Honey

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United States Honey Production Down 1 Percent in 2022

United States honey production in 2022 totaled 125 million pounds, down 1 percent from 2021. There were 2.67 million colonies producing honey in 2022, down 1 percent from 2021. Yield per colony averaged 47.0 pounds, unchanged from 2021. Colonies which produced honey in more than one State were counted in each State where the honey was produced. Therefore, at the United States level yield per colony may be understated, but total production would not be impacted. Colonies were not included if honey was not harvested. Producer honey stocks were 23.3 million pounds on December 15, 2022, down 1 percent from a year earlier. Stocks held by producers exclude those held under the commodity loan program.

Honey Prices Up 12 Percent in 2022

United States honey prices increased 12 percent during 2022 to $2.96 per pound, compared to $2.65 per pound in 2021. United States and State level prices reflect the portions of honey sold through cooperatives, private, and retail channels. Prices for each color class are derived by weighting the quantities sold for each marketing channel. Prices for the 2021 crop reflect honey sold in 2021 and 2022. Some 2021 crop honey was sold in 2022, which caused some revisions to the 2021 crop prices.

Price Paid per Queen was 22 Dollars in 2022

The average prices paid in 2022 for honey bee queens, packages, and nucs were $22, $98, and $129, respectively. Pollination income for 2022 was $241 million, down 11 percent from 2021. Other income from honey bees in 2022 was $55.2 million, down 31 percent from 2021. These estimates, along with expenditure and apiary worker information, can be found on page 4 of this report.

Colonies, Yield, Production, Stocks, Price, and Value – States and United States: 2021

[Colonies which produced honey in more than one State were counted in each State]

State	Honey producing colonies [1]	Yield per colony	Production	Stocks December 15 [2]	Average price per pound [3]	Value of production [4]
	(1,000)	(pounds)	(1,000 pounds)	(1,000 pounds)	(dollars)	(1,000 dollars)
Alabama	8	40	320	112	5.22	1,670
Arizona	26	40	1,040	364	2.58	2,683
Arkansas	17	50	850	255	2.12	1,802
California	290	33	9,570	1,627	2.42	23,159
Colorado	29	40	1,160	232	3.01	3,492
Florida	193	44	8,492	849	2.58	21,909
Georgia	96	34	3,264	261	2.72	8,878
Hawaii	20	93	1,860	74	2.22	4,129
Idaho	100	30	3,000	270	2.32	6,960
Illinois	10	46	460	115	5.49	2,525
Indiana	10	52	520	177	4.09	2,127
Iowa	38	55	2,090	502	2.45	5,121
Kansas	7	42	294	144	3.07	903
Kentucky	7	37	259	73	4.92	1,274
Louisiana	37	58	2,146	172	2.49	5,344
Maine	11	34	374	60	3.43	1,283
Michigan	100	51	5,100	1,938	3.00	15,300
Minnesota	125	57	7,125	285	2.99	21,304
Mississippi	25	71	1,775	71	2.85	5,059
Missouri	8	35	280	92	4.49	1,257
Montana	117	57	6,669	1,934	2.19	14,605
Nebraska	38	47	1,786	536	2.48	4,429
New Jersey	15	35	525	158	3.44	1,806
New York	57	53	3,021	665	3.98	12,024
North Carolina	13	39	507	96	6.69	3,392
North Dakota	515	55	28,325	2,266	2.23	63,165
Ohio	16	64	1,024	389	3.64	3,727
Oregon	86	31	2,666	693	2.27	6,052
Pennsylvania	20	42	840	336	3.86	3,242
South Carolina	15	42	630	63	5.93	3,736
South Dakota	250	49	12,250	5,268	2.40	29,400
Tennessee	8	56	448	81	4.84	2,168
Texas	137	56	7,672	384	2.32	17,799
Utah	31	33	1,023	92	2.36	2,414
Vermont	6	47	282	65	4.02	1,134
Virginia	6	40	240	79	8.17	1,961
Washington	96	32	3,072	1,290	2.51	7,711
West Virginia	6	43	258	132	5.14	1,326
Wisconsin	42	47	1,974	750	3.09	6,100
Wyoming	38	58	2,204	242	2.09	4,606
Other States [5] [6]	28	48	1,349	340	5.37	7,244
United States [6] [7]	2,697	47.0	126,744	23,532	2.65	335,872

