

Flour Milling Products



U.S. Department of Commerce
BUREAU OF THE CENSUS

Seasonal Adjustment Supplement
1971-1978

M20A Supplement
Issued February 1979

This report presents seasonally adjusted data for the years 1971 to 1978 for a number of the more important series published monthly in Current Industrial Reports Series M20A, Flour Milling Products. The data for the years 1959 to 1970

were excluded from this publication because there were no significant changes. These data are available in the M20A Seasonal Adjustment Supplement published on March 31, 1971.

TABLE 1. WHEAT FLOUR PRODUCTION, AVERAGE PER WORKING DAY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SEASONALLY ADJUSTED SERIES--(1,000 CWT. SACKS)												
1971..	1011	997	965	977	1004	991	975	1005	988	954	931	919
1972..	944	931	983	998	998	1024	1012	936	974	966	980	1001
1973..	995	1031	1018	986	999	985	1024	995	976	1020	1002	1027
1974..	1046	1101	991	924	933	959	926	953	1003	993	1038	979
1975..	956	933	958	1029	1031	1021	1065	1047	1068	1069	1080	995
1976..	1071	1011	1057	1084	1081	1069	1086	1157	1052	1062	1034	995
1977..	1060	1145	1180	1058	1061	1044	1044	1060	1075	1028	1089	1072
1978..	1016	1096	1122	1108	1111	1124	1069	1087	1040	1084	1093	1078
ORIGINAL SERIES--(1,000 CWT. SACKS)												
1971..	1045	988	913	894	1011	954	919	1007	1054	1033	957	911
1972..	986	952	916	983	958	961	991	926	1067	1022	1005	1040
1973..	991	1023	978	939	957	962	976	972	1103	1069	1005	1071
1974..	1034	1093	973	867	887	960	878	962	1088	1036	1090	979
1975..	927	925	951	981	1016	980	1008	1083	1132	1100	1171	978
1976..	1062	1054	1003	1017	1106	1015	1048	1169	1117	1147	1062	959
1977..	1076	1136	1121	1042	1053	990	1028	1062	1113	1114	1133	1062
1978..	990	1089	1057	1127	1094	1047	1063	1089	1119	1129	1130	1089
SEASONAL FACTORS WITH TRADING-DAY--PERCENT												
1971..	103.3	99.1	94.6	91.5	100.6	96.2	94.2	100.2	106.6	108.2	102.7	99.0
1972..	104.4	102.2	93.1	98.4	95.9	93.8	97.9	98.9	109.5	105.8	102.5	103.8
1973..	99.6	99.2	96.0	95.2	95.7	97.6	95.3	97.7	113.0	104.8	100.3	104.2
1974..	98.8	99.2	98.1	93.8	95.1	100.0	94.8	100.9	108.4	104.3	104.9	100.0
1975..	96.9	99.1	99.3	95.3	98.5	96.0	94.6	103.4	106.0	102.8	108.4	98.2
1976..	99.1	104.2	94.9	93.8	102.3	94.9	96.5	101.0	106.1	107.9	102.6	96.3
1977..	101.4	99.2	95.0	98.5	99.2	94.7	95.8	99.1	110.0	108.4	104.0	99.0
1978..	97.4	99.3	94.2	101.7	98.4	93.1	99.4	100.2	107.6	104.1	103.4	101.0
SEASONAL FACTORS WITH TRADING-DAY, ONE YEAR AHEAD--PERCENT												
1979..	96.0	99.4	97.4	97.9	98.4	97.2	95.8	99.1	110.5	102.6	101.5	101.8

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TABLE 2. MILLFEED PRODUCTION

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SEASONALLY ADJUSTED SERIES--(1,000 TONS)												
1971..	362	366	358	356	363	368	359	365	357	347	335	347
1972..	355	343	358	366	366	370	361	345	352	358	359	364
1973..	372	371	361	365	365	360	368	367	365	361	370	373
1974..	381	379	378	355	350	354	353	358	381	393	407	383
1975..	368	353	365	414	397	400	404	396	404	419	386	391
1976..	398	384	394	412	406	409	428	432	419	413	404	403
1977..	419	431	431	413	405	397	383	397	386	386	410	419
1978..	393	406	413	408	417	413	401	393	390	412	415	400
ORIGINAL SERIES--(1,000 TONS)												
1971..	361	345	363	335	347	366	349	378	378	368	338	351
1972..	356	342	361	338	359	363	343	369	369	384	361	358
1973..	383	353	366	334	362	349	355	388	381	393	367	364
1974..	395	361	375	336	342	339	347	383	394	433	401	375
1975..	371	336	366	396	389	378	403	417	429	453	377	386
1976..	396	373	408	392	392	401	419	464	442	435	403	395
1977..	403	409	456	392	398	389	366	435	401	406	413	410
1978..	381	385	430	385	417	402	384	438	400	436	416	381
SEASONAL FACTORS WITH TRADING-DAY--PERCENT												
1971..	99.7	94.1	101.2	94.0	95.4	99.5	97.1	103.5	105.6	106.0	100.9	100.9
1972..	100.2	99.6	100.7	92.3	97.9	98.1	95.0	106.8	104.7	107.2	100.5	98.1
1973..	102.7	95.0	101.2	91.4	99.1	96.8	96.4	105.5	104.3	108.9	99.2	97.4
1974..	103.6	95.1	99.2	94.4	97.5	95.6	98.1	106.8	103.4	110.2	98.3	97.9
1975..	100.6	95.1	100.2	95.6	98.0	94.5	99.5	105.2	105.9	107.9	97.5	98.6
1976..	99.5	97.1	103.5	95.0	96.4	98.0	97.9	107.4	105.4	105.2	99.7	97.9
1977..	96.0	94.8	105.7	94.7	98.2	97.9	96.8	109.5	101.0	105.0	100.6	97.7
1978..	96.8	94.7	103.9	94.4	99.9	97.3	95.6	111.4	102.4	105.7	100.1	95.2
SEASONAL FACTORS WITH TRADING-DAY, ONE YEAR AHEAD--PERCENT												
1979..	98.0	94.6	104.3	93.7	101.6	96.7	96.8	109.5	101.3	106.9	99.4	95.2

TABLE 3. WHEAT GROUND FOR FLOUR

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SEASONALLY ADJUSTED SERIES--(1,000 BUSHEL)												
1971..	46740	46289	46334	46063	46873	47581	46670	47936	46708	45285	44270	45444
1972..	46043	44482	46509	47105	47766	48686	46549	44480	45532	46920	46546	46854
1973..	47508	47711	47174	47505	47111	46475	47730	47374	47109	46184	47656	48753
1974..	48830	48789	47793	45013	44566	45077	44601	44781	47407	48897	49781	47172
1975..	45724	43833	44817	50663	48856	49387	50204	49123	50384	52565	48432	48755
1976..	49978	48880	50180	52304	51267	51641	53439	54587	51740	51650	50376	50711
1977..	52359	53775	54965	51443	50954	50196	48499	50659	49609	49905	52846	53399
1978..	49714	51788	53010	53000	53821	53196	52176	50886	48335	52742	52728	51435
ORIGINAL SERIES--(1,000 BUSHEL)												
1971..	46405	44038	46705	43525	44970	46658	45164	49403	49301	48166	44492	46265
1972..	45942	44464	46882	43792	46897	47174	44155	47459	47713	50121	46822	46380
1973..	48559	45438	47790	43717	46800	44713	45647	49944	49154	50325	47274	47926
1974..	50404	46416	47498	42657	43535	42932	43565	47665	49104	53771	49135	46280
1975..	46045	41658	44896	48602	47919	46513	49718	51379	53627	56685	47421	48212
1976..	49976	47296	51695	49946	49488	50430	52145	57825	55294	54225	50273	49691
1977..	50852	50840	57635	49184	49688	49072	46149	54844	52244	52352	53159	52106
1978..	48430	48910	54821	50478	53601	51544	49749	56062	50506	55348	52934	48893
SEASONAL FACTORS WITH TRADING-DAY--PERCENT												
1971..	99.3	95.1	100.8	94.5	95.9	98.1	96.8	103.1	105.6	106.4	100.5	101.8
1972..	99.8	100.0	100.8	93.0	98.2	96.9	94.9	106.7	104.8	106.8	100.6	99.0
1973..	102.2	95.2	101.3	92.0	99.3	96.2	95.6	105.4	104.3	109.0	99.2	98.3
1974..	103.2	95.1	99.4	94.8	97.7	95.2	97.7	106.4	103.6	110.0	98.7	98.1
1975..	100.7	95.0	100.2	95.9	98.1	94.2	99.0	104.6	106.4	107.8	97.9	98.9
1976..	100.0	96.8	103.0	95.5	96.5	97.7	97.6	105.9	106.9	105.0	99.8	98.0
1977..	97.1	94.5	104.9	95.6	97.5	97.8	95.8	108.4	103.0	104.9	100.6	97.6
1978..	97.4	94.4	103.4	95.2	99.6	96.9	95.3	110.2	109.5	104.9	100.4	95.1
SEASONAL FACTORS WITH TRADING-DAY, ONE YEAR AHEAD--PERCENT												
1979..	99.1	94.3	103.7	94.5	101.2	96.5	95.8	108.4	103.4	106.7	99.4	95.1

