



Mushrooms

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All Mushroom Value of Sales at \$1.04 Billion

Volume of sales of the 2022-2023 United States mushroom crop totaled 667 million pounds, down 5 percent from last season. Value of sales for the 2022-2023 United States mushroom crop was \$1.04 billion, up 2 percent from the previous season. The average reported price was \$1.55 per pound, up 10 cents from the previous year.

Agaricus and Specialty Mushroom Sales, Price, and Value – United States: 2020-2021, 2021-2022, and 2022-2023

Year	All sales		
	Volume of sales (1,000 pounds)	Price per pound ¹ (dollars)	Value of sales (1,000 dollars)
2020-2021 ²	757,987	1.40	1,063,849
2021-2022 ²	702,391	1.45	1,018,281
2022-2023 ²	666,647	1.55	1,035,479

¹ Prices for mushrooms are the average prices producers receive at the point of first sale, commonly referred to as the average price as sold. For example, if in a given State, part of the fresh mushrooms are sold F.O.B. packed by growers, part are sold bulk to brokers or repackers, and some are sold retail at roadside stands, the mushroom average price as sold is a weighted average of the average price for each method of sale.

² Includes California, Florida, Illinois, Maryland, Oklahoma, Pennsylvania, Tennessee, and Texas.

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Agaricus Mushroom Area in Production and Yield – States and United States: 2020-2021, 2021-2022, and 2022-2023

State	Area in production						Yield per square foot		
	Growing area			Total filings			2020-2021	2021-2022	2022-2023
	2020-2021	2021-2022	2022-2023	2020-2021	2021-2022	2022-2023			
	(1,000 square feet)	(1,000 square feet)	(1,000 square feet)	(1,000 square feet)	(1,000 square feet)	(1,000 square feet)	(pounds)	(pounds)	(pounds)
California	2,589	1,663	1,591	24,382	12,912	12,611	4.07	5.71	6.54
Pennsylvania	16,304	15,254	13,813	73,266	74,770	68,657	6.49	5.97	5.95
Other States ¹	4,360	3,845	4,070	33,314	26,749	28,426	4.89	5.96	5.45
United States	23,253	20,762	19,473	130,962	114,431	109,693	5.63	5.94	5.89

¹ Other States include Florida, Illinois, Maryland, Oklahoma, Tennessee, and Texas.

Agaricus Mushroom Sales, Dollar Volume per Square Foot of Growing Area, Price, and Value – States and United States: 2020-2021, 2021-2022, and 2022-2023

State	Volume of sales			Dollar volume per square foot			Price per pound ¹			Value of sales		
	2020-2021	2021-2022	2022-2023	2020-2021	2021-2022	2022-2023	2020-2021	2021-2022	2022-2023	2020-2021	2021-2022	2022-2023
	(1,000 pounds)	(1,000 pounds)	(1,000 pounds)	(dollar)	(dollar)	(dollar)	(dollar)	(dollar)	(dollar)	(1,000 dollars)	(1,000 dollars)	(1,000 dollars)
California	99,245	73,780	82,515	8.91	13.41	16.01	2.19	2.35	2.45	217,145	173,143	201,945
Pennsylvania	475,200	446,586	408,357	6.57	6.14	6.41	1.01	1.03	1.08	481,484	459,389	440,192
Other States ²	162,968	159,522	154,807	8.98	11.16	10.66	1.84	1.87	1.96	299,107	298,398	302,990
United States	737,413	679,888	645,679	7.62	8.14	8.62	1.35	1.37	1.46	997,736	930,930	945,127

¹ Prices for mushrooms are the average prices producers receive at the point of first sale, commonly referred to as the average price as sold. For example, if in a given State, part of the fresh mushrooms are sold F.O.B. packed by growers, part are sold bulk to brokers or repackers, and some are sold retail at roadside stands, the mushroom average price as sold is a weighted average of the average price for each method of sale.

² Other States include Florida, Illinois, Maryland, Oklahoma, Tennessee, and Texas.

