



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

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Highlights

August 2023 contained 31 days.

September 2023 contained 30 days.

Soybeans crushed for crude oil was 5.24 million tons (175 million bushels) in September 2023, compared with 5.07 million tons (169 million bushels) in August 2023 and 5.03 million tons (168 million bushels) in September 2022. Crude oil produced was 2.08 billion pounds, up 3 percent from August 2023 and up 4 percent from September 2022. Soybean once refined oil production at 1.73 billion pounds during September 2023 increased 1 percent from August 2023 and increased 4 percent from September 2022.

Canola seeds crushed for crude oil was 217,153 tons in September 2023, compared with 190,420 tons in August 2023 and 189,285 tons in September 2022. Canola crude oil produced was 170 million pounds, up 10 percent from August 2023 and up 15 percent from September 2022. Canola once refined oil production, at 148 million pounds during September 2023, was down 5 percent from August 2023 and down 6 percent from September 2022.

Cottonseed once refined oil production, at 36.5 million pounds during September 2023, was up 24 percent from August 2023.

Edible tallow production was 93.8 million pounds during September 2023, up 9 percent from August 2023 and up 4 percent from September 2022. Inedible tallow production was 297 million pounds during September 2023, down 5 percent from August 2023 and down 16 percent from September 2022. Technical tallow production was 102 million pounds during September 2023, down 6 percent from August 2023 and down 1 percent from September 2022. Choice white grease production, at 99 million pounds during September 2023, decreased 21 percent from August 2023 and decreased 7 percent from September 2022.

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

Item	September 2022	August 2023	September 2023
Crush			
Soybeans crushed tons	5,028,287	5,069,870	5,242,931
Crude oil produced1,000 pounds	1,992,964	2,014,153	2,077,074
Cake and meal produced tons	3,666,107	3,767,064	3,843,681
For animal feed..... tons	3,620,872	3,725,124	3,799,238
For edible protein products..... tons	45,235	41,940	44,443
Millfeed produced tons	258,932	262,828	261,939
Refine			
Crude oil processed in refining1,000 pounds	1,701,254	1,740,710	1,765,874
Once refined oil produced1,000 pounds	1,658,467	1,709,814	1,729,481
Consumption			
Crude oil removed for inedible use in processing.....1,000 pounds	164,392	187,120	207,193
Once refined oil removed for use in processing1,000 pounds	1,671,169	1,723,766	1,714,076
Removed for edible use in processing.....1,000 pounds	1,213,668	1,237,914	1,211,428
Removed for inedible use in processing1,000 pounds	457,501	485,852	502,648
Stocks			
Cake and meal on hand end of month tons	276,973	280,335	327,574
Millfeed on hand end of month tons	33,954	36,506	43,317
Crude oil on hand end of month1,000 pounds	1,590,053	1,353,202	1,184,515
Crusher.....1,000 pounds	747,228	759,927	716,347
Refiner.....1,000 pounds	268,633	226,337	189,113
Offsite.....1,000 pounds	574,192	366,938	279,055
Once refined oil on hand end of month1,000 pounds	401,095	419,181	417,721

Soybean Crushing – Regional: September 2023 with Comparisons

Region	Soybeans crushed		
	September 2022	August 2023	September 2023
	(tons)	(tons)	(tons)
Illinois	450,904	580,856	500,038
Iowa.....	1,121,016	1,042,112	1,150,596
North and East ¹	1,184,202	1,087,196	1,170,105
North Central ²	902,879	867,419	935,683
South, West and Pacific ³	636,007	643,980	618,491
West Central ⁴	733,279	848,307	868,018
Region	Crude oil produced		
	September 2022	August 2023	September 2023
	(1,000 pounds)	(1,000 pounds)	(1,000 pounds)
Illinois	175,570	240,628	203,793
Iowa.....	446,591	412,262	458,282
North and East ¹	467,892	427,894	462,445
North Central ²	347,749	342,056	360,547
South, West and Pacific ³	240,616	245,346	241,627
West Central ⁴	314,546	345,967	350,380
Region	Crude oil stocks at crusher		
	September 2022	August 2023	September 2023
	(1,000 pounds)	(1,000 pounds)	(1,000 pounds)
Illinois	70,180	109,477	89,170
Iowa.....	156,472	87,979	78,734
North and East ¹	125,113	202,148	194,304
North Central ²	205,582	161,842	153,435
South, West and Pacific ³	55,370	56,196	69,669
West Central ⁴	134,511	142,285	131,035
Region	Cake and meal produced		
	September 2022	August 2023	September 2023
	(tons)	(tons)	(tons)
Illinois	319,087	426,172	365,865
Iowa.....	825,656	776,902	844,963
North and East ¹	865,132	803,244	847,236
North Central ²	674,000	651,305	694,395
South, West and Pacific ³	449,121	474,345	451,730
West Central ⁴	533,111	635,096	639,492
Region	Cake and meal stocks		
	September 2022	August 2023	September 2023
	(tons)	(tons)	(tons)
Illinois	73,658	41,202	66,428
Iowa.....	38,619	42,620	64,796
North and East ¹	62,441	86,195	62,504
North Central ²	32,105	31,836	40,263
South, West and Pacific ³	39,187	35,776	56,154
West Central ⁴	30,963	42,706	37,429

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: September 2023 with Comparisons