Table 4. AVERAGE PERCENTAGE AND RELATED MEASURES FOR SERIES COMPONENTS

Item	Average percentage changes			Ratio of irregular component to cyclical component (\bar{I}/\bar{C})	Number of months for cyclical dominance (MCD)	I/C for MCD span	Average duration of run			MCD
	Seasonally adjusted series (\bar{C})	Irregular component (\bar{I})	Cyclical component (\bar{C})				\bar{C}	\bar{I}	\bar{C}	
Wheat flour production, average per working day.....	3.14	3.03	.67	4.54	6	1.08	1.62	1.51	4.85	3.15
Millfeed production.....	2.45	2.19	.66	3.30	6	.83	2.08	1.79	4.68	3.41
Wheat ground for flour.....	2.65	2.40	.64	3.78	6	.95	1.96	1.79	4.68	2.93

The seasonal adjustment program largely eliminates the effect of normal seasonal variations (including variations due to vacations, weather, etc.) as measured over the time period for which data were used. The resulting information thus provides a better measure than the original data of the month-to-month variations which are due to factors that are not associated with a repetitive seasonal pattern.

The seasonal adjustments were made using the X-11 variant of the Census Bureau's seasonal adjustment program. This program is amply described in the literature on this method.¹ It should be noted that the data included in this report are adjusted on an establishment basis, prior to tabulation for variation in the length of the reporting period such as 4-week, 5-week, or calendar month.

For each series included in this report the following tables are shown:

- (1) Seasonally-adjusted data
- (2) Data without seasonal adjustment (original series)
- (3) Seasonal adjustment factors. The seasonally-adjusted data are obtained by dividing the unadjusted data by the seasonal factors for the specific month
- (4) Average percentage changes and related measures for each series.

The seasonally adjusted data were developed for each of the detailed series shown. Adjusted data for the summary totals are obtained by summarizing the adjusted lower order totals to higher levels. The seasonal factors for these higher level totals are implied factors developed by dividing the unadjusted data by the adjusted data and will differ somewhat from that which would have been obtained by direct seasonal adjustment of the data.

TRADING-DAY FACTORS

Variations in the rate of activity that arises from the existence of different numbers of trading days in the same month for different years can be an important cause of month-to-month irregular fluctuations. Unlike some other causes of irregular fluctuations such as unexpected economic developments, unusual weather, and statistical errors, trading-day irregularities can be approximately identified and removed so

that the underlying trend-cycle stands out more clearly. Hence, it is often possible to reduce the irregular factor by a trading-day adjustment.

BRIEF DEFINITIONS OF MEASURES SHOWN IN TABLE 4

The following are brief definitions; more complete explanations appear in *Electronic Computers and Business Indicators*, by Julius Shiskin, issued as Occasional Paper 57 by the National Bureau of Economic Research, 1957 (reprinted from *Journal of Business*, October 1957).

\overline{CI} is the average month-to-month percentage change, without regard to sign, in the seasonally adjusted series (i.e., the series after adjustment for measurable seasonal, trading-day, and holiday variations).

\overline{I} is the same for the irregular component, obtained by dividing the cyclical component into the seasonally adjusted series.

\overline{C} is the same for the cyclical component, a smooth, flexible moving average of the seasonally adjusted series.

$\overline{I/C}$ is a measure of the relative smoothness (small values) or irregularity (large values) of the seasonally adjusted series. It is shown for 1-month spans and for spans of the period of MCD. When MCD is "6," no I/C ratio is shown for the MCD period.

MCD (months for cyclical dominance) provides an estimate of the appropriate time span over which to observe cyclical movements in a monthly series. It is small for smooth series and large for irregular series. In deriving MCD, percentage changes are computed separately for the irregular component and the cyclical component over 1-month spans (Jan.-Feb., Feb.-Mar., etc.), 2-month spans (Jan.-Mar., Feb.-Apr., etc.), up to 12-month spans. Averages, without regard to sign, are then computed for the changes over each span. MCD is the shortest span in months for which the average percentage change (without regard to sign) in the cyclical component is larger than the average percentage change (without regard to sign) in their regular component, and remains so. Thus, it indicates the point at which fluctuations in the seasonally adjusted series became dominated by cyclical rather than irregular movements. All series with an MCD greater than "5" are shown as "6."

Average Duration of Run (ADR) is another measure of smoothness and is equal to the average number of consecutive monthly changes in the same direction in any series of observations. When there is no change between 2 months, a change in the same direction as the preceding change is assumed. The ADR is shown for the seasonally adjusted series CI, irregular component I, cyclical component C, and the MCD curve. The MCD is an unweighted moving average (with the number of terms equal to MCD) of the seasonally adjusted series.

¹*Electronic Computers and Business Indicators*, National Bureau of Economic Research Occasional Paper 57 (New York, 1957); *Tests and Revisions of Bureau of the Census Methods of Seasonal Adjustments*, Bureau of the Census Technical Paper No. 5 (Washington, 1961, \$1.00); *The X-11 Variant of the Census Method II Seasonal Adjustment Program*, Bureau of the Census Technical Paper No. 15 (Washington, 1967, \$0.50).

