



Fats and Oils: Oilseed Crashings, Production, Consumption and Stocks

ISSN: 2379-9862

Released May 1, 2023, by the National Agricultural Statistics Service (NASS), Agricultural Statistics Board, United States Department of Agriculture (USDA).

Highlights

February 2023 contained 28 days.

March 2023 contained 31 days.

Soybeans crushed for crude oil was 5.94 million tons (198 million bushels) in March 2023, compared with 5.31 million tons (177 million bushels) in February 2023 and 5.79 million tons (193 million bushels) in March 2022. Crude oil produced was 2.34 billion pounds up 12 percent from February 2023 and up 3 percent from March 2022. Soybean once refined oil production at 1.81 billion pounds during March 2023 increased 9 percent from February 2023 and increased 1 percent from March 2022.

Canola seeds crushed for crude oil was 191,291 tons in March 2023, compared with 177,907 tons in February 2023 and 163,923 tons in March 2022. Canola crude oil produced was 155 million pounds, up 9 percent from February 2023 and up 24 percent from March 2022. Canola once refined oil production, at 152 million pounds during March 2023, was up 4 percent from February 2023 and up 1 percent from March 2022.

Cottonseed once refined oil production, at 31.5 million pounds during March 2023, was down 9 percent from February 2023 and down 33 percent from March 2022.

Edible tallow production was 91.5 million pounds during March 2023, down 15 percent from February 2023 but up 19 percent from March 2022. Inedible tallow production was 374 million pounds during March 2023, up 2 percent from February 2023 and up 19 percent from March 2022. Technical tallow production was 100 million pounds during March 2023, down 7 percent from February 2023 and down 8 percent from March 2022. Choice white grease production, at 119 million pounds during March 2023, increased 4 percent from February 2023 but decreased 2 percent from March 2022.

Soybean Crushing, Production, Consumption and Stocks – United States: March 2023 with Comparisons

Item	March 2022	February 2023	March 2023
Crush			
Soybeans crushed..... tons	5,786,159	5,306,995	5,939,012
Crude oil produced.....1,000 pounds	2,277,541	2,091,218	2,339,581
Cake and meal produced..... tons	4,249,054	3,934,588	4,402,548
For animal feed..... tons	4,190,876	3,897,622	4,358,712
For edible protein products..... tons	58,178	36,966	43,836
Millfeed produced..... tons	300,577	262,996	295,613
Refine			
Crude oil processed in refining.....1,000 pounds	1,831,109	1,696,242	1,853,676
Once refined oil produced.....1,000 pounds	1,787,939	1,662,072	1,811,949
Consumption			
Crude oil removed for inedible use in processing.....1,000 pounds	161,282	(D)	(D)
Once refined oil removed for use in processing.....1,000 pounds	1,831,900	1,653,129	1,833,386
Removed for edible use in processing.....1,000 pounds	1,386,180	1,165,502	1,306,300
Removed for inedible use in processing.....1,000 pounds	445,720	487,627	527,086
Stocks			
Cake and meal on hand end of month..... tons	347,191	430,341	324,292
Millfeed on hand end of month..... tons	33,777	45,318	54,758
Crude oil on hand end of month.....1,000 pounds	2,084,253	1,902,382	1,946,997
Crusher.....1,000 pounds	986,203	1,004,199	1,010,089
Refiner.....1,000 pounds	390,616	287,238	308,795
Offsite.....1,000 pounds	707,434	610,945	628,113
Once refined oil on hand end of month.....1,000 pounds	349,465	461,415	440,516