Agaricus Mushroom Fresh Market Sales, Price, and Value – States and United States: 2020-2021, 2021-2022, and 2022-2023

State	Volume of sales			Price per pound ¹			Value of sales		
	2020-2021	2021-2022	2022-2023	2020-2021	2021-2022	2022-2023	2020-2021	2021-2022	2022-2023
	(1,000 pounds)	(1,000 pounds)	(1,000 pounds)	(dollars)	(dollars)	(dollars)	(1,000 dollars)	(1,000 dollars)	(1,000 dollars)
Pennsylvania	414,436	387,884	311,713	1.07	1.09	1.18	443,119	420,922	367,234
Other States ²	256,304	227,976	234,093	1.99	2.04	2.15	509,402	464,847	502,572
United States	670,740	615,860	545,807	1.42	1.44	1.59	952,521	885,769	869,805

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² Other States includes California, Florida, Illinois, Maryland, Oklahoma, Tennessee, and Texas.

Agaricus Mushroom Processing Sales, Price, and Value – States and United States: 2020-2021, 2021-2022, and 2022-2023

State	Volume of sales			Price per pound ¹			Value of sales		
	2020-2021	2021-2022	2022-2023	2020-2021	2021-2022	2022-2023	2020-2021	2021-2022	2022-2023
	(1,000 pounds)	(1,000 pounds)	(1,000 pounds)	(dollars)	(dollars)	(dollars)	(1,000 dollars)	(1,000 dollars)	(1,000 dollars)
Pennsylvania	60,764	58,702	96,643	0.631	0.655	0.755	38,365	38,467	72,958
Other States ²	5,909	5,326	3,229	1.160	1.260	0.732	6,850	6,694	2,364
United States	66,673	64,028	99,872	0.678	0.705	0.754	45,215	45,161	75,322

¹ Prices for mushrooms are the average prices producers receive at the point of first sale, commonly referred to as the average price as sold. For example, if in a given State, part of the fresh mushrooms are sold F.O.B. packed by growers, part are sold bulk to brokers or repackers, and some are sold retail at roadside stands, the mushroom average price as sold is a weighted average of the average price for each method of sale.

² Other States includes California, Florida, Illinois, Maryland, Oklahoma, Tennessee, and Texas.

Brown Mushrooms (Portabello and Crimini) Sales, Price, and Value – United States: 2020-2021, 2021-2022, and 2022-2023

[Brown mushrooms are part of Agaricus mushrooms]

State	Volume of sales			Price per pound ¹			Value		
	2020-2021	2021-2022	2022-2023	2020-2021	2021-2022	2022-2023	2020-2021	2021-2022	2022-2023
	(1,000 pounds)	(1,000 pounds)	(1,000 pounds)	(dollars)	(dollars)	(dollars)	(1,000 dollars)	(1,000 dollars)	(1,000 dollars)
United States ²	192,675	202,568	212,486	1.57	1.67	1.83	301,598	337,726	389,837

¹ Prices for mushrooms are the average prices producers receive at the point of first sale, commonly referred to as the average price as sold. For example, if in a given State, part of the fresh mushrooms are sold F.O.B. packed by growers, part are sold bulk to brokers or repackers, and some are sold retail at roadside stands, the mushroom average price as sold is a weighted average of the average price for each method of sale.

² Includes California, Florida, Illinois, Maryland, Oklahoma, Pennsylvania, Tennessee, and Texas.

Agaricus Mushroom Growing Area Intended for Production by Utilization – States and United States: July 2023-June 2024

State	Intentions July 2023 - June 2024			
	Fresh market	Processed market	Total fillings	Percent of last year
	(1,000 square feet)	(1,000 square feet)	(1,000 square feet)	(percent)
Pennsylvania	83,903	11,751	95,654	139
Other States ¹	36,325	22	36,348	89
United States	120,228	11,774	132,002	120

¹ Other States include California, Florida, Illinois, Maryland, Oklahoma, Tennessee, and Texas.