Flour Milling Products



U.S. Department of Commerce
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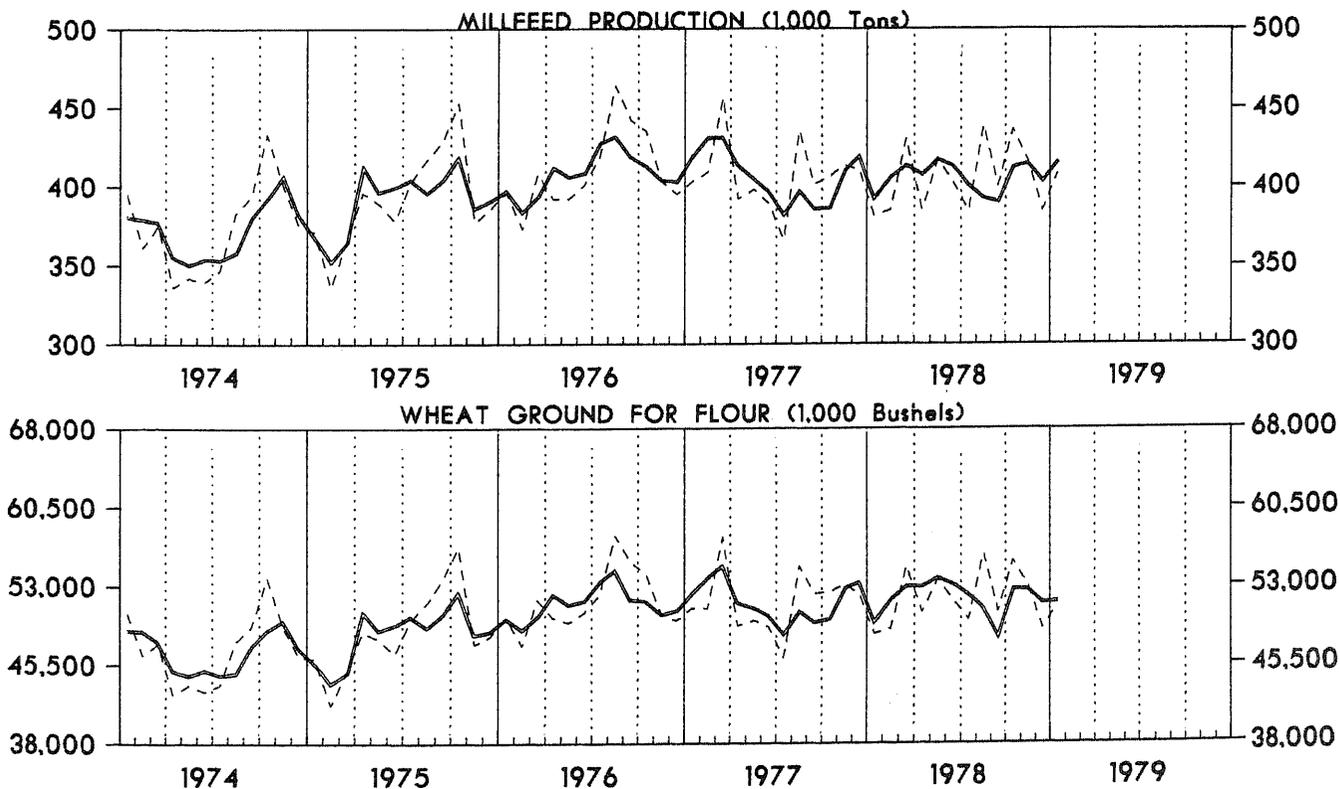
The statistics in this publication are based on a survey of manufacturers and represent total U.S. production of flour milling products. Estimates are included for companies whose

reports were not received in time for tabulation. A more complete description of this survey appears on page 6.

THIS REPORT INCLUDES DATA COMPARING DOMESTIC OUTPUT, EXPORTS, AND IMPORTS

WHEAT FLOUR MILLING, 1974 TO 1979

———— Seasonally Adjusted
- - - - - Not Seasonally Adjusted



Address inquiries concerning these figures to U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233, or call Geraldine Bynum, (301) 763-7807.

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Table 1A. SUMMARY OF WHEAT FLOUR MILLING, SEASONALLY ADJUSTED: 1977 TO 1979

Month and year	Wheat flour production average per working day ¹ (1,000 cwt.)	Millfeed production (1,000 tons)	Wheat ground for flour (1,000 bushels)
1979			
January.....	1,084	416	51,535
1978			
December.....	1,086	404	51,457
November.....	1,093	415	52,728
October.....	1,084	412	52,742
September.....	1,040	390	48,335
August.....	1,087	393	50,886
July.....	1,069	401	52,176
June.....	1,124	413	53,196
May.....	1,111	417	53,821
April.....	1,108	408	53,000
March.....	1,122	413	53,010
February.....	1,096	406	51,788
January.....	1,016	393	49,714
1977			
December.....	1,072	419	53,399
November.....	1,089	410	52,846
October.....	1,028	386	49,905
September.....	1,075	386	49,609
August.....	1,060	397	50,659
July.....	1,044	383	48,499
June.....	1,044	397	50,196
May.....	1,061	405	50,954
April.....	1,058	413	51,443
March.....	1,180	431	54,965
February.....	1,145	431	53,775
January.....	1,060	419	52,359

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Thanksgiving Day, and December 25.

Table 1B. SUMMARY OF WHEAT FLOUR MILLING, NOT SEASONALLY ADJUSTED: 1977 TO 1979

Month and year	Wheat flour production (1,000 cwt.)		Millfeed production (tons)	Wheat ground for flour (1,000 bushels)	Wheat flour mill stocks ² (1,000 cwt.)	Daily 24-hour capacity in wheat flour ² (1,000 cwt.)	Wheat flour produced as percent of capacity	Flour extraction rate ³ (percent)
	Average per working day ¹	Calendar month total						
1979								
January.....	1,041	22,898	407,611	51,064	(NA)	1,049	99.2	74.7
1978								
December.....	1,097	21,942	384,618	48,913	3,214	1,049	104.6	74.8
November.....	1,130	23,738	416,152	52,934	(NA)	1,057	106.9	74.7
October.....	1,129	24,843	436,433	55,348	(NA)	1,057	106.8	74.6
September.....	1,119	22,395	400,263	50,506	3,342	1,057	105.9	73.9
August.....	1,089	25,053	438,773	56,062	(NA)	1,036	105.1	74.4
July.....	1,117	22,335	384,090	49,749	(NA)	1,036	100.1	74.8
June.....	1,047	23,051	401,878	51,544	3,459	1,036	101.1	74.5
May.....	1,094	24,078	417,032	53,601	(NA)	1,034	105.8	74.5
April.....	1,127	22,554	385,227	50,478	(NA)	1,034	109.1	74.5
March.....	1,057	24,330	430,260	54,821	4,096	1,034	102.3	73.8
February.....	1,086	21,738	385,269	48,910	(NA)	1,072	101.4	74.2
January.....	1,037	21,787	380,717	48,430	(NA)	1,072	92.4	74.9
1977								
December.....	1,062	23,363	410,169	52,106	4,160	1,072	99.1	74.7
November.....	1,133	23,785	412,818	53,159	(NA)	1,104	102.6	74.6
October.....	1,114	23,396	406,255	52,352	(NA)	1,104	100.9	74.5
September.....	1,113	23,381	401,384	52,244	3,782	1,104	100.8	74.6
August.....	1,062	24,419	435,359	54,844	(NA)	1,098	96.7	74.2
July.....	1,028	20,566	365,665	46,149	(NA)	1,098	93.7	74.3
June.....	990	21,769	388,922	49,072	4,456	1,098	90.1	73.9
May.....	1,053	22,121	398,051	49,688	(NA)	1,114	94.6	74.2
April.....	1,042	21,877	392,101	49,184	(NA)	1,114	93.5	74.1
March.....	1,121	25,787	456,406	57,635	4,542	1,114	100.6	74.6
February.....	1,136	22,716	408,870	50,840	(NA)	1,041	109.1	74.5
January.....	1,076	22,604	403,353	50,852	(NA)	1,041	103.4	74.1

(NA) Not available.

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Labor day, Thanksgiving Day, and December 25. ²Collected quarterly. ³Wheat flour production as compared with amount of wheat ground.