[1] Honey producing colonies are the maximum number of colonies from which honey was harvested during the year. It is possible to harvest honey from colonies which did not survive the entire year.
[2] Stocks held by producers.
[3] Average price per pound based on expanded sales.
[4] Value of production is equal to production multiplied by average price per pound.
[5] Includes data for States not published in this table.
[6] Due to rounding, total colonies multiplied by total yield may not exactly equal production.
[7] United States value of production will not equal summation of States.

Colonies, Yield, Production, Stocks, Price, and Value – States and United States: 2022

[Colonies which produced honey in more than one State were counted in each State]

State	Honey producing colonies [1]	Yield per colony	Production	Stocks December 15 [2]	Average price per pound [3]	Value of production [4]
	(1,000)	(pounds)	(1,000 pounds)	(1,000 pounds)	(dollars)	(1,000 dollars)
Alabama	10	40	400	84	4.85	1,940
Arizona	23	45	1,035	476	2.69	2,784
Arkansas	20	56	1,120	426	2.68	3,002
California	305	38	11,590	811	2.66	30,829
Colorado	31	42	1,302	339	3.26	4,245
Florida	210	35	7,350	368	3.25	23,888
Georgia	103	32	3,296	99	3.07	10,119
Idaho	94	29	2,726	627	2.66	7,251
Illinois	10	47	470	141	6.19	2,909
Indiana	9	63	567	261	5.11	2,897
Iowa	48	51	2,448	710	2.81	6,879
Kansas	6	62	372	167	3.65	1,358
Kentucky	7	36	252	68	5.70	1,436
Louisiana	42	61	2,562	487	2.47	6,328
Maine	10	23	230	64	6.49	1,493
Michigan	82	41	3,362	706	3.04	10,220
Minnesota	102	51	5,202	728	2.79	14,514
Mississippi	21	95	1,995	60	3.13	6,244
Missouri	8	41	328	151	5.13	1,683
Montana	123	61	7,503	2,176	2.64	19,808
Nebraska	34	44	1,496	598	2.82	4,219
New Jersey	16	39	624	62	4.00	2,496
New York	54	53	2,862	916	3.61	10,332
North Carolina	13	39	507	198	6.79	3,443
North Dakota	520	60	31,200	4,680	2.63	82,056
Ohio	19	66	1,254	464	3.48	4,364
Oregon	92	37	3,404	1,191	3.15	10,723
Pennsylvania	23	46	1,058	487	5.81	6,147
South Carolina	13	39	507	91	5.78	2,930
South Dakota	185	39	7,215	2,814	2.58	18,615
Tennessee	9	47	423	102	5.73	2,424
Texas	157	53	8,321	166	3.29	27,376
Utah	26	46	1,196	120	3.00	3,588
Vermont	6	47	282	121	7.04	1,985
Virginia	7	38	266	45	7.77	2,067
Washington	86	32	2,752	660	3.11	8,559
West Virginia	7	39	273	98	5.25	1,433
Wisconsin	53	55	2,915	816	3.04	8,862
Wyoming	30	45	1,350	230	2.64	3,564
Other States [5] [6]	53	63	3,316	501	3.67	12,170
United States [6] [7]	2,667	47.0	125,331	23,309	2.96	370,980

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Honey Price by Color Class – United States: 2021 and 2022

Color class	Co-op and private		Retail		All	
	2021	2022	2021	2022	2021	2022
	(dollars per pound)	(dollars per pound)	(dollars per pound)	(dollars per pound)	(dollars per pound)	(dollars per pound)
Water white, extra white, white	2.33	2.69	5.36	5.62	2.43	2.81
Extra light amber	2.34	2.65	4.15	5.62	2.47	2.75
Light amber, amber, dark amber	2.52	2.81	5.55	6.14	2.98	3.15
All other honey, area specialties	2.64	3.41	6.48	7.86	3.76	4.02
All honey	2.40	2.74	5.27	6.04	2.65	2.96