Specialty Mushroom Area in Production by Variety – United States: 2020-2021, 2021-2022, and 2022-2023

[Specialty mushroom estimates represent growers who have at least 200 natural wood logs in production or some commercial indoor growing area, and \$200 in sales. Totals may not add due to rounding]

Variety	Area in production								
	Natural wood outdoor logs			Natural wood undercover and indoor logs			All other production media		
	2020-2021	2021-2022	2022-2023	2020-2021	2021-2022	2022-2023	2020-2021	2021-2022	2022-2023
	(1,000 logs)	(1,000 logs)	(1,000 logs)	(1,000 logs)	(1,000 logs)	(1,000 logs)	(1,000 square feet)	(1,000 square feet)	(1,000 square feet)
Shiitake	(D)	(D)	(D)	(D)	(D)	(D)	723	257	353
Oyster	(D)	(D)	(D)	(D)	(D)	(D)	1,058	641	746
Other	(D)	(D)	(D)	(D)	(D)	(D)	412	543	532
Total ¹	14	22	21	1,849	1,674	941	2,193	1,441	1,630

(D) Withheld to avoid disclosing data for individual operations.

¹ Includes California, Florida, Illinois, Maryland, Oklahoma, Pennsylvania, Tennessee, and Texas.

Specialty Mushroom Total Production, Volume of Sales, Price, and Value of Sales by Variety – United States: 2020-2021, 2021-2022, and 2022-2023

[Specialty mushroom estimates represent growers who have at least 200 natural wood logs in production or some commercial indoor growing area, and \$200 in sales. Totals may not add due to rounding]

Variety	Total production ¹			All sales								
				Volume of sales ²			Price per pound ³			Value of sales		
	2020-2021	2021-2022	2022-2023	2020-2021	2021-2022	2022-2023	2020-2021	2021-2022	2022-2023	2020-2021	2021-2022	2022-2023
	(1,000 pounds)	(1,000 pounds)	(1,000 pounds)	(1,000 pounds)	(1,000 pounds)	(1,000 pounds)	(dollar)	(dollar)	(dollar)	(1,000 dollars)	(1,000 dollars)	(1,000 dollars)
Shiitake	7,475	8,073	5,476	7,210	7,749	5,411	3.44	3.51	3.73	24,836	27,162	20,201
Oyster	7,220	5,267	7,519	6,708	5,007	7,432	2.24	3.04	2.99	15,003	15,209	22,187
Other	6,819	10,265	8,444	6,655	9,748	8,125	3.95	4.61	5.90	26,273	44,980	47,964
Total ⁴	21,514	23,606	21,440	20,574	22,504	20,968	3.21	3.88	4.31	66,113	87,351	90,352

¹ Total production includes all fresh market and processing sales plus amount harvested but not sold (shrinkage, cullage, dumped, etc.).

² Virtually all specialty mushroom sales are for fresh market.

³ Prices for mushrooms are the average prices producers receive at the point of first sale, commonly referred to as the average price as sold. For example, if in a given State, part of the fresh mushrooms are sold F.O.B. packed by growers, part are sold bulk to brokers or repackers, and some are sold retail at roadside stands, the mushroom average price as sold is a weighted average of the average price for each method of sale.

⁴ Includes California, Florida, Illinois, Maryland, Oklahoma, Pennsylvania, Tennessee, and Texas.

Agaricus Mushrooms

Agaricus mushroom volume of sales totaled 646 million pounds, down 5 percent from the 2021-2022 season. Pennsylvania accounted for 63 percent of the total volume of sales and second-ranked California contributed 13 percent. The value of the Agaricus crop was estimated at \$945 million dollars, up 2 percent from a year ago. Brown mushrooms, including Portabello and Crimini varieties, accounted for 212 million pounds, up 5 percent from last season. Brown mushrooms accounted for 33 percent of the total Agaricus volume sold and 41 percent of the total Agaricus value.

United States fresh market sales of Agaricus mushrooms totaled 546 million pounds, down 11 percent from the previous season, while processed sales, at 99.9 million pounds, increased 56 percent from the previous season. Growers reported United States fresh market production made up 85 percent of total sales volume, while processed production represented the remaining 15 percent. Grower total filling intentions for the 2023-2024 crop are 132 million square feet, up 20 percent from the total fillings in the 2022-2023 season.

Agaricus mushroom growers in Chester County, Pennsylvania produced 282 million pounds, a decrease of 12 percent compared with the 2021-2022 growing season. This production was valued at 304 million dollars, down 8 percent from the previous season. The growing area in Chester County was 11.0 million square feet, down 5 percent from last season. Total fillings were 52.1 million square feet, down 8 percent from the 2021-2022 growing season.

