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Grain Crashings and Co- Products Production 2021 Summary

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2021 Grain Crushings and Co-Products Production

As part of the Current Agricultural Industrial Reports (CAIR) program, the 2021 Annual Summary of the Grain Crushings and Co-Products Production contains data and annual totals for January through December 2021.

Total corn consumed for alcohol for 2021 was 5.28 billion bushels, up 7 percent from 2020. Corn for beverage alcohol in 2021 totaled 43.8 million bushels, up 3 percent from 2020. Corn for fuel alcohol was 5.15 billion bushels in 2021, up 8 percent from 2020.

Dry mill co-product production of distillers dried grains with solubles (DDGS) was 22.2 million tons during 2021, up 10 percent from 2020. Distillers wet grains (DWG) 65 percent or more moisture was 13.9 million tons in 2021, up 12 percent from 2020. Distillers dried grain (DDG) was 4.14 million tons in 2021, up 9 percent from 2020.

Wet mill corn gluten feed production was 3.37 million tons during 2021, down 2 percent from 2020. Wet corn gluten feed 40 to 60 percent moisture was 2.47 million tons, down 5 percent from 2020.

Dry and wet mill carbon dioxide captured was 2.70 million tons in 2021, up 18 percent from 2020.

Dry and Wet Mill, Corn Consumed – United States: 2021

Purpose	January 2021	February 2021	March 2021	April 2021	May 2021	June 2021	July 2021
	(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	3,291	2,755	3,721	3,658	3,852	3,708	3,642
Fuel alcohol	417,027	332,926	420,374	407,524	448,001	439,529	450,321
Dry mill	375,757	302,663	384,842	371,265	410,696	402,866	411,026
Wet mill	41,270	30,263	35,532	36,259	37,305	36,663	39,295
Industrial alcohol	7,331	6,684	7,445	6,516	7,011	6,244	6,065
Consumed for other purposes							
Total wet mill products other than fuel	39,282	34,022	42,159	43,517	44,492	41,881	43,370

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Dry Mill, Sorghum Consumed – United States: 2021

Purpose	January 2021	February 2021	March 2021	April 2021	May 2021	June 2021	July 2021
	(1,000 cwt)	(1,000 cwt)	(1,000 cwt)	(1,000 cwt)	(1,000 cwt)	(1,000 cwt)	(1,000 cwt)
Fuel alcohol	(D)	(D)	-	(D)	115	356	323

See footnote(s) at end of table.

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Dry and Wet Mill, Co-products and Products Produced – United States: 2021

Co-products and products	January 2021	February 2021	March 2021	April 2021	May 2021	June 2021	July 2021
	(tons)	(tons)	(tons)	(tons)	(tons)	(tons)	(tons)
Condensed distillers solubles (CDS - syrup)	79,610	92,525	90,530	86,074	95,299	102,483	88,506
Corn oil (Corn Distillers Oil - CDO)	148,527	117,903	156,903	149,431	168,904	171,344	176,712
Distillers dried grains (DDG)	342,557	262,261	368,075	342,870	380,620	370,694	341,136
Distillers dried grains with solubles (DDGS)	1,753,401	1,406,427	1,803,494	1,768,002	1,942,762	1,925,037	1,970,139
Distillers wet grains (DWG) 65% or more moisture	1,042,660	885,932	1,114,039	1,078,944	1,084,238	1,114,200	1,122,403
Modified distillers wet grains (DWG) 40% to 64% moisture	415,857	377,688	391,913	373,090	344,779	411,900	399,669
Wet mill							
Corn germ meal	53,242	44,416	50,088	63,568	64,607	56,403	63,732
Corn gluten feed	282,163	217,605	266,308	291,558	299,123	287,839	304,527
Corn gluten meal	116,178	97,680	113,365	113,905	114,135	112,189	103,107
Wet corn gluten feed 40% to 60% moisture	214,623	169,005	206,831	202,491	208,575	207,751	209,836
Dry and wet mill							
Carbon dioxide captured	193,297	182,552	237,819	225,169	229,471	227,969	233,402

See footnote(s) at end of table.

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Dry and Wet Mill, Corn Consumed – United States: 2021 (continued)

Purpose	August 2021	September 2021	October 2021	November 2021	December 2021	Total 2021
	(1,000 bushels)	(1,000 bushels)	(1,000 bushels)	(1,000 bushels)	(1,000 bushels)	(1,000 bushels)
Consumed for alcohol production						
Beverage alcohol	2,372	3,413	3,837	4,790	4,740	43,779
Fuel alcohol	416,836	407,131	467,952	466,867	477,878	5,152,366
Dry mill	385,658	371,207	427,001	429,207	439,172	4,711,360
Wet mill	31,178	35,924	40,951	37,660	38,706	441,006
Industrial alcohol	7,291	7,014	6,092	6,362	8,072	82,127
Consumed for other purposes						
Total wet mill products other than fuel	43,719	39,171	41,748	40,792	40,651	494,804

- Represents zero.

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

Dry Mill, Sorghum Consumed – United States: 2021 (continued)

Purpose	August 2021	September 2021	October 2021	November 2021	December 2021	Total 2021
	(1,000 cwt)	(1,000 cwt)	(1,000 cwt)	(1,000 cwt)	(1,000 cwt)	(1,000 cwt)
Fuel alcohol	295	269	693	(D)	(D)	(D)

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

Dry and Wet Mill, Co-products and Products Produced – United States: 2021 (continued)

Co-products and products	August 2021	September 2021	October 2021	November 2021	December 2021	Total 2021
	(tons)	(tons)	(tons)	(tons)	(tons)	(tons)
Dry mill						
Condensed distillers solubles (CDS - syrup)	76,361	85,920	95,239	87,051	94,168	1,073,766
Corn oil (Corn Distillers Oil - CDO)	168,224	155,918	183,804	187,291	194,497	1,979,458
Distillers dried grains (DDG)	295,254	293,344	383,939	379,071	383,196	4,143,017
Distillers dried grains with solubles (DDGS)	1,827,378	1,761,034	1,948,812	1,997,444	2,073,188	22,177,118
Distillers wet grains (DWG) 65% or more moisture	1,170,789	1,187,941	1,299,324	1,328,995	1,422,171	13,851,636
Modified distillers wet grains (DWG) 40% to 64% moisture	395,054	423,404	396,748	515,758	546,625	4,992,485
Wet mill						
Corn germ meal	54,576	57,868	65,635	61,842	63,314	699,291
Corn gluten feed	274,358	280,232	300,634	278,434	285,387	3,368,168
Corn gluten meal	106,050	106,657	108,083	110,303	107,003	1,308,655
Wet corn gluten feed 40% to 60% moisture	205,634	208,335	212,455	211,260	214,346	2,471,142
Dry and wet mill						
Carbon dioxide captured	229,244	234,343	236,582	219,586	251,666	2,701,101

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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Joshua Bates – Oats, Soybeans	(202) 690-3234
David Colwell – Current Agricultural Industrial Reports.....	(202) 720-8800
Michelle Harder – Barley, County Estimates, Hay.....	(202) 690-8533
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Greg Lemmons – Corn, Flaxseed, Proso Millet	(202) 720-9526
Becky Sommer – Cotton, Cotton Ginnings, Sorghum.....	(202) 720-5944
Travis Thorson – Sunflower, Other Oilseeds	(202) 720-7369
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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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