



Photo by Dennis Menendez

There's No Cap on Mushroom Growth

MUSHROOMS ARE A SHOWCASE CATEGORY THAT WHEN WELL MANAGED CREATES A **HALO** EFFECT ON THE ENTIRE PRODUCE DEPARTMENT.

By Dan Bolton

Natural Food Network Editor

Price, per capita consumption and profits are converging perfectly for produce buyers stocking mushrooms.

"I doubt any item in the produce department has the growth potential of mushrooms," said Bart Minor, president of the Mushroom Council, a trade association that represents the majority of U.S. producers. Mushrooms are high margin and one of the top 20 sellers in grocery produce departments, he said.

Sales of fresh mushrooms in 2007 topped a record set in 2004 at higher than forecasted prices. Volume growth in 2007 was 2 percent, according to the Council. Information Resources, Inc. pegged sales of fresh mushrooms at \$714 million.

Tastes are changing with Americans eating a lot more specialty mushrooms. Foodservice use is climbing. Shiitakes, maitakes, porcinis, portabellas and morels are favored by chefs who use them with fish, steak, pastas and vegetables in ethnic, healthy or gourmet dishes.

The National Restaurant Association's annual survey of chefs named specialty mushrooms "one of the top 10 hot items" and that is stimulating greater interest in shoppers willing to experiment with specialty varieties.

In the mid 70s, U.S. per capita consumption was less than half a pound. Today it is 4 pounds and climbing (2.47 pounds fresh and 1.65 pounds processed mushrooms). Asian

Americans eat 9 pounds on average and in Japan consumers eat 19.2 pounds per person.

Imports are rising with Japanese and Chinese mushrooms taking 5 percent share from Canadian and Mexican button imports. Imports totaled 37 million pounds last year, an increase of 12.5 percent compared to 2006. Asian exporters accounted for 16.5 percent of the total, up from 11 percent in 2005.

U.S. fresh mushroom consumption is expected to increase at 1.9 percent per year, reaching 3.21 pounds per person by 2012. Meanwhile, processed mushroom consumption is expected to remain flat at about 1.65 pounds per person through 2012, according to a market forecast by Prof. Paul Patterson at Arizona State University.

The most important component of this growth is specialty mushrooms, including those certified organic. Growers produced 36.2 million pounds of certified organic mushrooms in 2006-07, about 5 percent of total production, said Minor.

Yet only 8.57 million pounds were sold with a certified label, said Minor. "You often hear buyers lament the lack of availability but the truth is, only 24 percent of buyers are willing to pay the price for organic," he explained.

"What they are really saying is that buyers can't get them for the same price as regular mushrooms and sellers cannot get a premium," explained Minor.

Golden Gourmet CEO/President Craig Anderson believes the solution is "cultivated wild" mushrooms that are certified organic and "go from growth medium to grocer's shelf untouched by human hands."

Emboldened by the trend, Hokto Kinoko Corp. of Japan, Golden Gourmet's partner of 20 years, is constructing a facility capable of producing 6 million pounds of certified organic mushrooms annually. When completed this fall, it will be the nation's largest production facility of specialty mushrooms, complete with robotic harvesting and state-of-the-art packaging that greatly extends shelf life of this fragile produce.

Specialty mushrooms such as maitake, shitakes, king trumpet and brown and white beech, currently represent less than 5 percent of pounds harvested annually, said Anderson. While supermarkets stock up to 20 varieties, Golden's COO Steve Farrar said the market consists mainly of white buttons and browns. Many shoppers are unfamiliar with mushrooms and simply choose buttons.

Most button mushrooms are grown in Pennsylvania hothouses where in the 1970s upwards of 250 small farms operated near Kennett Square. Consolidation reduced that to 83 today and caused some giants, including Phillips Mushroom Farms, to switch to growing specialty varieties. Phillips shipped

35 million pounds of specialty mushrooms (mainly portabellas) last year.

Visionaries among mushroom producers, brothers Don and Marshall Phillips shifted production from buttons to year-round production of shiitakes in 1979. They introduced the first oyster mushrooms in 1982 and began shipping direct to grocers and in 1985. “We put portabella on the market,” said General Manager Jim Angelucci. The firm, which grows nine varieties, is now the largest supplier of specialty mushrooms in the country.

“My advice to grocers is to offer a wide variety,” said Angelucci. “There is a lot of customer interest in the unique taste and flavor of specialty mushrooms.”

