooms include the common white, crimini, and portabella. The mild, crunchy enoki can be added to soups or salads uncooked. The possibilities are endless, so try adding mushrooms to garlic bread, baked potatoes, scrambled eggs, and your favorite entrée and side dish recipes.

Equivalents

1 pound of white or crimini = 35 medium sized mushrooms = 5 cups sliced = 2 cups sautéed;
4 ounces Shiitake without stems = 1½ cups sliced or chopped;
6 ounces trimmed Portabella = 2¼ coarsely chopped.

To sauté

Rinse and trim the stem bottom thinly. Slice 8 ounces of mushrooms and cook in 1 tablespoon of oil or butter over medium heat until golden, about 3-4 minutes. Caps, with the stems removed, can be sautéed the same way, turning once.

To microwave

Place 8 ounces of thickly sliced mushrooms in a microwaveable bowl. Cook for 2-3 minutes on high, stirring once.

To roast

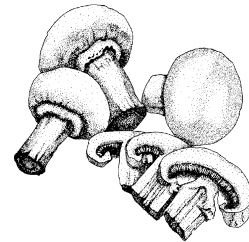
In a shallow baking dish, toss 8 ounces of mushrooms with 1 tablespoon of oil. Roast at 450°F for about 20 minutes or until golden brown. Stir occasionally.

To grill or broil

Light brush larger capped mushrooms like portabellas or shiitakes with oil; season with salt and pepper. Grill 4-6 minutes on each side, brushing once.

To freeze

Mushrooms do not freeze well. You may however, sauté the mushrooms first, place them in an airtight container and use within two months.



For More Information

- American Mushroom Institute. *Growing Mushrooms*, www.americanmushroom.org/
- Fischer, D. & Bessett, A. **Edible Wild Mushrooms of North America: A Field to Kitchen Guide**. University of Texas, 1992.
- The Mushroom Council. *All About Mushrooms*, www.mushroomcouncil.com/
- Pennsylvania State University. *Tasty Wild Mushrooms*, aginfo.psu.edu/PSP/03psp/03128b.html
- University of Minnesota *Herbarium Fungal Collection*, <http://fungi.umn.edu>

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Mushroom Spotlight

Beech. Petite, with all white or light brown caps, the Beech has a crunchy texture and a mild, slightly sweet, nutty flavor. They compliment chicken or fish dishes well and are great with other vegetables in a stir-fry dish. Add last to maintain the crisp texture.

Chanterelle. The chanterelle mushroom is trumpet-shaped and ranges in color from bright yellow to orange. Chanterelles have a delicate, nutty and sometimes fruity flavor and chewy texture. Chanterelles are not widely cultivated in the United States so are usually imported from Europe. They tend to toughen when overcooked, but are delicious as a side dish or as an addition to other foods.

Crimini. The crimini, or Italian brown mushroom, is similar in size to the common white mushroom. Crimini have a dark brown cap, slightly firmer texture, and an earthier flavor. Refrigerate and use within 5-7 days. Sauté crimini mushrooms with meat, game and vegetables or substitute in place of white mushrooms.

Enoki. The Japanese mushroom, enoki, grows in clusters of long, spaghetti like stems that are topped with tiny white caps. (The wild form has orange-brown, shiny caps.) Cut the stems away from the roots at the bottom and separate before using. Refrigerate and use within 14 days. The crunchy texture and mild, almost fruity taste make them good in raw salads or on sandwiches, but they can be gently sautéed, stir-fried, or chopped and cooked in polenta.

Maitake. The maitake, or hen-of-the-woods, is a cluster of dark, feathery fronds. They have a deep mushroom flavor, with subtle seafood undertones. Refrigerate and use within 7-10 days. To tenderize the firm texture, cook them long and slow. They are full bodied when grilled or sautéed.

Morels. Morel mushrooms are cone shaped with sponge-like caps. Depending on the season morels can be black, brown, yellow, beige or white. Morels have an earthy, nut-like flavor and tender texture. Refrigerate and use within 10-14 days. Morels are best combined with cream or white wine sauces or mildly flavored meats. They range in size from petite to jumbos, which may be stuffed with sausage or crabmeat.

Oyster. Oyster mushrooms are fluted and light brown, yellow or gray. They resemble oyster shells in shape. Refrigerate and use within 5-7 days. Because of their delicate flavor and velvety texture, they are best cooked with chicken, veal, pork and seafood dishes. They are also good sautéed or added to soups and sauces.

