Mushrooms

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All Mushroom Value of Sales at $1.06 Billion

Volume of sales of the 2020-2021 United States mushroom crop totaled 758 million pounds, down 7 percent from last season. Value of sales for the 2020-2021 United States mushroom crop was $1.06 Billion, down 8 percent from the previous season. The average reported price was $1.40 per pound, down 1 cent from the previous year.

Agaricus and Specialty Mushroom Sales, Price, and Value – United States: 2018-2019, 2019-2020, and 2020-2021

Year	All sales		
	Volume of sales	Price per pound [1]	Value of sales
	(1,000 pounds)	(dollars)	(1,000 dollars)
2018-2019 [2]	831,724	1.34	1,114,710
2019-2020 [2]	816,367	1.41	1,153,296
2020-2021 [2]	757,987	1.40	1,063,849

[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: 2018-2019, 2019-2020, and 2020-2021

State	Area in production						Yield per square foot		
	Growing area			Total filings					
	2018-2019	2019-2020	2020-2021	2018-2019	2019-2020	2020-2021	2018-2019	2019-2020	2020-2021
	(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	2,306	2,616	2,589	14,858	25,617	24,382	6.27	4.39	4.07
Pennsylvania	15,293	14,830	16,304	76,673	76,581	73,266	7.23	6.87	6.49
Other States [1]	4,432	4,440	4,360	27,654	32,886	33,314	5.97	4.79	4.89
United States	22,031	21,886	23,253	119,185	135,084	130,962	6.82	5.90	5.63

[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: 2018-2019, 2019-2020, and 2020-2021

State	Volume of sales			Dollar volume per square foot			Price per pound [1]			Value of sales		
	2018-2019	2019-2020	2020-2021	2018-2019	2019-2020	2020-2021	2018-2019	2019-2020	2020-2021	2018-2019	2019-2020	2020-2021
	(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	93,153	112,457	99,245	13.16	9.67	8.91	2.10	2.20	2.19	195,462	247,760	217,145
Pennsylvania	554,093	526,336	475,200	7.23	7.16	6.57	1.00	1.04	1.01	554,258	548,077	481,484
Other States [2]	165,223	157,569	162,968	10.80	8.82	8.98	1.81	1.84	1.84	298,739	290,013	299,107
United States	812,469	796,362	737,413	8.80	8.04	7.62	1.29	1.36	1.35	1,048,459	1,085,850	997,736

[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: 2018-2019, 2019-2020, and 2020-2021

State	Volume of sales			Price per pound [1]			Value of sales		
	2018-2019	2019-2020	2020-2021	2018-2019	2019-2020	2020-2021	2018-2019	2019-2020	2020-2021
	(1,000 pounds)	(1,000 pounds)	(1,000 pounds)	(dollars)	(dollars)	(dollars)	(1,000 dollars)	(1,000 dollars)	(1,000 dollars)
Pennsylvania	497,743	477,025	414,436	1.04	1.08	1.07	517,072	514,973	443,119
Other States [2]	250,378	263,769	256,304	1.95	2.01	1.99	486,990	530,884	509,402
United States	748,121	740,794	670,740	1.34	1.41	1.42	1,004,062	1,045,857	952,521

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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: 2018-2019, 2019-2020, and 2020-2021

State	Volume of sales			Price per pound [1]			Value of sales		
	2018-2019	2019-2020	2020-2021	2018-2019	2019-2020	2020-2021	2018-2019	2019-2020	2020-2021
	(1,000 pounds)	(1,000 pounds)	(1,000 pounds)	(dollars)	(dollars)	(dollars)	(1,000 dollars)	(1,000 dollars)	(1,000 dollars)
Pennsylvania	56,350	49,311	60,764	0.660	0.671	0.631	37,186	33,104	38,365
Other States [2]	7,998	6,257	5,909	0.902	1.100	1.160	7,211	6,889	6,850
United States	64,348	55,568	66,673	0.690	0.720	0.678	44,397	39,993	45,215

[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: 2018-2019, 2019-2020, and 2020-2021

[Brown mushrooms are part of Agaricus mushrooms]

