

## Item of the Week: MUSHROOMS



What is a mushroom? Mushrooms are not plants! Recently it has been discovered that they are more closely related to animals. But at one time, Fungi, including mushrooms, were believed to be close relatives of plants so much of their nomenclature (names for parts of the mushroom) are close to the names used for plant parts. It is the fruit (like an apple) of the mushroom "body" and contain mushroom "seeds" called spores. The body of the mushroom is called mycelium and its individual parts are microscopic. Since the body of the mushroom is usually dispersed over a relatively large area it is rarely noticed. In nature some species of mushrooms may have a body that spreads over hundreds of square miles!

Mushrooms are fungi, and are usually placed in a Kingdom of their own apart from plants and animals. Mushrooms contain no chlorophyll and most are considered saprophytes. That is, they obtain their nutrition from metabolizing non-living organic matter. This means they break down and "eat" dead plants, like your compost pile does.

The body of the mushroom stores nutrients and other essential compounds, and when enough material is stored and the conditions are right they start to fruit - produce mushrooms. It is a hidden kingdom. The part of the fungus that we see is only the "fruit" of the organism. The living body of the fungus is a mycelium made out of a web of tiny filaments called hyphae. The mycelium is usually hidden in the soil, in wood, or another food source. A mycelium may fill a single ant, or cover many acres. The branching hyphae can add over a half mile (1 km) of total length to the mycelium each day. These webs live unseen until they develop mushrooms, puffballs, truffles, brackets, cups, "birds' nests," "corals" or other fruiting bodies. If the mycelium produces microscopic fruiting bodies, people may never notice the fungus.

### Health Benefits of Mushrooms

Consuming fruits and vegetables of all kinds has long been associated with a reduced risk of many lifestyle-related health conditions.

Increasing consumption of whole, unprocessed foods, like mushrooms, appears to decrease the risk of obesity and overall mortality, diabetes, and heart disease.

They also promote a healthy complexion and hair, increased energy, and overall lower weight.

#### 1) Cancer

Mushrooms are high in antioxidants, just like carrots, tomatoes, green and red peppers, pumpkins, green beans, zucchini, and other whole foods.<sup>4</sup> Antioxidants are chemicals that get rid of free radicals, a type of chemical that can harm a person's body cells, potentially leading to cancer.

Selenium is a mineral that is not present in most fruits and vegetables but can be found in mushrooms. It plays a role in liver enzyme function, and helps detoxify some cancer-causing compounds in the body. Additionally, selenium prevents inflammation and also decreases tumor growth rates.

The vitamin D in mushrooms has also been shown to inhibit the growth of cancer cells by contributing to the regulation of the cell growth cycle. Placing freshly cut mushrooms in the sun significantly increases their vitamin D content. The folate in mushrooms plays an important role in DNA synthesis and repair, thus preventing the formation of cancer cells from mutations in the DNA.

## 2) Diabetes

Studies have shown that people with type 1 diabetes who consume high-fiber diets have lower blood glucose levels and people with type 2 diabetes may have improved blood sugar, lipids and insulin levels.

One cup of grilled portabella mushrooms and one cup of stir-fried shiitake mushrooms both provide about 3 grams of fiber. Fiber also benefits the digestive system and reduces the risk of heart disease and metabolic syndrome.

The *Dietary Guidelines for Americans* recommend 21 grams to 25 grams a day of fiber for women and 30 grams to 38 grams a day for men.

## 3) Heart Health

The fiber, potassium and vitamin C content in mushrooms all contribute to cardiovascular health. Potassium and sodium work together in the body to help regulate blood pressure. Consuming mushrooms, which are high in potassium and low in sodium, helps to lower blood pressure and decrease the risk of high blood pressure and cardiovascular diseases.

Additionally, an intake of 3 grams of beta-glucans per day can lower blood cholesterol levels by 5 percent. The stem of the shiitake mushrooms is a particularly good source of beta-glucans.

## 4) Immunity

Selenium has also been found to improve immune response to infection by stimulating the production of killer T-cells. The beta-glucan fibers found in the cell walls of mushrooms stimulate the immune system to fight cancer cells and prevent tumors from forming.

## 5) Weight Management and Satiety

Dietary fiber plays an important role in weight management by functioning as a "bulking agent" in the digestive system. Mushrooms contain two types of dietary fibers in their cell walls, beta-glucans and chitin. These increase satiety and reduce appetite. By making you feel fuller longer, they can reduce overall calorie intake.