TABLE 2. QUANTITY OF DURUM WHEAT AND RYE FLOUR PRODUCTION, GRAIN CONSUMPTION
MILL STOCKS, AND CAPACITY

PRODUCT CODE	DESCRIPTION OF ITEM	UNIT OF MEASURE	JANUARY 1979	DECEMBER 1978	JANUARY 1978
	DURUM WHEAT (INCLUDED IN TABLE 1 DATA):				
0011173	DURUM WHEAT GROUND.	M BU	3,013	3,262	3,454
2041153	STRAIGHT SEMOLINA DURUM FLOUR	M CWT	1,350	1,452	1,506
2041155	BLENDED SEMOLINA DURUM FLOUR.	DO	(D)	(D)	(D)
	RYE:				
0011951	RYE GROUND FOR FLOUR.	M BU	325	349	322
2041611	RYE FLOUR PRODUCTION.	M CWT	134	151	147
2041618	RYE MILLFEED PRODUCTION	TONS	1,937	1,975	1,802
2041611	RYE FLOUR STOCKS (1).	M CWT	(NA)	23	(NA)
	24 HOUR CAPACITY (1).	DO	10	10	10

Note: Data include estimates for small mills. Detail may not add to total due to independent rounding. These data exclude all flour blended by macaroni and spaghetti manufacturers, etc., as such activities are not within scope of this survey. Only mills engaged in milling flour or meal are included in this survey.

(D) Withheld to avoid disclosure of figures for individual companies. (NA) Not available.

¹Collected quarterly.

TABLE 3. QUANTITY OF WHEAT GROUND FOR FLOUR AND WHEAT FLOUR PRODUCTION, BY DIVISION AND STATES
(WHEAT GROUND FOR FLOUR IN THOUSANDS OF BUSHEL; WHEAT PRODUCTION IN THOUSANDS OF HUNDREDWEIGHT)

GEOGRAPHIC AREA	JANUARY 1979		DECEMBER 1978		JANUARY 1978	
	WHEAT GROUND FOR FLOUR	WHEAT FLOUR PRODUCTION	WHEAT GROUND FOR FLOUR	WHEAT FLOUR PRODUCTION	WHEAT GROUND FOR FLOUR	WHEAT FLOUR PRODUCTION
UNITED STATES, TOTAL.	51,064	22,898	48,913	21,942	48,430	21,787
MIDDLE ATLANTIC.	7,313	3,306	7,204	3,236	6,087	2,692
NEW YORK.	6,015	2,724	5,862	2,645	4,897	2,162
NORTH CENTRAL.	26,374	11,809	25,265	11,320	26,579	12,106
OHIO.	2,962	1,289	2,674	1,173	2,389	1,032
INDIANA.	1,425	613	1,314	561	1,148	498
ILLINOIS.	2,846	1,262	2,673	1,198	2,628	1,177
MICHIGAN.	836	371	722	318	733	321
MINNESOTA.	5,084	2,306	5,718	2,592	5,904	2,683
IOWA.	(D)	(D)	(D)	(D)	(D)	(D)
MISSOURI.	4,058	1,837	3,900	1,767	3,882	1,978
NEBRASKA.	(D)	(D)	(D)	(D)	(D)	(D)
KANSAS.	6,238	2,826	5,436	2,475	6,650	2,964
SOUTH ATLANTIC.	3,148	1,381	3,201	1,408	2,841	1,220
EAST SOUTH CENTRAL.	2,554	1,111	2,415	1,053	2,674	1,101
TENNESSEE.	1,965	860	1,846	813	2,128	869
WEST SOUTH CENTRAL.	3,564	1,595	3,368	1,448	3,280	1,486
OKLAHOMA.	1,536	705	1,258	579	1,396	645
TEXAS.	1,477	646	1,378	611	1,421	638
MOUNTAIN.	2,928	1,338	2,797	1,243	2,676	1,214
MONTANA.	667	307	721	326	619	287
UTAH.	(D)	(D)	(D)	(D)	(D)	(D)
PACIFIC.	5,183	2,358	4,663	2,234	4,293	1,968
WASHINGTON.	1,677	753	1,303	591	1,150	517
OREGON.	785	364	738	337	721	330
CALIFORNIA AND HAWAII.	2,721	1,241	2,622	1,306	2,422	1,121

Note: Detail may not add to total due to independent rounding.

(D) Withheld to avoid disclosure of figures for individual companies.

Table 4. EXPORTS OF WHEAT AND WHEAT FLOUR

Country to which exported	December 1978	November 1978	12 months through December 1978
WHEAT FLOUR, EXCEPT MEAL AND GROATS, DONATED FOR RELIEF OR CHARITY (1314010 AND 1314030) (1,000 cwt.)			
Total.....	217	246	2,516
Egypt.....	83	-	379
Guatemala.....	-	7	24
Colombia.....	-	-	25
Ecuador.....	-	-	4
Brazil.....	-	-	5
Israel.....	10	19	123
India.....	17	-	133
Chile.....	15	43	178
Sri Lanka (Ceylon).....	-	22	95
Philippine Republic.....	42	101	483
Morocco.....	-	46	457
Other.....	50	8	610
WHEAT FLOUR, WHOLLY U.S. WHEAT, EXCEPT DURUM FLOUR AND SEMOLINA (1314040) (1,000 cwt.)			
Total.....	456	306	17,837
Nicaragua.....	-	-	41
Jamaica.....	62	34	552
Brazil.....	3	-	5
Iceland.....	6	7	45
Jordan.....	-	-	-
Saudi Arabia.....	232	116	817
Sri Lanka (Ceylon).....	-	13	3,076
Egypt.....	-	-	3,725
Philippine Republic.....	-	-	6,419
Korean Republic.....	-	-	-
Morocco.....	-	-	-
Other.....	153	136	3,259
WHEAT, INCLUDING SPELT OR MESLIN, UNMILLED, NOT DONATED FOR RELIEF OR CHARITY (1306540) (1,000 bu.)			
Total.....	90,027	92,314	1,226,992
U.S.S.R.....	4,029	2,677	107,486
Venezuela.....	3,010	22	27,935
Peru.....	942	9,803	16,216
Brazil.....	4,650	1,328	104,257
Portugal.....	1,693	2,846	20,537
Iran.....	908	1,422	44,306
Indonesia.....	890	3,899	19,696
Korean Republic.....	4,813	-	61,468
China (Taiwan).....	1,910	9,393	21,860
Japan.....	9,849	-	120,369
Egypt.....	706	3,616	41,001
Nigeria.....	2,410	56,368	31,271
Other.....	54,217	56,368	620,484

Note: Data in this table are taken from Foreign Trade publication FT-410, U.S. Exports. The Schedule B codes are shown above.

- Represents zero.

Table 5. PRODUCTION, EXPORTS, IMPORTS AND APPARENT CONSUMPTION OF WHEAT PRODUCTION: DECEMBER 1978

(Quantity in 1,000 cwt.; value in thousands of dollars)

Product	Manufacturers' shipments		Export of domestic merchandise ¹		Percent exports to manufacturers' shipments		Imports for consumption ²		Calculated import duty	Apparent consumption ⁴	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value ³		Quantity	Value
Wheat flour.....	21,942	(NA)	673	5,322	3.1	(NA)	-	-	-	21,269	(NA)

Note: Comparison of Standard Industrial Classification codes Schedule B Export numbers, and TSUSA import numbers is as follows:

Domestic output	Exports	Imports
20411	131.4010-131.4040	-

- Represents zero. (NA) Not available.

¹Source: Bureau of Census Report FT-410, U.S. Exports, Commodity by Country.

²Source: Bureau of the Census Report IM-146, Imports for Consumption.

³This dollar value represents the c.i.f. (cost, insurance, and freight) value at first port of entry in the United States plus U.S. import duties.

⁴Apparent consumption represents domestic production plus imports minus exports.

DESCRIPTION OF SURVEY

Scope of Survey—This survey covers firms engaged in the production of wheat and rye flour.

Sampling Description—The data shown in this publication were collected on Bureau of the Census monthly Form M20A, Flour Milling Products. The aggregates published in this report have been compiled from a sample of approximately 250 respondents, accounting for 98 percent of the total U.S. production of flour mill products. The universe for this sample was the 1958 Census of Manufactures. The reporting panel consists of mills with a daily capacity of over 400 sacks of flour. Approximately 200 small establishments are in the nonmail universe. Their production data are estimated based upon their 1958 Census of Manufactures report. The monthly reporting panel was selected by arraying the reporting units in descending order by size for each product line, then choosing a sufficient number of respondents (beginning with the largest) to yield a coverage of approximately 98 percent for each product line.