Income and Expenditures – United States: 2021 and 2022

[Represents income and expenditures on the total number of colonies, regardless of whether honey was harvested]

Item	2021	2022
	(1,000 dollars)	(1,000 dollars)
Income		
Pollination income	270,690	241,042
Other income [1]	80,174	55,188
Expenditures		
Varroa control and treatment	11,565	13,724
Other colony issues [2]	3,066	5,096
Feed [3]	42,582	44,517
Foundation	7,064	6,934
Hives/woodenware	9,863	10,835

[1] Includes sales of queens, queen cells, beeswax, propolis, etc.
[2] Includes Nosema, tracheal mites, foulbrood, paralysis, Kashmir, cloudy wing, etc.
[3] Includes syrup, sugar water, honey, pollen patties, and other feeds.

Queen, Package, and Nuc Prices Paid – United States: 2021 and 2022

[Represents prices paid on the total number of colonies, regardless of whether honey was harvested]

Item	2021	2022
	(dollars)	(dollars)
Queen	20	22
Package	91	98
Nuc	125	129

Apiary Workers – United States: 2021 and 2022

[Represents number of paid and unpaid workers that worked with colonies, regardless of whether honey was harvested]

Item	2021	2022
	(workers)	(workers)
Apiary workers	24,000	25,000

Statistical Methodology

Survey Procedures: Data for honey producing operations are collected from a stratified sample of all known operations with at least 5 honey bee colonies that also meet USDA's definition of a farm. To qualify as a farm, an operation must be any place from which $1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the year. NASS Regional Field Offices maintain a list of all known operations and use known sources of operations to update their lists. All sampled operations are mailed a questionnaire and given adequate time to respond by mail or electronic data reporting (EDR). Those that do not respond by mail or EDR are telephoned or possibly enumerated in person. Prices are collected by color class and marketing channel from operations with five or more colonies.

Estimation Procedures: Sound statistical methodology is employed to derive the estimates from reported data. All data are analyzed for unusual values. Data from each operation are compared to their own past operating profile and to trends from similar operations. Data for missing operations were estimated based on similar operations or historical data. State offices prepare these estimates by using a combination of survey indications and historic trends. Prices for each color class are derived by weighting the quantities sold for each marketing channel. Individual State estimates are reviewed by the Agricultural Statistics Board for reasonableness.

Revision Policy: The previous year's estimates are subject to revision when current year's estimates are made. Revisions are the result of late reports or corrected data. Price revisions can be the result of additional sales reported the following year. Estimates will also be reviewed after data from the 5-year Census of Agriculture are available. No revisions will be made after that date.

Reliability: Since all operations are not included in the sample, survey estimates are subject to sampling variability. Survey results are also subject to non-sampling errors such as omissions, duplication, and mistakes in reporting, recording, and processing the data. While these errors cannot be measured directly, they are minimized through strict quality controls in the data collection process and a careful review of all reported data for consistency and reasonableness.

To assist in evaluating the reliability of the estimates in this report, the "Root Mean Square Error" is shown for selected items in the following table. The "Root Mean Square Error" is a statistical measure based on past performance and is computed using the differences between first and final estimates. The "Root Mean Square Error" for honey producing colonies over the past 10 years is 1.1 percent. This means that chances are 1 out of 3 that the final estimate will not be above or below the current estimate of 2.67 million colonies by more than 1.1 percent. Chances are 9 out of 10 that the difference will not exceed 2.0 percent.

Reliability of Honey Estimates

[Based on data for the previous ten years]

Item	Root mean square error	90 percent confidence level	Difference between first and latest estimate				
			Average	Smallest	Largest	Years	
						Below latest	Above latest
	(percent)	(percent)	(1,000)	(1,000)	(1,000)	(number)	(number)
Honey producing colonies	1.1	2.0	13	-	85	7	1
Honey production	1.2	2.1	874	-	4,796	7	1

- Represents zero.

Information Contacts

Listed below are the commodity specialists in the Livestock 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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- 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.