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

Soybean Crushing – Regional: March 2023 with Comparisons

Region	Soybeans crushed		
	March 2022	February 2023	March 2023
	(tons)	(tons)	(tons)
Illinois	675,525	637,413	716,050
Iowa.....	1,201,743	1,114,094	1,254,041
North and East ¹	1,307,652	1,214,284	1,325,535
North Central ²	964,389	882,404	993,561
South, West and Pacific ³	669,125	610,874	677,617
West Central ⁴	967,725	847,926	972,208
Region	Crude oil produced		
	March 2022	February 2023	March 2023
	(1,000 pounds)	(1,000 pounds)	(1,000 pounds)
Illinois	265,000	244,933	290,186
Iowa.....	478,317	441,149	496,091
North and East ¹	512,552	470,795	510,961
North Central ²	374,489	345,272	381,024
South, West and Pacific ³	257,838	234,916	261,056
West Central ⁴	389,345	354,153	400,263
Region	Crude oil stocks at crusher		
	March 2022	February 2023	March 2023
	(1,000 pounds)	(1,000 pounds)	(1,000 pounds)
Illinois	136,293	(D)	166,220
Iowa.....	205,612	211,806	210,635
North and East ¹	209,325	234,704	229,345
North Central ²	252,019	223,356	224,344
South, West and Pacific ³	63,585	(D)	66,278
West Central ⁴	119,369	103,501	113,267
Region	Cake and meal produced		
	March 2022	February 2023	March 2023
	(tons)	(tons)	(tons)
Illinois	487,917	465,380	512,452
Iowa.....	886,163	837,061	941,704
North and East ¹	954,196	903,185	982,273
North Central ²	710,466	653,356	743,481
South, West and Pacific ³	491,191	448,156	498,227
West Central ⁴	719,121	627,450	724,411
Region	Cake and meal stocks		
	March 2022	February 2023	March 2023
	(tons)	(tons)	(tons)
Illinois	42,072	90,912	59,678
Iowa.....	50,613	60,064	42,980
North and East ¹	117,923	134,621	103,484
North Central ²	38,943	57,223	45,030
South, West and Pacific ³	55,829	34,027	35,429
West Central ⁴	41,811	53,494	37,691

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

¹ North and East includes Indiana, Kentucky, Maryland, Ohio, Pennsylvania and Virginia.

² North Central includes Michigan, Minnesota, North Dakota and South Dakota.

³ South, West, and Pacific includes Alabama, Arkansas, California, Georgia, Louisiana, Mississippi, North Carolina and South Carolina.

⁴ West Central includes Kansas, Missouri and Nebraska.

**Selected Oilseed Crushing, Production, Consumption and Stocks – United States: March 2023
with Comparisons**

Item	March 2022	February 2023	March 2023
Canola			
Crush			
Seeds crushed..... tons	163,923	177,907	191,291
Crude oil produced.....1,000 pounds	124,427	142,424	154,876
Cake and meal produced..... tons	94,188	104,119	112,018
Refine			
Crude oil processed in refining.....1,000 pounds	155,433	151,767	156,645
Once refined oil produced.....1,000 pounds	150,795	147,045	152,471
Consumption			
Crude oil removed for inedible use in processing.....1,000 pounds	(D)	(D)	(D)
Once refined oil removed for use in processing.....1,000 pounds	144,668	149,853	157,923
Removed for edible use in processing.....1,000 pounds	(D)	(D)	(D)
Removed for inedible use in processing.....1,000 pounds	(D)	(D)	(D)
Stocks			
Cake and meal on hand end of month..... tons	38,634	(D)	(D)
Crude oil on hand end of month.....1,000 pounds	52,639	70,893	74,092
Once refined oil on hand end of month.....1,000 pounds	84,414	99,337	103,413
Cottonseed			
Crush			
Seeds crushed..... tons	132,455	127,037	136,880
Crude oil produced.....1,000 pounds	34,759	35,674	33,483
Cake and meal produced..... tons	56,954	52,320	55,723
Refine			
Crude oil processed in refining.....1,000 pounds	48,588	35,631	32,132
Once refined oil produced.....1,000 pounds	47,266	34,778	31,507
Consumption			
Crude oil removed for inedible use in processing.....1,000 pounds	(D)	(D)	(D)
Once refined oil removed for use in processing.....1,000 pounds	46,454	36,027	28,335
Removed for edible use in processing.....1,000 pounds	(D)	(D)	(D)
Removed for inedible use in processing.....1,000 pounds	(D)	(D)	(D)
Stocks			
Cake and meal on hand end of month..... tons	8,593	23,208	23,316
Crude oil on hand end of month.....1,000 pounds	(D)	(D)	(D)
Once refined oil on hand end of month.....1,000 pounds	25,086	34,549	38,214
Coconut			
Refine			
Crude oil processed in refining.....1,000 pounds	40,918	47,251	32,135
Once refined oil produced.....1,000 pounds	40,352	46,651	31,550
Consumption			
Crude oil removed for inedible use in processing.....1,000 pounds	(D)	(D)	(D)
Once refined oil removed for use in processing.....1,000 pounds	50,797	50,382	41,167
Removed for edible use in processing.....1,000 pounds	(D)	(D)	(D)
Removed for inedible use in processing.....1,000 pounds	(D)	(D)	(D)
Stocks			
Crude oil on hand end of month.....1,000 pounds	83,829	74,624	78,221
Once refined oil on hand end of month.....1,000 pounds	(D)	(D)	(D)
Corn			
Crush			
Crude oil produced.....1,000 pounds	135,106	142,574	154,472
Refine			
Crude oil processed in refining.....1,000 pounds	162,798	135,395	146,551
Once refined oil produced.....1,000 pounds	158,638	132,630	143,808
Consumption			
Crude oil removed for inedible use in processing.....1,000 pounds	(D)	(D)	(D)
Once refined oil removed for use in processing.....1,000 pounds	144,954	111,553	113,511
Removed for edible use in processing.....1,000 pounds	(D)	(D)	(D)
Removed for inedible use in processing.....1,000 pounds	(D)	(D)	(D)
Stocks			
Crude oil on hand end of month.....1,000 pounds	93,827	107,448	114,118
Once refined oil on hand end of month.....1,000 pounds	84,074	96,370	106,775