The data for 1977 and 1976 as shown in tables 1A and 1B of this report have been revised. Approximately six establishments were added to this survey in January 1978 based upon an extensive reconciliation with the 1976 Annual Survey of Manufactures (ASM). Data for 1976 and 1977 have been estimated for these plants based upon their 1976 ASM data and their 1978 M20A reports. Revised State data for 1976 and 1977 will be shown in a separate report to be issued in the next few weeks.

Survey Error—The figures for the current month include estimates for respondents in the reporting panel whose reports were not received in time for tabulation, as well as for 200 small respondents excluded from the mail panel. Missing figures for companies in the reporting panel are "imputed" from the month-to-month movements shown by reporting firms. The overall imputation rate is generally limited to 12 percent, including about 2 percent for small respondents excluded from the monthly reporting panel. Individual items with imputation rates greater than 12 percent are footnoted.

The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse, both because the actual monthly movements for nonrespondents may or may not closely agree with the imputed movements and because the estimates for nonpanel cases may or may not reflect their current activity. The probable difference between the actual and imputed figures is unknown. The degree of uncertainty regarding the accuracy of the data, however, increases as the percentage of imputation increases. Figures with imputation rates above 12 percent, particularly, should be used with caution.

Revision to Previous Period Data—Statistics for previous months may be revised due to receipt of corrected data from respondents, including late reports for which imputations were previously made as described above, and other corrections. Figures which have been revised by more than 5 percent from previously published figures are indicated by footnotes.

Reporting Period Adjustment—Since January 1975, the data have been adjusted for the number of working days in the reporting period in order to compensate for differences in individual company reporting patterns, i.e., calendar month, 4-week, 5-week periods.

Seasonal Adjustment—This report presents seasonally adjusted data in table 1A for selected series shown in table 1B. The data were seasonally adjusted using the X-11 variant of the Bureau of the Census Method II seasonal adjustment program. This seasonal adjustment program is a ratio-to-moving average method. The seasonal adjustment program largely eliminates the effect of seasonal variations (intra-year variations repeated constantly from year to year) within the series. The seasonally adjusted data usually provide a better measure than the not seasonally adjusted (original) data of the month-to-month variations which are due to factors other than seasonal pattern.

EXPLANATION OF TERMS

Units of Quantity—Grain ground is measured in bushels of 60 pounds for wheat, and 56 pounds for rye. Flour production is measured in sacks of 100 pounds.

Capacity—Based on replies to the question, "What is the maximum quantity of flour that can be produced in your mill in one day if operated for 24 hours?", the capacity of idle mills is included until the mills are reported to be destroyed, dismantled, or abandoned.

Grain—Represents the purchased weight of grain ground, including the weight of foreign material (dockage).

Millfeed—Includes bran, middlings, shorts, and other milling by products intended principally for use as feed materials.

Wheat Flour—Includes whole wheat flour, farina, industrial flour, and durum flour.

Stocks of Flour (quarterly)—Represents mill stocks in all positions, sold and unsold.

COMPARISON OF EXPORT, IMPORT, AND DOMESTIC OUTPUT DATA

The Standard Industrial Classification (SIC) system used for domestic output and the statistical export and import commodity classifications were developed independently and are based on somewhat differing systems of classification. This results in considerable difficulty in comparing the three types of data for many commodity areas. The domestic output classification is based on type of industry; whereas, the export and import classification system is more materials oriented. Aside from the differences in the basic commodity classifications, there are additional problems involving import data, since there are a substantial number of imported commodities, which are not produced in the United States or which are produced only in very small quantities and which, therefore, have no com-

parable domestic output classification. The relationships shown in this report should be considered only as approximations, since, in addition to those mentioned above, there are also the following problems affecting the comparability of the three sets of data:

(a) *Valuation*—There are different methods of valuation for the three types of data.

Domestic Output—Valued at the point of production. It includes the net sales price, f.o.b. plant, after discounts and allowances, exclusive of freight charges and excise taxes.

Exports—Valued at the point of exportation. It includes the selling price, or cost if not sold, and inland freight, insurance, and other charges to the export point.

Imports—Valued at the first port of entry in the United States. It includes c. i. f. (cost, insurance, and freight), duty, and other charges to the import point.

(b) *Duplication in Quantity and Value of Output*—Because producers' shipments of some commodities may be used as materials for incorporation into other commodities, combinations of data for such commodities may contain a certain amount of duplication. Thus, percentages of exports to output or imports to apparent consumption (output plus imports minus exports) at four-digit or broader levels may be understated. Where duplication is known to be substantial, the output data are appropriately noted in the table.

(c) *Low-Valued Export and Import Transactions*—Commodity information is not shown for individual imports valued under \$251. For exports, commodity information is not reported for shipments individually valued under \$251 effective October 1969 and for shipments valued under \$100 prior to October 1969. This is believed to have only negligible effect on the statistics for most commodities.

(d) *Manufacturers' Shipments, Not Specified by Kind*—The value of manufacturers' shipments at the four-digit industry level often includes a small amount which is not distributed among the individual five-digit product classes. Export and import percentages at the more detailed levels might, therefore, be slightly overstated.

(e) *Time Lag Between Output and Exports*—There will be a lag between the time a commodity is produced or shipped by the producer and the time it is actually exported, especially when intermediaries (wholesalers, exporters, etc.) are involved. Ordinarily, this type of discrepancy is insignificant in annual figures.

(f) *"Direct" vs "Total" Commodity Export and Imports*—Export and import data do not include materials which are

incorporated into other more finished products and exported or imported in finished form. Thus, by showing only direct exports and imports, the relation of exports to output and imports to apparent consumption for intermediate products is considerably understated.

(g) *Used Commodities*—With a few exceptions, used or rebuilt commodities are classified in the same import or export codes as is new merchandise. Percentages are thus overstated to the extent that used or rebuilt products are significant in trade.

RELATED REPORTS

An annual Current Industrial Report is published in this series. The annual report summarizes monthly figures and incorporates all known revisions in the series for both current and previous year, thus, providing a single reference copy to replace the monthly publications. This annual summary provides additional information on the history of this survey.

The Bureau of the Census also publishes reports on related products as follows:

Series	Frequency	Title
<i>Current Industrial Reports</i>		
M3-1	Monthly	Manufacturers' Shipments, Inventories, and Orders
M20C	Monthly	Confectionery, Including Chocolate Products
<i>Foreign Trade Reports</i>		
FT-410	Monthly	U.S. Exports—Schedule B—Commodity by Country
FT-135	Monthly	U.S. General Imports—Schedule A—Commodity by Country

CONTACTS FOR DATA USERS

Subject Area	Contact	Phone Number
Current Industrial Report M20A	Geraldine Bynum	(301) 763-7807
Foreign Trade publications	Juanita Noone	(301) 763-5140
To order a Census Bureau publication	Daisy Williams	(301) 763-7472
To order Census Bureau microfiche	Dorothy Dunham	(301) 763-5511