Portabella. Portabella, or portobello mushrooms may grow up to six inches in diameter. Because the brown caps are so large, they have a dense, chewy texture and a deep, meaty flavor. Refrigerate and use within 7-10 days. Both the caps and stems are flavorful and can be used as a vegetarian entrée. Grill with a little olive oil and seasonings or serve whole in sandwiches, appetizers or entrees. Slice and add to pasta dishes or as a pizza topping.

Porcini. Porcini, or cepe mushrooms have a spongy, taupe-colored cap. They range in size from 1-10 inches. They have a rich, smoky flavor making them excellent with meat and chicken. It is one of the few mushrooms that is still grown in the wild, so they are often more expensive to purchase.

Shiitake. Shiitake are very popular in Asian cuisine because they keep their shape and texture during cooking. They have a broad umbrella-shaped, dark brown cap. Their soft, spongy texture and distinctive, smoky flavor makes them a good substitute for meat in stir-fries, sauces, pastas, soups, entrees and side dishes. Refrigerate and use within 14 days.

White. White mushrooms vary in color from creamy white to light brown. They range in size from small to jumbo. Their flavor intensifies with age and cooking. Refrigerate and use within 5-7 days. Serve raw or cooked in a variety of dishes.



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Mushroom Recipes

Mixed Mushroom Ragout

Compliments of The Mushroom Council

Yield: 10 servings

- 5 cups fresh mushrooms, sliced (Use a combination of portabella, crimini, shiitake or oyster.)
- 1 teaspoon garlic, minced
- 2 tablespoons olive oil
- ½ cup Plum tomatoes, seeded and diced
- ¼ cup chicken broth
- 2 tablespoons milk
- ¼ teaspoon salt
- pinch black pepper

In a medium skillet, heat oil over medium heat. Sauté mushrooms and garlic until golden, adding oyster mushrooms just before cooking is completed. Add remaining ingredients and simmer about 5 minutes. Garnish with chopped parsley.
Nutritional Analysis: 80 calories; 3g protein; 6g carbohydrate; 4g fat; 4mg cholesterol; 144mg sodium.

Mushroom Julienne

Compliments of The American Mushroom Institute

Yield: 6 servings

- 1 tablespoon margarine
- ¼ cup slivered almonds
- 1 tablespoon olive oil
- 1 cups green beans, sliced diagonally 1-inch, cooked al dente (2 minutes)
- 1½ cups mushrooms, thinly sliced
- ¾ cups red bell pepper, cut 1-inch julienne
- ¾ teaspoon crushed red pepper flakes
- ¼ cup + 2 tablespoons lemon juice
- ¼ cup fresh chives or green onions, chopped

In a medium skillet over moderate heat, melt the butter. Add the almonds and sauté until golden brown about 40 seconds. To the same skillet, add the olive oil, cooked green beans, peppers and mushrooms. Cook until tender, about 1 minute. Toss the crushed red pepper, lemon juice and chives until well mixed and heated through. Serve immediately.
Nutritional Analysis: 110 calories; 3g protein; 7g carbohydrate; 9g fat; 5mg cholesterol; 25mg sodium.



Stir-Fry Chicken with Mushrooms

Compliments of The University of Pennsylvania

Yield: 6 servings

- ¾ cup fresh mushrooms, sliced
- 1-cup broccoli, sliced
- ½ cup carrots, sliced on an angle
- ¾ cup celery, sliced on an angle
- ¼ cup bean sprouts
- ¼ cup green onions, chopped
- 2 cups pulled chicken meat
- 2 tablespoons cornstarch
- 1 cup low sodium chicken broth
- ⅛ teaspoon black ground pepper
- 3 tablespoons light soy sauce
- 2 tablespoons oil
- ½ teaspoon ginger
- ¼ cup almonds, blanched, sliced

In a medium skillet, heat oil over medium heat. Sauté broccoli and carrots for 3 minutes. Add the remaining vegetables and cook 3-5 more minutes. Stir in chicken and seasonings. Combine chicken broth cornstarch. Pour over the stir-fry and cook until the mixture thickens slightly. Adjust seasonings. Add nuts and mix well.
Nutritional Analysis: 320 calories; 27g protein; 21g carbohydrate; 15g fat; 55mg cholesterol; 630mg sodium.

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