See footnote(s) at end of table.

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Selected Oilseed Crushing, Production, Consumption and Stocks – United States: March 2023 with Comparisons (continued)

Item	March 2022	February 2023	March 2023
Palm kernel			
Consumption			
Once refined oil removed for use in processing.....1,000 pounds	46,006	24,699	30,970
Removed for edible use in processing1,000 pounds	(D)	(D)	(D)
Removed for inedible use in processing.....1,000 pounds	(D)	(D)	(D)
Stocks			
Once refined oil on hand end of month.....1,000 pounds	58,658	55,149	57,766
Palm			
Consumption			
Once refined oil removed for use in processing.....1,000 pounds	235,095	193,523	212,217
Removed for edible use in processing1,000 pounds	226,185	190,974	210,370
Removed for inedible use in processing.....1,000 pounds	8,910	2,549	1,847
Stocks			
Once refined oil on hand end of month.....1,000 pounds	404,466	339,582	349,658
Peanut			
Refine			
Crude oil processed in refining.....1,000 pounds	(D)	33,837	18,392
Once refined oil produced.....1,000 pounds	22,764	31,871	17,613
Consumption			
Crude oil removed for inedible use in processing.....1,000 pounds	(D)	(D)	(D)
Once refined oil removed for use in processing.....1,000 pounds	20,821	24,113	21,207
Removed for edible use in processing1,000 pounds	(D)	(D)	(D)
Removed for inedible use in processing.....1,000 pounds	(D)	(D)	(D)
Stocks			
Crude oil on hand end of month.....1,000 pounds	25,664	25,965	25,961
Once refined oil on hand end of month.....1,000 pounds	(D)	(D)	(D)
Safflower			
Refine			
Crude oil processed in refining.....1,000 pounds	(D)	(D)	(D)
Once refined oil produced.....1,000 pounds	(D)	(D)	(D)
Consumption			
Crude oil removed for inedible use in processing.....1,000 pounds	(D)	(D)	(D)
Once refined oil removed for use in processing.....1,000 pounds	1,824	4,899	3,782
Removed for edible use in processing1,000 pounds	(D)	(D)	(D)
Removed for inedible use in processing.....1,000 pounds	(D)	(D)	(D)
Stocks			
Crude oil on hand end of month.....1,000 pounds	(D)	11,444	11,838
Once refined oil on hand end of month.....1,000 pounds	(D)	(D)	(D)
Sunflower			
Refine			
Crude oil processed in refining.....1,000 pounds	41,721	46,913	44,285
Once refined oil produced.....1,000 pounds	40,929	45,343	43,400
Consumption			
Crude oil removed for inedible use in processing.....1,000 pounds	(D)	(D)	(D)
Once refined oil removed for use in processing.....1,000 pounds	37,243	34,611	(D)
Removed for edible use in processing1,000 pounds	(D)	(D)	(D)
Removed for inedible use in processing.....1,000 pounds	(D)	(D)	(D)
Stocks			
Crude oil on hand end of month.....1,000 pounds	(D)	54,115	57,952
Once refined oil on hand end of month.....1,000 pounds	19,266	47,606	50,455
Vegetable foots, raw and acidulated			
Refine			
Oil produced.....1,000 pounds	(D)	(D)	(D)
Consumption			
Oil removed for inedible use in processing.....1,000 pounds	(D)	(D)	(D)
Stocks			
Oil on hand end of month.....1,000 pounds	(D)	(D)	(D)