## Types of Mushrooms

### Chanterelle

Prized for a fruity aroma, chanterelles range from yellow, orange, and brown to pale white or black. The funnel-shaped caps have wrinkles instead of gills on the underside, which should be washed quickly but carefully before using.



### White

The most common type, white mushrooms range in size from tiny—called button, which are harvested when young and have the mildest flavor—to jumbo, which can be stuffed and baked. Creamy white to pale tan, they have a firm texture and a delicate flavor.



### Oyster

Velvety and trumpet-shaped, oyster mushrooms have delicate brown, gray, or reddish caps on gray-white stems. They have a peppery flavor that becomes very mild when cooked. Young, small specimens are considered the best.



## Portobello

Up to 6 inches across, Portobello's have a big, steak-like taste and texture; in fact, the huge, umbrella-like caps are often eaten as vegetarian burger substitutes. Remove the woody stems before eating.



## Shiitake

With meaty tan to dark-brown umbrella-like caps, shiitakes have a distinctively smoky flavor and taste best when cooked. Available fresh or dried, they work well in stir-fries as the flavor doesn't fade next to ginger and garlic. Although the stems are too tough to eat and should be removed from the heads before cooking, you can use them to flavor stocks and sauces before discarding.



## Cremini

Similar to white mushrooms but with a firmer texture and deeper flavor, creminis are actually immature Portobello's. The button-like caps range from pale tan to rich brown. The stems are edible.



## Recipe (Source: Allrecipes.com)

### STUFFED MUSHROOMS

#### Ingredients:

12 whole fresh mushrooms	1/4 cup grated Parmesan cheese
1 tablespoon vegetable oil	1/4 teaspoon ground black pepper
1 tablespoon minced garlic	1/4 teaspoon onion powder
1 (8 ounce) package cream cheese, softened	1/4 teaspoon ground cayenne pepper



#### Directions:

1. Preheat oven to 350 degrees F (175 degrees C). Spray a baking sheet with cooking spray. Clean mushrooms with a damp paper towel. Carefully break off stems. Chop stems extremely fine, discarding tough end of stems.
2. Heat oil in a large skillet over medium heat. Add garlic and chopped mushroom stems to the skillet. Fry until any moisture has disappeared, taking care not to burn garlic. Set aside to cool.
3. When garlic and mushroom mixture is no longer hot, stir in cream cheese, Parmesan cheese, black pepper, onion powder and cayenne pepper. Mixture should be very thick. Using a little spoon, fill each mushroom cap with a generous amount of stuffing. Arrange the mushroom caps on prepared cookie sheet.
4. Bake for 20 minutes in the preheated oven, or until the mushrooms are piping hot and liquid starts to form under caps.

## Organic Produce

**BEETS:** Beets still remain a challenge due to curly top virus that impacts the plant leaves and bulb. Supplies will be limited for a few more weeks until growers move to lower elevation new fields that should be clean.

**BROCCOLI:** Supply has leveled off on broccoli and has become stable. Pricing is starting to come off and we are going to see promotable volume over the next several weeks.

**BUNCH CARROTS:** Supply has rebounded quite well and we are seeing much better quality.

**CABBAGE:** Supply has been stable and we are moving up to supply from Ohio, Wisconsin and Canada.

**CAULIFLOWER:** Supplies are starting to stable off but we are still seeing higher than normal pricing.

**CELERY:** Supply has been greatly affected by insect pressures out west. Supply has remained stable, but we are seeing occasional inbound issues.

**CUCUMBERS:** Supply will be greatly affected due to supply gaps out west and limited availability regionally.

**GREEN PEPPERS:** Steady supplies are available from Ohio and Pennsylvania.

**KALES:** Great supplies of kale currently, plenty of regional product from all over the Midwest available. We are currently sourcing from Georgia but we will see product coming on next week from Ohio and will have Michigan starting a few weeks behind that.

**LETTUCES:** Inbound quality on leafs have suffered due to the growing transition out west. We will rely heavily on the programs we have out of Canada and Vermont.

**RADISHES:** Supplies are impacted by weather out west as heat has really affected what supply is available.

**YELLOW SQUASH & ZUCCHINI:** We are seeing great supply on zucchini squash, with yellow being a bit more limited. Product is available out of Ohio on both, with Georgia supply coming on in the next couple weeks.

## Western Vegetables

**ARTICHOKES:** Artichoke numbers have been on the light side the last few weeks and look to continue to remain at those levels. Larger sizes are more scarce as the fields are yielding mostly 24/30ct. Quality remains excellent.