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Flour Milling Products



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FEBRUARY 1979

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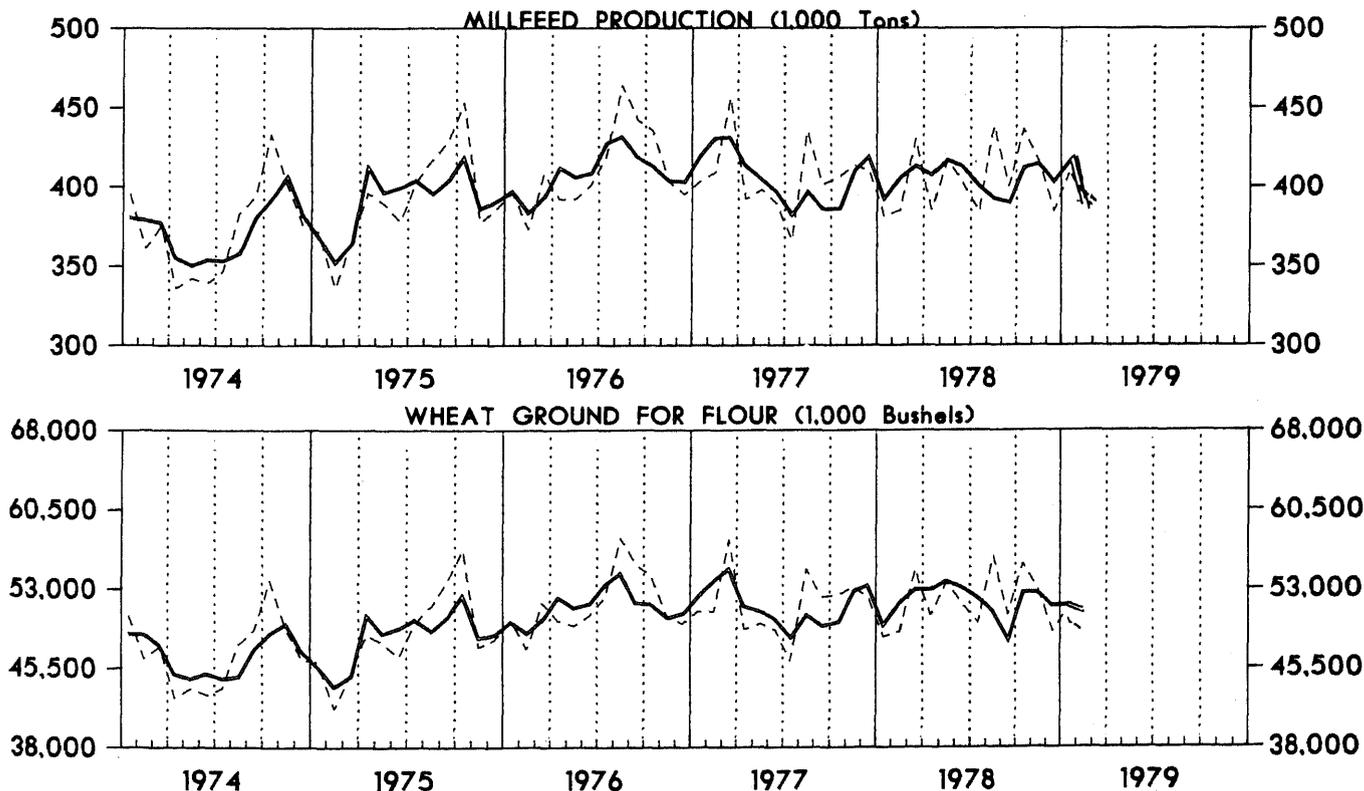
The statistics in this publication are based on a survey of manufacturers and represent total U.S. production of flour milling products. Estimates are included for companies whose

reports were not received in time for tabulation. A more complete description of this survey appears on page 6.

THIS REPORT INCLUDES DATA COMPARING DOMESTIC OUTPUT, EXPORTS, AND IMPORTS

WHEAT FLOUR MILLING: 1974 TO 1979

— Seasonally Adjusted
- - - Not Seasonally Adjusted



Address inquiries concerning these figures to U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233, or call Geraldine Bynum, (301) 763-7807.

For sale by the Subscriber Services Section (Publications), Bureau of the Census, Washington, D.C. 20233, or any U.S. Department of Commerce district office. Postage stamps not acceptable; currency submitted at sender's risk. Remittances from foreign countries must be by international money order or by a draft on a U.S. bank. Price 25 cents per copy, \$3.30 per year.

Table 1A. SUMMARY OF WHEAT FLOUR MILLING, SEASONALLY ADJUSTED: 1977 TO 1979

Month and year	Wheat flour production average per working day ¹ (1,000 cwt.)	Millfeed production (1,000 tons)	Wheat ground for flour (1,000 bushels)
1979			
February.....	1,084	396	51,037
January.....	1,080	412	51,348
1978			
December.....	1,086	404	51,457
November.....	1,093	415	52,728
October.....	1,084	412	52,742
September.....	1,040	390	46,147
August.....	1,087	393	50,886
July.....	1,124	401	52,176
June.....	1,124	413	53,196
May.....	1,111	417	53,821
April.....	1,108	408	53,000
March.....	1,122	413	53,010
February.....	1,096	406	51,788
January.....	1,065	393	49,714
1977			
December.....	1,072	419	53,399
November.....	1,089	410	52,846
October.....	1,028	386	49,905
September.....	1,075	386	49,609
August.....	1,060	397	50,659
July.....	1,044	383	48,499
June.....	1,044	397	50,196
May.....	1,061	405	50,954
April.....	1,058	413	51,443
March.....	1,180	431	54,965
February.....	1,145	431	53,775

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Thanksgiving Day, and December 25. Revised.

Table 1B. SUMMARY OF WHEAT FLOUR MILLING, NOT SEASONALLY ADJUSTED: 1977 TO 1979

(Not seasonally adjusted)

Month and year	Wheat flour production (1,000 cwt.)		Millfeed production (tons)	Wheat ground for flour (1,000 bushels)	Wheat flour mill stocks ² (1,000 cwt.)	Daily 24-hour capacity in wheat flour ² (1,000 cwt.)	Wheat flour produced as percent of capacity	Flour extraction rate ³ (percent)
	Average per working day ¹	Calendar month total						
1979								
February.....	1,077	21,558	374,701	48,128	(NA)	1,049	102.8	74.7
January.....	1,037	22,817	403,584	50,886	(NA)	1,049	98.9	74.7
1978								
December.....	1,097	21,942	384,618	48,913	3,214	1,049	104.6	74.8
November.....	1,130	23,738	416,152	52,934	(NA)	1,057	106.9	74.7
October.....	1,129	24,843	436,433	55,348	(NA)	1,057	106.8	74.6
September.....	1,119	22,395	400,263	50,531	3,342	1,057	105.9	73.9
August.....	1,089	25,053	438,773	56,062	(NA)	1,036	105.1	74.4
July.....	1,117	22,335	384,090	49,749	(NA)	1,036	100.1	74.8
June.....	1,047	23,051	401,878	51,544	3,459	1,036	101.1	74.5
May.....	1,094	24,078	417,032	53,601	(NA)	1,034	105.8	74.5
April.....	1,127	22,554	385,227	50,478	(NA)	1,034	109.1	74.5
March.....	1,057	24,330	430,260	54,821	4,096	1,034	102.3	73.8
February.....	1,086	21,738	385,269	48,910	(NA)	1,072	101.4	74.2
January.....	1,037	21,787	380,717	48,430	(NA)	1,072	92.4	74.9
1977								
December.....	1,062	23,363	410,169	52,106	4,160	1,072	99.1	74.7
November.....	1,133	23,785	412,818	53,159	(NA)	1,104	102.6	74.6
October.....	1,114	23,396	406,255	52,352	(NA)	1,104	100.9	74.5
September.....	1,113	23,381	401,384	52,244	3,782	1,104	100.8	74.6
August.....	1,062	24,419	435,359	54,844	(NA)	1,098	96.7	74.2
July.....	1,028	20,566	365,665	46,149	(NA)	1,098	93.7	74.3
June.....	990	21,769	388,922	49,072	4,456	1,098	90.1	73.9
May.....	1,053	22,121	398,051	49,688	(NA)	1,114	94.6	74.2
April.....	1,042	21,877	392,101	49,184	(NA)	1,114	93.5	74.1
March.....	1,121	25,787	456,406	57,635	4,542	1,114	100.6	74.6
February.....	1,136	22,716	408,870	50,840	(NA)	1,041	109.1	74.5

(NA) Not available. ^RRevised.