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

Animal Fats and Oils Production, Consumption and Stocks – United States: March 2023 with Comparisons

Item	March 2022	February 2023	March 2023
	(1,000 pounds)	(1,000 pounds)	(1,000 pounds)
Choice white grease			
Production.....	121,744	114,672	118,738
Removed for inedible use	122,380	116,733	119,212
Stocks on hand end of month.....	6,135	5,752	5,277
Feather meal			
Production.....	83,735	101,084	89,646
Stocks on hand end of month.....	19,273	18,677	18,081
Lard			
Production.....	25,219	22,883	25,655
Removed for use in processing	17,504	19,228	(D)
Removed for edible use in processing.....	(D)	(D)	(D)
Removed for inedible use in processing.....	(D)	(D)	(D)
Stocks on hand end of month.....	16,203	7,107	(D)
Meat meal, meat and bone meal, and dry rendered tankage			
Production.....	465,363	483,855	503,002
Stocks on hand end of month.....	75,961	52,335	54,173
Other grease			
Production.....	36,086	28,077	30,803
Removed for inedible use in processing.....	30,799	27,321	35,115
Stocks on hand end of month.....	(D)	(D)	(D)
Poultry fats			
Production.....	153,766	196,350	173,738
Removed for inedible use in processing	152,313	196,411	171,646
Stocks on hand end of month.....	30,720	25,432	27,229
Poultry by-product meals			
Production.....	291,501	393,727	337,751
Stocks on hand end of month.....	88,029	65,113	57,490
Tallow, edible			
Production.....	76,732	107,107	91,469
Removed for use in processing	75,635	128,932	76,297
Removed for edible use in processing.....	(D)	(D)	(D)
Removed for inedible use in processing.....	(D)	(D)	(D)
Stocks on hand end of month.....	23,823	12,918	(D)
Tallow, inedible			
Production.....	313,741	367,157	374,079
Removed for inedible use in processing	318,145	399,683	378,197
Stocks on hand end of month.....	110,218	83,198	79,080
Tallow, technical			
Production.....	108,555	107,979	99,955
Removed for inedible use in processing	109,079	110,967	101,622
Stocks on hand end of month.....	(D)	(D)	(D)
Yellow grease			
Production.....	181,127	177,582	199,791
Removed for inedible use in processing	153,284	160,856	210,972
Stocks on hand end of month.....	116,420	113,840	102,566

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

Statistical Methodology

Survey Procedures: *Fats and Oils: Oilseed Crushings, Production, Consumption and Stocks* 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). Animal and vegetable fats and oils data are collected from all known facilities that crush, refine or render. Crushing facilities include processors that use either solvent extraction or continuous screw press.

The census universe was determined during operation profile interviews which were completed for each potential facility to identify the presence of rendering, oilseeds crushing, and crude oil refining in 2014.

In the Animal and Vegetable Fats and Oils survey questionnaire, facilities are asked for previous calendar month data on oilseed crushing, crude oil production, once refined oil production, rendering production, and end of month stocks. Facilities 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: Survey data are based on a census of all known facilities and therefore, have no sampling variability. 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

Lance Honig, Chief, Crops Branch.....	(202) 720-2127
Chris Hawthorn, Head, Field Crops Section	(202) 720-2127
Irwin Anolik – Crop Progress and Condition.....	(202) 720-7621
Joshua Bates – Hemp, Oats, Soybeans.....	(202) 690-3234
Natasha Bruton – Barley, Cotton System Consumption, and Stocks, Grain Crushings	(202) 690-1042
David Colwell – Fats and Oils, Flour Milling Products	(202) 720-8800
Michelle Harder –County Estimates, Hay.....	(202) 690-8533
James Johanson – Rye, Wheat.....	(202) 720-8068
Chris Hawthorn – Corn, Flaxseed, Proso Millet.....	(202) 720-2127
Becky Sommer – Cotton, Cotton Ginnings, Sorghum.....	(202) 720-5944
Travis Thorson – Sunflower, Other Oilseeds	(202) 720-7369
Lihan Wei – Peanuts, Rice.....	(202) 720-7688

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