**AVOCADOS:** Improved volume out of Mexico; market stabilized but still at a strong price point as California supplies continue to be lighter than anticipated.

**BROCCOLI:** Volumes on broccoli are light this week as we are seeing a small gap due to product pulling forward the entire season. We expect numbers starting next week to rebound and be much better. Product in the fields is skewed more towards crowns than bunch. Quality has remained very good and field yields have been excellent.

**CAULIFLOWER:** Numbers on cauliflower have remained good the past few months, with a few blips. Weather has been ideal for growing conditions and field yields have been excellent. There was a large increase in numbers last week as product pulled forward. We are hoping to not see a big gap in volume in the coming weeks. Quality remains strong.

**CELERY:** The celery market remains somewhat depressed as there are many different regions harvestings right now. Quality and sizing remains very good and the yields in the fields are excellent. Weather has remained warm, and as a result, field yields have remained good all season. Going in to the fall, we will start looking at Thanksgiving celery numbers next month.

**ICEBERG LETTUCE:** Coming off a strong iceberg market the past few weeks, last week yielded a slide in the market. We are starting to see a rebound as we continue to be ahead in the fields with volumes on the light

side. Yields remain good and quality is strong. Moderate temperatures are expected through the next week. We expect the market to find its balance in the coming days. Both market and volumes are expected to remain steady through summer, up until transition to Huron in mid-late October.

**ROMAINE/ROMAINE HEARTS/MIXED LEAF:** The market on Romaine/Romaine hearts remains relatively strong, particularly for summer. We have been walking in sold out on romaine hearts, volumes going forward are expected to remain steady. We have been on top of the fields on all mixed leaf. Yields are quality remain good, which we expect to continue through the Salinas region. Reminder, in the fall, we do not transition through Huron, we go straight to Yuma mid to late October.

## Value-Added

Mann's precut items continue to be in short supply as they are struggling to fill orders due to increased demand and production issues. Organic Girl is prorating orders for Mache Blend, butter salads, baby kale, etc. due to raw product supply and production issues.

## Southern Vegetables

**BEANS:** Michaels Farms Ohio grown green beans; excellent quality and market price stable.

**CABBAGE:** Michaels Farms Ohio cabbage; market is stable.

**CORN:** Good supplies of Michaels Ohio grown sweet corn.

**CUCUMBERS:** Great quality coming out of Ohio and Michigan.

**GREEN PEPPERS:** Ohio and Michigan product.

**MUSTARD, COLLARD, TOPS & KALE:** All Michigan from Ruhlig Farms.

**ONIONS:** Western onion markets are firm and quality is good. As cooking season picks up, displays and promotions on onions will help push sales.

**POTATOES:** Idaho Russets are in good supplies. Markets are firm and quality is good.

**RADISHES:** Ohio grown; market coming down.

**TOMATOES:** Michigan grown from Leitz Farm.

**YELLOW & ZUCCHINI SQUASH:** Great supplies on a declining market; grown in Michigan and Ohio.

## Asparagus

Current supplies remain steady and market stable, but production is dropping in Peru due to cooler temperatures and central Mexico summer deal wrapping up. Costs will rise for a few weeks until we move into late September and early October; new areas in Peru and Mexico will start harvesting with much heavier volume. Promotion could follow very quickly. Organic asparagus will remain limited throughout the coming months and market costs will be very strong.

## Fruits

**APPLES & PEARS:** Supplies and quality of apples coming from Washington remain good and should continue for the foreseeable future. Organic apples and pears are going strong on the East Coast. Midwest apples are presenting new Crop Jonagolds, McIntosh, Cortland and Galas. New York crops are now Yielding Sweet Tango apples. Organic Fuji's new crop are coming out of California. Apple cider and dipped caramel apple have kicked off for the season!

**BLACKBERRIES:** California volume is picking up; market down as volume increases quickly with good opportunities for ads in September. California blackberries do have a natural tendency to show some degrees of red cell which is a characteristic of the varieties grown there. Organic blackberries situation improving also, and market costs moving slightly downward.

**BLUEBERRIES:** Overall supply beginning to tighten significantly as Michigan experienced rain issues further curtailing fresh supply and British Columbia showing end of season; Argentina not set to begin until end of September (2 weeks or so away). Pricing moving upward and will continued to do so as the volume tapers off and move into California storage fruit. Organic blueberries are mirroring conventional.