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Labor day, Thanksgiving Day, and December 25. ²Collected quarterly. ³Wheat flour production as compared with amount of wheat ground.

TABLE 2. QUANTITY OF DURUM WHEAT AND RYE FLOUR PRODUCTION, GRAIN CONSUMPTION
MILL STOCKS, AND CAPACITY

PRODUCT CODE	DESCRIPTION OF ITEM	UNIT OF MEASURE	FEBRUARY 1979	JANUARY 1979	FEBRUARY 1978
	DURUM WHEAT (INCLUDED IN TABLE 1 DATA):				
0011173	DURUM WHEAT GROUND.	M BU	3,152	3,012	3,285
2041153	STRAIGHT SEMOLINA DURUM FLOUR.	M CWT	1,445	1,349	1,460
2041155	BLENDED SEMOLINA DURUM FLOUR.	DO	(D)	(D)	(D)
	RYE:				
0011951	RYE GROUND FOR FLOUR.	M BU	274	325	298
2041611	RYE FLOUR PRODUCTION.	M CWT	115	134	131
2041618	RYE MILLFEED PRODUCTION.	TONS	1,652	1,937	1,674
2041611	RYE FLOUR STOCKS (1).	M CWT	(NA)	(NA)	(NA)
	24 HOUR CAPACITY (1).	DO	10	10	14

Note: Data include estimates for small mills. Detail may not add to total due to independent rounding. These data exclude all flour blended by macaroni and spaghetti manufacturers, etc., as such activities are not within scope of this survey. Only mills engaged in milling flour or meal are included in this survey.

(D) Withheld to avoid disclosure of figures for individual companies. (NA) Not available.

¹Collected quarterly.

TABLE 3. QUANTITY OF WHEAT GROUND FOR FLOUR AND WHEAT FLOUR PRODUCTION, BY DIVISION AND STATES
(WHEAT GROUND FOR FLOUR IN THOUSANDS OF BUSHELS; WHEAT PRODUCTION IN THOUSANDS OF HUNDREDWEIGHT)

GEOGRAPHIC AREA	FEBRUARY 1979		JANUARY 1979		FEBRUARY 1978	
	WHEAT GROUND FOR FLOUR	WHEAT FLOUR PRODUCTION	WHEAT GROUND FOR FLOUR	WHEAT FLOUR PRODUCTION	WHEAT GROUND FOR FLOUR	WHEAT FLOUR PRODUCTION
UNITED STATES, TOTAL.	48,128	21,558	50,886	22,817	48,910	21,783
MIDDLE ATLANTIC.	6,891	3,136	7,149	3,229	6,573	2,916
NEW YORK.	5,524	2,498	5,845	2,644	5,155	2,284
NORTH CENTRAL.	24,613	11,068	26,375	11,809	26,825	12,003
OHIO.	2,587	1,126	2,963	1,289	2,611	1,133
INDIANA.	1,340	562	1,425	613	1,092	473
ILLINOIS.	2,787	1,237	2,846	1,262	3,011	1,330
MICHIGAN.	745	327	836	371	840	357
MINNESOTA.	5,032	2,270	5,084	2,306	5,391	2,346
IOWA.	(D)	(D)	(D)	(D)	(D)	(D)
MISSOURI.	3,644	1,691	4,058	1,837	4,321	1,934
NEBRASKA.	(D)	(D)	(D)	(D)	(D)	(D)
KANSAS.	5,521	2,492	6,238	2,826	6,223	2,939
SOUTH ATLANTIC.	3,340	1,466	3,147	1,381	3,243	1,438
EAST SOUTH CENTRAL.	2,486	1,081	2,554	1,111	2,420	1,024
TENNESSEE.	1,906	834	1,965	860	1,876	796
WEST SOUTH CENTRAL.	3,260	1,462	3,550	1,591	3,406	1,458
OKLAHOMA.	1,271	585	1,536	705	1,383	634
TEXAS.	1,414	624	1,463	642	1,566	647
MOUNTAIN.	2,552	1,165	2,928	1,338	2,543	1,175
MONTANA.	661	302	667	307	621	319
UTAH.	(D)	(D)	(D)	(D)	(D)	(D)
PACIFIC.	4,986	2,180	5,183	2,358	3,900	1,769
WASHINGTON.	1,361	615	1,677	753	1,070	481
OREGON.	835	327	785	364	634	291
CALIFORNIA AND HAWAII.	2,790	1,238	2,721	1,241	2,196	997

Note: Detail may not add to total due to independent rounding.

(D) Withheld to avoid disclosure of figures for individual companies.

Table 4. EXPORTS OF WHEAT AND WHEAT FLOUR

Country to which exported	January 1979	December 1978	1 month through January 1979
WHEAT FLOUR, EXCEPT MEAL AND GROATS, DONATED FOR RELIEF OR CHARITY (1314010 AND 1314030) (1,000 cwt.)			
Total.....	199	217	199
Egypt.....	81	83	81
Guatemala.....	-	-	-
Colombia.....	-	-	-
Ecuador.....	-	-	-
Brazil.....	-	-	-
Israel.....	-	10	-
India.....	6	17	6
Chile.....	11	15	11
Sri Lanka (Ceylon).....	26	-	26
Philippine Republic.....	-	42	-
Morocco.....	-	-	-
Other.....	75	50	75
WHEAT FLOUR, WHOLLY U.S. WHEAT, EXCEPT DURUM FLOUR AND SEMOLINA (1314040) (1,000 cwt.)			
Total.....	300	456	300
Nicaragua.....	-	-	-
Jamaica.....	49	62	49
Brazil.....	-	3	-
Iceland.....	3	6	3
Jordan.....	-	-	-
Saudi Arabia.....	109	232	109
Sri Lanka (Ceylon).....	-	-	-
Egypt.....	-	-	-
Philippine Republic.....	-	-	-
Korean Republic.....	-	-	-
Morocco.....	-	-	-
Other.....	139	153	139
WHEAT, INCLUDING SPELT OR MESLIN, UNMILLED, NOT DONATED FOR RELIEF OR CHARITY (1306540) (1,000 bu.)			
Total.....	70,400	90,027	70,400
U.S.S.R.....	4,038	4,029	4,038
Venezuela.....	1,911	3,010	1,911
Peru.....	-	942	-
Brazil.....	2,894	4,650	2,894
Portugal.....	-	1,693	-
Iran.....	3,582	908	3,582
Indonesia.....	1,382	890	1,382
Korean Republic.....	4,717	4,813	4,717
China (Taiwan).....	3,063	1,910	3,063
Japan.....	12,112	9,849	12,112
Egypt.....	6,663	706	6,663
Nigeria.....	2,067	2,410	2,067
Other.....	27,971	54,217	27,971

Note: Data in this table are taken from Foreign Trade publication FT-140, U.S. Exports. The Schedule B codes are shown above.
- Represents zero.

Table 5. PRODUCTION, EXPORTS, IMPORTS AND APPARENT CONSUMPTION OF WHEAT PRODUCTION: JANUARY 1979

(Quantity in 1,000 cwt.; value in thousands of dollars)

Product	Manufacturers' shipments		Export of domestic merchandise ¹		Percent exports to manufacturers' shipments		Imports for consumption ²		Calculated import duty	Apparent consumption ⁴	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value ³		Quantity	Value
Wheat flour.....	22,817	(NA)	499	3,323	2.1	(NA)	-	-	-	22,318	(NA)

Note: Comparison of Standard Industrial Classification codes, Schedule B export numbers, and TSUSA import numbers is as follows:

Domestic output	Exports	Imports
20411	131.4010-131.4040	-

- Represents zero. (NA) Not available.