State	Volume of sales			Price per pound [1]			Value		
	2018-2019	2019-2020	2020-2021	2018-2019	2019-2020	2020-2021	2018-2019	2019-2020	2020-2021
	(1,000 pounds)	(1,000 pounds)	(1,000 pounds)	(dollars)	(dollars)	(dollars)	(1,000 dollars)	(1,000 dollars)	(1,000 dollars)
United States [2]	183,774	188,703	192,675	1.55	1.57	1.57	285,533	296,139	301,598

[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 2021-June 2022

State	Intentions July 2021 - June 2022			
	Fresh market	Processed market	Total fillings	Percent of last year
	(1,000 square feet)	(1,000 square feet)	(1,000 square feet)	(percent)
Pennsylvania	(D)	(D)	69,045	94
Other States [1]	124,042	2,587	47,483	82
United States	124,042	2,587	116,528	89

(D) Withheld to avoid disclosing data for individual operations.
[1] Other States include data withheld above and California, Florida, Illinois, Maryland, Oklahoma, Tennessee, and Texas.

Specialty Mushroom Area in Production by Variety – United States: 2018-2019, 2019-2020, and 2020-2021

[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]

Variety	Area in production								
	Natural wood outdoor logs			Natural wood undercover and indoor logs			All other production media		
	2018-2019	2019-2020	2020-2021	2018-2019	2019-2020	2020-2021	2018-2019	2019-2020	2020-2021
	(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)	389	677	723
Oyster	(D)	(D)	(D)	(D)	(D)	(D)	515	808	1,058
Other	(D)	(D)	(D)	(D)	(D)	(D)	296	390	412
Total [1]	42	14	14	2,382	2,401	1,849	1,200	1,876	2,193

(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: 2018-2019, 2019-2020, and 2020-2021

[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]

Variety	Total production [1]			All sales								
				Volume of sales [2]			Price per pound [3]			Value of sales		
	2018-2019	2019-2020	2020-2021	2018-2019	2019-2020	2020-2021	2018-2019	2019-2020	2020-2021	2018-2019	2019-2020	2020-2021
	(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	6,987	7,298	7,475	6,726	7,013	7,210	3.20	3.44	3.44	21,515	24,091	24,836
Oyster	8,941	8,642	7,220	8,623	8,517	6,708	3.10	2.70	2.24	26,695	23,032	15,003
Other	3,970	4,652	6,819	3,906	4,475	6,655	4.62	4.54	3.95	18,041	20,323	26,273
Total [4]	19,898	20,592	21,514	19,255	20,005	20,574	3.44	3.37	3.21	66,251	67,446	66,113

[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 737 million pounds, down 7 percent from the 2019-2020 season. Pennsylvania accounted for 64 percent of the total volume of sales and second-ranked California contributed 13 percent. The value of the Agaricus crop was estimated at $998 million dollars, down 8 percent from a year ago. Brown mushrooms, including Portabello and Crimini varieties, accounted for 193 million pounds, up 2 percent from last season. Brown mushrooms accounted for 26 percent of the total Agaricus volume sold and 30 percent of the total Agaricus value.

United States fresh market sales of Agaricus mushrooms totaled 671 million pounds, down 9 percent from the previous season, while processed sales, at 66.7 million pounds, increased 20 percent from the previous season. Growers reported United States fresh market production made up 91 percent of total sales volume, while processed production represented the remaining 9 percent. Grower total filling intentions for the 2021-2022 crop are 117 million square feet, down 11 percent from the total fillings in the 2020-2021 season.

Agaricus mushroom growers in Chester County, Pennsylvania produced 317 million pounds, a decrease of 17 percent compared with the 2019-2020 growing season. This production was valued at 319 million dollars, down 20 percent from the previous season. The growing area in Chester County was 9.6 million square feet, down 13 percent from last season. Total fillings were 47.2 million square feet, down 16 percent from the 2019-2020 growing season.

Specialty Mushrooms - Shiitake, Oyster, and all Other Exotics

Value of sales for commercially grown specialty mushrooms in 2020-2021 totaled $66.1 million, down 2 percent from the 2019-2020 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 $3.21 per pound, was down 16 cents from the previous season estimate.

Certified Organic Agaricus and Specialty Mushrooms

Growers produced 131 million pounds of mushrooms that were certified organic during the 2020-2021 growing season, 3 percent above 2019-2020. Fifty-five percent of the total, or 73.1 million pounds, were sold as certified organic mushrooms. Agaricus mushrooms accounted for 92 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

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

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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.