**CANTALOUPE & HONEYDEW:** Western cantaloupes remain in good supply, peaking on jumbo 9's. Quality is outstanding with high sugar brix; volume is peaking but will taper off by later September. Honeydews, with King of the West label, are outstanding quality and flavor. Organic production has peaked and markets are on the increase. Organic honeydews are in steady supply; pricing slightly off.

**CHERRIES:** Domestic season out of Northwest US is finished; import season on late November start.

**CITRUS:** Imported citrus looks good and tastes even better. Plenty of variety to choose from to pick up additional sales.

**CLEMENTINES:** Good volume out of Chile; cost has dropped. 3# bags continue to be the predominate retail pack.

**GRAPES:** Peak grape time out of Central California for September; key promotional month for grapes. Great new varieties of red and green seedless are available, such as Timco, Majestics Scarlet Royals in reds and Pristines, Stella Bella, Autumn Kings to join Sugarones in a green seedless. Black seedless will be one of the best grapes all year as the Autumn Royals start; promo this grape and your customers will not be disappointed. Organic supplies also very robust and prime ad item for this period of time.

**PINEAPPLES:** Steady supplies but some weather conditions in prime growing regions have tighten supplies through mid-October.

**RASPBERRIES:** Supply has hit a small gap and will be very limited over the next week to two weeks. Both conventional and organic product will be affected by this limited inbound supply.

**STRAWBERRIES:** The strawberry market has rebounded nicely and we are seeing much better quality and pricing that is allowing for promotional activity.

## Tropical Fruit

**BABY FRENCH BEANS:** Market still at low point; good supplies.

**KIWI:** Steady supplies.

**LIMES:** Prices has firmed up and increased on some sizes, with better demand this week. Size 200 and larger remained limited. Overall quality is very nice.

**MANGOES:** Conventional mangoes becoming limited as Mexico season comes to close; new crop out of Brazil available but costs are strong. Organic mangos also starting to jump significantly in price as the market continues to shrink. Would expect to see tight supplies on organic mangos through September with a month long gap beginning in October until imports start out of Brazil and Ecuador.

**MARIDOL PAPAYAS/ GOLD PAPAYAS:** Volume beginning to increase with hotter weather in growing region.

**STAR FRUIT:** Good supply; sizing ranging from 20/25ct.

**SUGAR SNAP PEAS/SNO PEAS:** Snow peas market at bottom; great deal. Sugar snaps down from previous weeks; best quality comes out of Peru but at a high price.

## Merchandising Tips

With summer winding down and your displays of stone fruit getting smaller, it's time to expand on some other key items. Bartlett pears are one example. Increase your bulk display and also offer them in tote bags. Round out your pear display with Bosc, Golden Bosc, Red pears and Apple Crunchy pears. Examine your bulk apple displays too. Honeycrisp apples deserve the biggest allocation, but be sure to include other unique flavors such as Cheekie, Lemonade, Rave, Smitten and McIntosh. For extra sales, display them in tote bags too. All the varieties of caramel apples are available now. Create exciting displays with tie-ins of caramel apple dips and apple crisp mix. Go big with apple cider... It's time! Display Jack-O-lantern pumpkins right up front in your department with an eye-catching mum display. I always encourage displaying walnut meats right up front with apples to get extra sales. Build a hard-shell squash display in a center aisle. Tie-in pie pumpkins and mini-pumpkins along with gourds. Top it off with Indian corn. Your department should scream fall!

**CROSSET NEW ITEM & DELETION SHEET**

W/B: 9/16/18

<b>ITEM #</b>	<b>NEW ITEMS</b>	<b>SIZE</b>
30089	Apple Sweet Tango	40#/64ct
34215	Jonagold	40#/80ct
34250	Jonagold	12/3#
38006	Danjou	40#
28830	OG Gold Del	40#/80ct
33775	Gala 80ct	40#/80ct
27080	Avocados	70ct
69125	Muscadine grapes	8/1#
69265	Sweet Sapphire Grapes	16#
97415	Pomegranates	30ct
81055	Onion Sweet	40#
81065	Onion Sweet OG	40#
81070	Onion Sweet	12/2#
82235	Onion Sweet	16/3#
34530	Pinata	40#/72ct
<b>DELETIONS</b>		
38070	OG Packham	40#
1345	OG Honeydews	25#/6ct
69810	Champagne Grapes	16/1#
82245	Onion Vidalia OG	40#
82240	Onion Vidalia	16/3#
82250	Onion Vidalia OG	12/3#
82255	Onion Vidalia	12/2#
82260	Onion Vidalia	40#
72032	OG FM Nectarines	18#
82225	Onion Vidalia Col FM	40#