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Grain Crushings and Co- Products Production 2023 Summary

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2023 Grain Crushings and Co-Products Production

As part of the Current Agricultural Industrial Reports (CAIR) program, the 2023 Annual Summary of the Grain Crushings and Co-Products Production contains data and annual totals for January through December 2023.

Total corn consumed for alcohol for 2023 was 5.43 billion bushels, up 2 percent from 2022. Corn for beverage alcohol in 2023 totaled 62.8 million bushels, up 26 percent from 2022. Corn for fuel alcohol was 5.30 billion bushels in 2023, up 2 percent from 2022.

Dry mill co-product production of distillers dried grains with solubles (DDGS) was 21.0 million tons during 2023, down 3 percent from 2022. Distillers wet grains (DWG) 65 percent or more moisture was 15.7 million tons in 2023, down 3 percent from 2022. Distillers dried grain (DWG) was 4.66 million tons in 2023, up 14 percent from 2022.

Wet mill corn gluten feed production was 3.15 million tons during 2023, down less than 1 percent from 2022. Wet corn gluten feed 40 to 60 percent moisture was 2.40 million tons, down 2 percent from 2022.

Dry and wet mill carbon dioxide captured was 2.54 million tons in 2023, down 8 percent from 2022.

Dry and Wet Mill, Corn Consumed – United States: 2023

Purpose	January 2023	February 2023	March 2023	April 2023	May 2023	June 2023	July 2023
	(1,000 bushels)	(1,000 bushels)	(1,000 bushels)	(1,000 bushels)	(1,000 bushels)	(1,000 bushels)	(1,000 bushels)
Consumed for alcohol production							
Beverage alcohol	6,082	3,362	5,707	6,355	5,149	5,406	4,877
Fuel alcohol	441,567	398,245	436,255	413,519	439,011	441,906	455,241
Dry mill	404,497	364,244	399,242	380,282	406,454	408,117	418,367
Wet mill	37,070	34,001	37,013	33,237	32,557	33,789	36,874
Industrial alcohol	5,582	4,970	5,966	5,892	7,520	6,263	4,753
Consumed for other purposes							
Total wet mill products other than fuel	38,839	35,844	40,557	39,530	41,550	39,391	40,202

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Dry and Wet Mill, Co-products and Products Produced – United States: 2023

Co-products and products	January 2023	February 2023	March 2023	April 2023	May 2023	June 2023	July 2023
	(tons)	(tons)	(tons)	(tons)	(tons)	(tons)	(tons)
Dry mill							
Condensed distillers solubles (CDS - syrup)	100,116	77,506	81,415	88,609	101,166	117,041	110,547
Corn oil (Corn Distillers Oil - CDO)	172,399	160,215	177,019	167,162	184,993	184,370	187,808
Distillers dried grains (DDG)	374,753	338,869	387,438	364,967	419,698	398,295	410,231
Distillers dried grains with solubles (DDGS)	1,714,389	1,560,717	1,705,371	1,619,677	1,702,061	1,787,735	1,784,282
Distillers wet grains (DWG)							
65% or more moisture	1,263,206	1,156,102	1,298,734	1,299,150	1,316,103	1,302,283	1,310,740
Modified distillers wet grains (MDWG)							
40% to 64% moisture	582,926	466,269	505,762	470,528	455,581	414,953	430,169
Wet mill							
Corn germ meal	48,319	44,421	48,872	46,599	50,169	45,709	48,269
Corn gluten feed	268,446	247,817	292,483	269,495	264,606	270,060	277,997
Corn gluten meal	117,945	108,496	117,550	109,135	114,453	110,430	119,450
Wet corn gluten feed							
40% to 60% moisture	208,090	185,051	187,120	194,485	193,092	179,905	224,484
Dry and wet mill							
Carbon dioxide captured ¹	213,294	195,862	213,846	198,722	218,999	225,597	207,926

See footnote(s) at end of table.