Item	September 2022	August 2023	September 2023
Canola			
Crush			
Seeds crushed..... tons	189,285	190,420	217,153
Crude oil produced 1,000 pounds	148,457	154,318	170,450
Cake and meal produced tons	106,555	111,691	124,247
Refine			
Crude oil processed in refining 1,000 pounds	161,809	160,571	152,413
Once refined oil produced 1,000 pounds	156,674	155,251	147,903
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	152,356	169,926	135,704
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	42,442	57,862	(D)
Crude oil on hand end of month 1,000 pounds	61,082	44,484	59,127
Once refined oil on hand end of month 1,000 pounds	108,468	91,947	103,948
Cottonseed			
Crush			
Seeds crushed..... tons	(D)	114,845	116,030
Crude oil produced 1,000 pounds	(D)	26,651	28,397
Cake and meal produced..... tons	(D)	52,983	52,968
Refine			
Crude oil processed in refining 1,000 pounds	(D)	30,096	37,556
Once refined oil produced 1,000 pounds	(D)	29,401	36,499
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	34,079	29,774	43,935
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	22,316	35,775	33,256
Crude oil on hand end of month 1,000 pounds	(D)	(D)	(D)
Once refined oil on hand end of month 1,000 pounds	23,698	25,250	22,118
Coconut			
Refine			
Crude oil processed in refining 1,000 pounds	43,015	31,646	(D)
Once refined oil produced 1,000 pounds	42,353	31,194	(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	53,868	59,053	44,208
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	91,128	89,686	77,085
Once refined oil on hand end of month 1,000 pounds	(D)	(D)	(D)
Corn			
Crush			
Crude oil produced 1,000 pounds	141,157	135,681	121,868
Refine			
Crude oil processed in refining 1,000 pounds	160,593	147,260	155,872
Once refined oil produced 1,000 pounds	155,894	142,093	149,662
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	144,868	145,624	121,609
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	78,989	76,654	71,026
Once refined oil on hand end of month 1,000 pounds	69,284	51,351	51,575

See footnote(s) at end of table.

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

Item	September 2022	August 2023	September 2023
Palm kernel			
Consumption			
Once refined oil removed for use in processing..... 1,000 pounds	40,789	30,803	24,982
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			
Once refined oil on hand end of month..... 1,000 pounds	43,553	48,117	71,122
Palm			
Consumption			
Once refined oil removed for use in processing..... 1,000 pounds	229,008	211,348	199,137
Removed for edible use in processing 1,000 pounds	222,144	201,911	186,680
Removed for inedible use in processing..... 1,000 pounds	6,864	9,437	12,457
Stocks			
Once refined oil on hand end of month..... 1,000 pounds	353,147	340,693	355,518
Peanut			
Refine			
Crude oil processed in refining..... 1,000 pounds	31,871	36,829	32,232
Once refined oil produced..... 1,000 pounds	30,068	35,580	30,773
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	25,689	32,877	28,587
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	30,061	29,496	27,597
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	(D)	4,446	5,507
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	4,160	14,176	8,026
Once refined oil on hand end of month..... 1,000 pounds	(D)	(D)	(D)
Sunflower			
Refine			
Crude oil processed in refining..... 1,000 pounds	32,257	35,659	36,039
Once refined oil produced..... 1,000 pounds	31,992	33,773	34,891
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	28,923	(D)	24,553
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	(D)	52,507	48,964
Once refined oil on hand end of month..... 1,000 pounds	36,772	29,804	37,792

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

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

Item	September 2022	August 2023	September 2023
	(1,000 pounds)	(1,000 pounds)	(1,000 pounds)
Choice white grease			
Production.....	107,242	126,669	99,486
Removed for inedible use	108,779	126,204	101,832
Stocks on hand end of month	5,828	6,947	5,265
Feather meal			
Production.....	100,523	98,767	93,201
Stocks on hand end of month	19,845	17,247	12,175
Lard			
Production.....	23,174	16,296	26,049
Removed for use in processing	25,478	15,183	27,236
Removed for edible use in processing.....	(D)	(D)	(D)
Removed for inedible use in processing.....	(D)	(D)	(D)
Stocks on hand end of month	6,522	8,132	7,756
Meat meal, meat and bone meal, and dry rendered tankage			
Production.....	493,846	548,565	419,909
Stocks on hand end of month	76,001	57,136	49,467
Other grease			
Production.....	37,643	24,104	22,786
Removed for inedible use in processing	26,959	25,350	21,033
Stocks on hand end of month	(D)	(D)	(D)
Poultry fats			
Production.....	187,018	212,507	196,500
Removed for inedible use in processing	189,937	206,925	198,438
Stocks on hand end of month	24,957	29,637	27,699
Poultry by-product meals			
Production.....	359,934	343,795	315,089
Stocks on hand end of month	81,057	78,500	82,667
Tallow, edible			
Production.....	90,220	85,834	93,804
Removed for use in processing	83,444	87,248	98,212
Removed for edible use in processing.....	(D)	(D)	(D)
Removed for inedible use in processing.....	(D)	(D)	(D)
Stocks on hand end of month	(D)	14,541	10,283
Tallow, inedible			
Production.....	353,930	312,653	296,969
Removed for inedible use in processing	359,980	317,970	307,660
Stocks on hand end of month	115,022	86,388	76,106
Tallow, technical			
Production.....	103,219	108,548	102,495
Removed for inedible use in processing	102,241	108,256	104,554
Stocks on hand end of month	(D)	(D)	(D)
Yellow grease			
Production.....	201,319	171,522	158,779
Removed for inedible use in processing	196,547	179,591	161,066
Stocks on hand end of month	96,934	100,581	98,284

(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
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
Chris Hawthorn – Peanuts, Rice	(202) 720-2127

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