Specialty Mushrooms - Shiitake, Oyster, and all Other Exotics

Value of sales for commercially grown specialty mushrooms in 2022-2023 totaled \$90.4 million, up 3 percent from the 2021-2022 season. A specialty grower is defined as having at least 200 natural wood logs in production or some commercial indoor growing area, and \$200 or more in sales. The average price received by growers, at \$4.31 per pound, was up 43 cents from the previous season estimate.

Certified Organic Agaricus and Specialty Mushrooms

Growers produced 114 million pounds of mushrooms that were certified organic during the 2022-2023 growing season, 27 percent below 2021-2022. Seventy-seven percent of the total, or 88.1 million pounds, were sold as certified organic mushrooms. Agaricus mushrooms accounted for 72 percent of the mushrooms sold as certified organic, while all specialty mushrooms made up the remainder.

Statistical Methodology

Survey procedures: Grower surveys are conducted in preparation for this report. All known commercial mushroom producers are contacted utilizing mail, telephone, and personal enumeration. Unless other specific arrangements are made, data collection for multi-State operations is conducted by the State in which the firm's headquarters is located. Information is collected for Agaricus (including White Button, Crimini, and Portabello) and specialty mushrooms.

Estimating procedures: Information obtained from the mushroom grower surveys is used to establish estimates of area in production, yield per square foot, utilization, volume of sales, average price per pound, and value of sales. Estimates are also prepared for the total amount of mushrooms grown as certified organic and quantity sold from mushrooms certified as organically produced.

Revision policy: All mushroom estimates, except intentions, are subject to revision the following year based on a thorough review of all available data.

Reliability: The mushrooms grower surveys are subject to non-sampling errors, such as omissions, duplication, and mistakes in reporting, recording, and processing the data. These errors cannot be measured directly, but are minimized through rigid quality controls in the data collection process and a careful review of all reported data for consistency and reasonableness.

Information Contacts

Listed below are the commodity statisticians in the Crops Branch of the National Agricultural Statistics Service to contact for additional information. E-mail inquiries may be sent to nass@usda.gov

Lance Honig, Chief, Crops Branch.....	(202) 720-2127
Fleming Gibson, Head, Fruits, Vegetables and Special Crops Section	(202) 720-2127
Deonne Holiday – Almonds, Carrots, Coffee, Cranberries, Garlic, Onions, Plums, Prunes, Tobacco.....	(202) 720-4288
Bret Holliman – Apricots, Chickpeas, Nectarines, Peaches, Snap Beans, Sweet Corn, Tomatoes.....	(202) 720-7235
Robert Little – Blueberries, Cabbage, Dry Beans, Lettuce, Macadamia, Maple Syrup, Pears, Raspberries, Spinach	(202) 720-3250
Krishna Rizal – Artichokes, Asparagus, Celery, Grapefruit, Kiwifruit, Lemons, Mandarins and tangerines, Mint, Mushrooms, Olives, Oranges, Pistachios	(202) 720-5412
Chris Singh – Apples, Cucumbers, Hazelnuts, Potatoes, Pumpkins, Squash, Strawberries, Sugarbeets, Sugarcane, Sweet Potatoes	(202) 720-4285
Antonio Torres – Cantaloupes, Dry Edible Peas, Grapes, Green Peas, Honeydews, Lentils, Sweet Cherries, Tart Cherries, Walnuts, Watermelons	(202) 720-2157
Chris Wallace – Avocados, Bell Peppers, Broccoli, Cauliflower, Chile Peppers, Dates, Floriculture, Hops, Papayas, Pecans	(202) 720-4215

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- Cornell’s Mann Library has launched a new website housing NASS’s and other agency’s archived reports. The new website, <https://usda.library.cornell.edu>. All email subscriptions containing reports will be sent from the new website, <https://usda.library.cornell.edu>. To continue receiving the reports via e-mail, you will have to go to the new website, create a new account and re-subscribe to the reports. If you need instructions to set up an account or subscribe, they are located at: <https://usda.library.cornell.edu/help>. You should whitelist notifications@usda-esmis.library.cornell.edu in your email client to avoid the emails going into spam/junk folders.

For more information on NASS surveys and reports, call the NASS Agricultural Statistics Hotline at (800) 727-9540, 7:30 a.m. to 4:00 p.m. ET, or e-mail: nass@usda.gov.

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