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Dry and Wet Mill, Corn Consumed – United States: 2023 (continued)

Purpose	August 2023	September 2023	October 2023	November 2023	December 2023	Total 2023
	(1,000 bushels)	(1,000 bushels)	(1,000 bushels)	(1,000 bushels)	(1,000 bushels)	(1,000 bushels)
Consumed for alcohol production						
Beverage alcohol	4,956	5,381	6,421	5,351	3,795	62,842
Fuel alcohol	441,696	428,419	462,347	457,162	484,226	5,299,594
Dry mill	405,910	394,150	425,311	421,379	445,126	4,873,079
Wet mill	35,786	34,269	37,036	35,783	39,100	426,515
Industrial alcohol	4,828	4,255	4,750	6,116	6,361	67,256
Consumed for other purposes						
Total wet mill products other than fuel	37,527	38,353	38,329	38,331	37,002	465,455

Dry and Wet Mill, Co-products and Products Produced – United States: 2023 (continued)

Co-products and products	August 2023	September 2023	October 2023	November 2023	December 2023	Total 2023
	(tons)	(tons)	(tons)	(tons)	(tons)	(tons)
Dry mill						
Condensed distillers solubles (CDS - syrup)	118,801	104,989	114,333	122,984	95,804	1,233,311
Corn oil (Corn Distillers Oil - CDO)	183,162	174,346	189,026	188,008	184,244	2,152,752
Distillers dried grains (DDG)	400,511	370,584	402,622	399,555	388,932	4,656,455
Distillers dried grains with solubles (DDGS)	1,808,403	1,723,588	1,850,921	1,796,675	1,949,450	21,003,269
Distillers wet grains (DWG) 65% or more moisture	1,298,780	1,308,617	1,375,237	1,367,046	1,398,380	15,694,378
Modified distillers wet grains (MDWG) 40% to 64% moisture	396,043	390,670	425,030	453,944	482,524	5,474,399
Wet mill						
Corn germ meal	50,251	54,432	53,397	61,690	56,349	608,477
Corn gluten feed	257,948	246,782	265,908	242,462	245,983	3,149,987
Corn gluten meal	127,748	107,988	116,953	110,684	113,012	1,373,844
Wet corn gluten feed 40% to 60% moisture	207,397	196,264	212,424	202,534	209,818	2,400,664
Dry and wet mill						
Carbon dioxide captured ¹	233,525	203,013	223,201	198,060	205,725	2,537,770

¹ Total may not add due to rounding.

Statistical Methodology

Survey Procedures: *Grain Crushings and Co-Products Production* is part of the Current Agricultural Industrial Reports (CAIR) program. CAIR reports are administered under NASS's Census of Agriculture program. Response to CAIR surveys are required by law (Title 7, U.S. Code). Data are collected from all known mills that produce ethanol.

The census universe was determined during operation profile interviews which were completed for each potential facility to identify the presence of ethanol production in 2014. During the operation profile, facilities that met the survey criteria were asked for the nameplate production capacity. The operation profile also documented the manner in which the firm will report. A firm headquarters can report for all milling locations or each location can report separately.

In the Dry Mill Producers and Wet Mill Producers survey questionnaires, mills are asked for previous calendar month data on feedstocks consumed, products and co-products produced. Mills are mailed questionnaires with the options of completing the survey by mail or by Electronic Data Reporting (EDR). For surveys not received in a reasonable amount of time, telephone follow-up is conducted.

Estimating Procedures: Imputation is done for operations with non-response by using historical data and current data relationships. Data for reporting firms are added to estimates for non-reporting firms to obtain National totals.

Revision Policy: Data are revised the following month based on late reports or corrected data. Final figures are published in the annual summary of the following year.

Reliability: Approximately 130 reports are received each month which represent about 90 percent of total capacity. Monthly data can vary due to different firms reporting month to month. Survey data are also subject to non-sampling errors such as omissions and mistakes in reporting and in processing the data. While these errors cannot be measured directly, they are minimized by carefully reviewing 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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- 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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