

September is National Mushroom Month

The mushroom is a fungus that grows upon decaying organic matter. Fungi, including mushrooms, are incapable of producing their own food. They cannot use the energy of sunlight as green plants do. Their "food" consists of carbohydrates and proteins produced during the fermentation and decomposition of organic material.

The most commonly cultivated mushroom in the United States is *A. bisporus*. Its several strains vary in growth habit, color, yielding ability, and other characteristics. The most common variation occurs in color, and three groups; the whites, creams, and browns are recognized. Actually, the cultivated mushroom is a horticultural adaptation of the common field mushroom that is found in pastures and grassy places.

The main body of the fungus is the mass of fine, thread-like, white growth that can be seen throughout the composted material on which the mushroom is feeding. This mass of absorbing vegetative parts is called "mycelium." The edible part of the mushroom is the "toadstool" fruiting body or reproductive part of the plant.

The edible reproductive part consists of a stem and cap. "Gills," found on the underside of the cap, are arranged somewhat like spokes in a wheel. The gills bear multiple spores which start new plants. When the mushroom first appears above ground, it looks like a button, so the smaller harvested ones are called button mushrooms.

A spore is an asexual "seed" that contains no endosperm. In order to produce a plant, a spore must land on some kind of organic material that is in the right stage of decomposition to provide food for the germinating spore.

Mushrooms grow best in a moist, cool, well ventilated place. Temperatures need to be controlled within a range of 50-70°F. Relative humidity must be maintained above 70% or mushrooms may dry out and split.

Compared with the culture of other vegetables, the production of mushrooms is fairly complicated. Mushrooms are best grown indoors in trays or beds filled with an organic planting medium (compost). Horse manure has long been used, but other materials are suitable. Some materials that have been used alone or in combination with horse manure are alfalfa hay, corncobs, cornstalks, straw, sawdust, dried brewer's grains, and poultry manure. The following are the usual steps taken to grow mushrooms.

- **Composting** - Trays are filled with fresh compost, which is allowed to ferment at 140°F for 4-6 days (or until odor of ammonia disappears). Trays are then moved to a well-ventilated, 75-80°F room for "spawning" (planting spores).
- **Spawning** - Spawn is the propagating material for mushrooms. It contains spores mixed with spawning materials such as manure, tobacco stems, or grain. Spawn is most often purchased from specialty spawn makers. Spawn is planted either by the broadcast method or by planting in small pieces 1 1/2 inches deep at 10-inch intervals. With temperatures held at 75°F, the growth from the mushroom spawn spreads through the upper 3 inches of the bed of compost.
- **Casing** - After 2-3 weeks of growth, a 1-inch layer of "casing" soil is spread over the surface of the bed. Generally, a not-too-sandy loam is preferred. The casing soil helps hold in gasses.
- **Growing** - After casing, trays should be maintained at 50-62°F and kept sprinkled with water until the first tiny mushrooms appear in about 3-4 weeks. After that, watering is done only as needed.
- **Harvesting** - Picking may commence at the first signs of buttons, and last for 6-7 weeks or longer. Each mature mushroom is between 1 and 2 inches in diameter. Harvesting may be done daily or every few days, depending on sprouting.

Small home units may be started by purchasing ready-to-grow kits from major vegetable seed companies.

Source of the above information: James M. Stephens, Professor, Horticultural Sciences Department, Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville FL 32611.

2009 Day of Caring

This year's annual "Day of Caring" will kick off the United Way's funding campaign on September 15th this year. As in the past, PVAS will have lots of volunteer opportunities at the Yankauer preserve. This year's projects include pulling Japanese Stilt Grass, pulling weeds in the Butterfly Garden, weed control in the parking lot, mulching trails, and other tasks. The day will begin with a breakfast "Kick Off" for all volunteers at 7:30am at War Memorial Park in Martinsburg. Volunteers start coming to the preserve around 8:30 or 9 am for an orientation and to start working. Lunch will be provided by PVAS at Yankauer for volunteers working there, and there will be a dinner celebrating all of the participating volunteers' labors and assistance from 4:30 - 6pm at the Clarion Hotel in Shepherdstown. If you'd like to volunteer, please contact Tim Murphy at 304-876-8133 or timurf@comcast.net or Kristin Alexander at 304-676-3397 or PVASmail@aol.com. This is our opportunity to give the preserve its annual "facelift" so please come spend the day with us!

Topiary Garden Video Showing

The Berkeley/Jefferson County Master Gardeners will be showing a video on Topiary Gardens called *A Man Named Pearl* on Tuesday, September 15 at 7 pm at the WVU Tree Fruit Research and Education Center in Kearneysville.

A Man Named Pearl tells the story of Pearl Fryer who turned his ordinary suburban yard into a magical topiary garden that has thousands of visitors each year. The film also traces the story of his extraordinary life from being a small town sharecropper's son to an internationally acclaimed artist. Sponsored by the Berkeley-Jefferson Master Gardener Association, the film will be shown on Tuesday, September 15th at 7 pm at the WVU Experimental Farm in Kearneysville. The public is invited to share this film with the Berkeley-Jefferson Master Gardener Association.

For more information contact Melanie Files sfubar@verizon.net or telephone 304- 263-1956.

Beltsville Agricultural Research Center Tour

The Forum for Rural Innovation is sponsoring a bus trip to the Beltsville Agricultural Research Center on Thursday, November 4, 2009. The tour of the 7000 acre Beltsville Agriculture Research Center will cover a variety of agricultural topics (composting, honey bees, alternative fuels, food safety, parasitic disease, specialty crops & marketing). Registration forms available at www.loudounfarms.org under "Save the Date! November 4". \$35 registration fee includes transportation, snack and lunch. Pre-registration by October 21 required (space is limited). All participants must ride the bus. Bus leaves Purcellville at 7:30 a.m. and will return by 5:30 p.m. To register or for more information call 703-777-0426 or visit www.loudounfarms.org Sponsored by the Offices of Agricultural Economic Development and Cooperative Extension, Loudoun, Fauquier, Clarke, Frederick (VA), Jefferson & Berkeley (WV), Shenandoah & Potomac Headwaters RC&D.

Garden Tips

- Seed cover crop
- Turn compost
- Prepare root cellar
- Aerate lawn
- Divide peonies
- Build a high tunnel

Until next time ...Happy Gardening and Farming!