Mushrooms are grown indoors. In cold weather, heating expenses have skyrocketed from 48 cents to \$3 a gallon for heating oil, driving up prices. Growing buttons is fairly low tech but temperature and humidity must be carefully controlled. Since they are grown in manure, pasteurization is required.

Japanese producers pioneered the use of sterilized polypropylene bottles filled with sawdust, wheat bran, sorghum and minerals. “It’s a richer and healthier diet than horse manure and facilitates harvesting,” explains Anderson. Utilizing the technology of Hokto, the largest mushroom producer in Japan, Golden Gourmet’s 250,000 sq. ft. facility opens this fall.

Innovative packaging

Mushrooms are fungi. They have no skin so they lose water to the atmosphere very easily, yet quickly turn to slime if wet. They are subject to mechanical breakage and temperate extremes and they must be allowed to breathe. High turns and frequent culling are the key to keeping displays fresh looking. As a result, shrink is often very high.

To alleviate these problems Golden Gourmet mushrooms are grown in bunches weighing four ounces, then harvested and packed into laminated engineered film that is permeable to gases and water vapor. Washing is not required due to the clean growing medium and there is little mechanical damage since the mushrooms sit in a bubble of air.

The process increases shelf life two to four weeks and there are no post-harvest contamination issues, said Anderson whose innovation resulted in a nomination for packaging of the year by the Produce Managers Association.

A produce manager at



Stocking Suggestions

Beech – Uncooked white and brown beech mushrooms have a strong, bitter flavor, but cooking transforms the flavor and renders its nutritional components more available for complete digestion.

Chanterelle – Hollow in the center and fluted with thin walls, these grayish-black mushrooms have a dark interior.

Crimini – Tan to brown in color with a firm, buttery texture and a flavor similar to button mushrooms but more intense.

Maitake – A robust earthy flavor and fragrance with a mild taste, clusters work well in stir-fry, sautéed, and baked. In the wild it grows in clusters at the foot of trees, especially oak.

Oyster – Popular with a fluted cap that looks like a fan. Can be eaten cooked or raw. Oysters are available in many varieties including Trumpet. Flavor is described as delicate and the cap is velvety.

Porcini – Flat, reddish-brown caps; thick stems that are wider at the base like champagne corks.

Portabella – Large with flat, brown caps 4-6” in diameter. Thick tan stems attached.

Shiitake – Fleeshy, gold to dark brown, parasol-like cap, thick cream-colored stems.



Draeger’s Markets in California said packaged mushrooms are popular with customers. He praised the packaging for displaying recipes, serving suggestions and label information. The brand does very well in Asian markets including Mitsuwa, Nijiya, and Marukai; and in Whole Foods, Henry’s Farmers Markets, Bristol Farms and Trader Joes, said Anderson.

Merchandising

Produce managers should pay heed to these “helping statements” based on research by Willard Bishop commissioned by the Mushroom Council in 2007. ...*differentiate your produce department with a superior and engaging mushroom presentation. ...build your shoppers’ passion about cooking with mushrooms.*

Nearly 70 percent of retailers responding to the survey believe “mushrooms have a high/extremely high impact on the store’s overall quality.” Retailers attribute a “halo” effect on the entire produce department and rated mushrooms ahead of bagged salads and bananas in terms of “showcase” categories, despite the fact mushrooms rank behind both bananas and salad in sales and profit.

Recommendations included improving product labeling, distributing recipes and placing mushrooms in locations throughout the store.

Demand increased by 18

percent in stores incorporating best practices in care and culling, according to the study.

Placing portabella mushrooms in the soy/veggie burger section resulted in a 47 percent lift in sales at six test supermarkets in a large, traditional grocery chain in Atlanta. Placing sliced white mushrooms in the meat case with recommendations to use in them as a topper increased customer takeaway by 29 percent in a chain of New Jersey stores. Placing 8 oz bags of sliced mushrooms near bagged salads in six New York test stores resulted in an 11 percent increase in sales over eight weeks.

A Point of Differentiation

Store differentiation is the top priority for 73 percent of grocery retailers and a superior selection and display of mushrooms adds great visual appeal in the all important produce department.

Education is essential, beginning with retailers, said Minor. Mushrooms are not like bananas, apples or tomatoes. Everybody knows them, he said. Customers are eager to learn more about mushrooms and it’s worth the effort, he said. Household penetration is relatively modest with many buying mushrooms only once a year. Only 10 percent of shoppers are heavy users, he said.

There is great potential for growth, he concludes: “The more we promote them, the more they will buy.” [nfn](#)