¹Source: Bureau of the Census Report FT-410, U.S. Exports, Commodity by Country.

²Source: Bureau of the Census Report IM-146, Imports for Consumption.

³This dollar value represents the c.i.f. (cost, insurance, and freight) value at first port of entry in the United States plus U.S. import duties.

⁴Apparent consumption represents domestic production plus imports minus exports.

DESCRIPTION OF SURVEY

Scope of Survey—This survey covers firms engaged in the production of wheat and rye flour.

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RELATED REPORTS

An annual Current Industrial Report is published in this series. The annual report summarizes monthly figures and incorporates all known revisions in the series for both current and previous year, thus, providing a single reference copy to replace the monthly publications. This annual summary provides additional information on the history of this survey.

The Bureau of the Census also publishes reports on related products as follows:

Series	Frequency	Title
<i>Current Industrial Reports</i>		
M3-1	Monthly	Manufacturers' Shipments, Inventories, and Orders
M20C	Monthly	Confectionery, Including Chocolate Products
<i>Foreign Trade Reports</i>		
FT-410	Monthly	U.S. Exports--Schedule B--Commodity by Country
FT-135	Monthly	U.S. General Imports--Schedule A--Commodity by Country

CONTACTS FOR DATA USERS

Subject Area	Contact	Phone Number
Current Industrial Report M20A	Geraldine Bynum	(301) 763-7807
Foreign Trade publications	Juanita Noone	(301) 763-5140
To order a Census Bureau publication	Daisy Williams	(301) 763-7472
To order Census Bureau microfiche	Dorothy Dunham	(301) 763-5511

Flour Milling Products



U.S. Department of Commerce
BUREAU OF THE CENSUS

MARCH 1979

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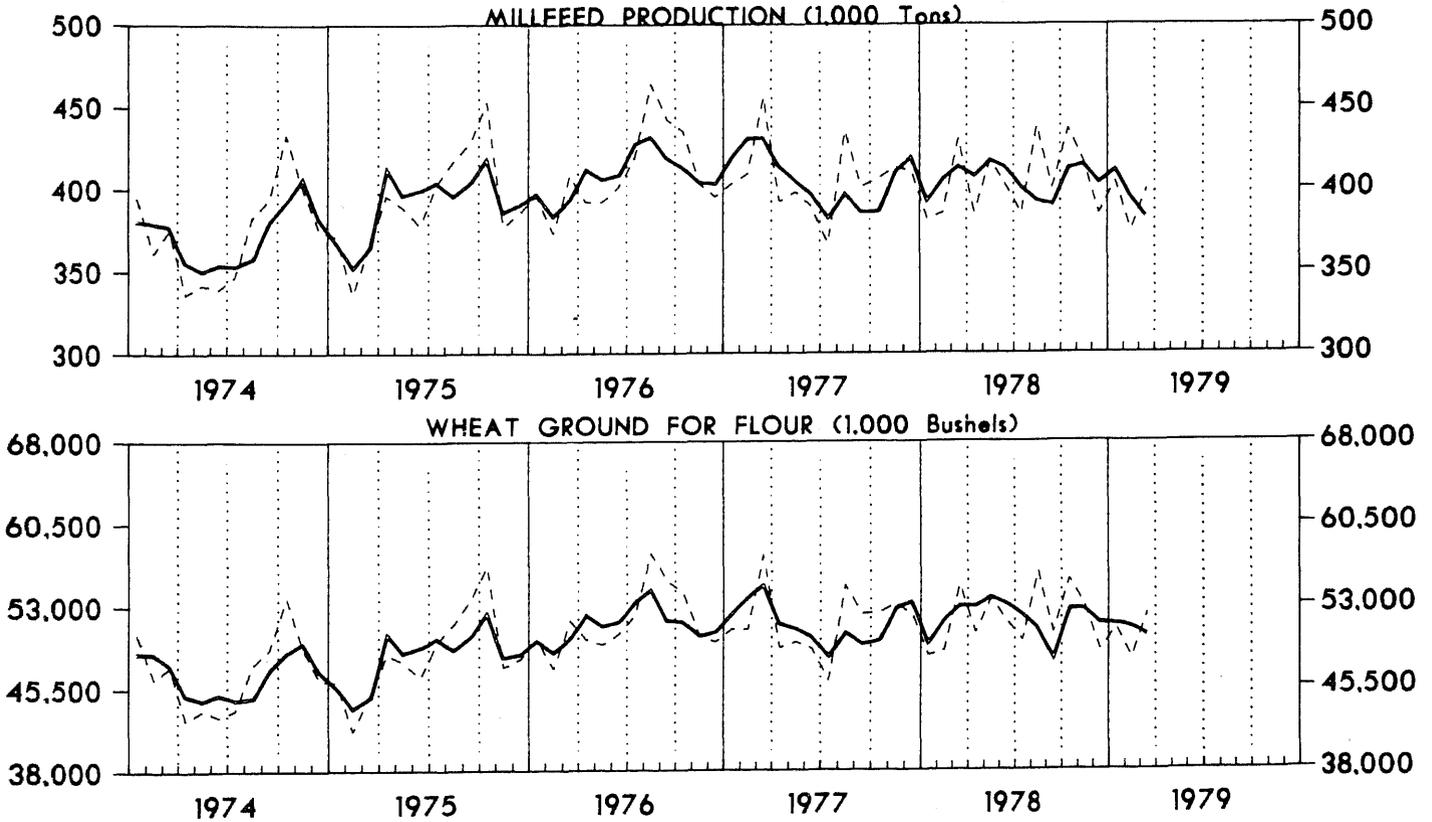
The statistics in this publication are based on a survey of manufacturers and represent total U.S. production of flour milling products. Estimates are included for companies whose

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THIS REPORT INCLUDES DATA COMPARING DOMESTIC OUTPUT, EXPORTS, AND IMPORTS

WHEAT FLOUR MILLING: 1974 TO 1979

———— Seasonally Adjusted
- - - - - Not Seasonally Adjusted



Address inquiries concerning these figures to U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233, or call Geraldine Bynum, (301) 763-7807.

For sale by the Subscriber Services Section (Publications), Bureau of the Census, Washington, D.C. 20233, or any U.S. Department of Commerce district office. Postage stamps not acceptable; currency submitted at sender's risk. Remittances from foreign countries must be by international money order or by a draft on a U.S. bank. Price 25 cents per copy, \$3.30 per year.

Table 1A. SUMMARY OF WHEAT FLOUR MILLING, SEASONALLY ADJUSTED: 1977 TO 1979

Month and year	Wheat flour production average per working day ¹ (1,000 cwt.)	Millfeed production (1,000 tons)	Wheat ground for flour (1,000 bushels)
1979			
March.....	1,089	383	50,327
February.....	1,084	395	51,051
January.....	1,080	412	51,348
1978			
December.....	1,086	404	51,457
November.....	1,093	415	52,728
October.....	1,084	412	52,742
September.....	1,043	390	46,147
August.....	1,087	393	50,886
July.....	^r 1,124	401	52,176
June.....	1,124	413	53,196
May.....	1,111	417	53,821
April.....	1,108	408	53,000
March.....	1,122	413	53,010
February.....	1,096	406	51,788
January.....	^r 1,065	393	49,714
1977			
December.....	1,072	419	53,399
November.....	1,089	410	52,846
October.....	1,028	386	49,905
September.....	1,075	386	49,609
August.....	1,060	397	50,659
July.....	1,044	383	48,499
June.....	1,044	397	50,196
May.....	1,061	405	50,954
April.....	1,058	413	51,443

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Thanksgiving Day, and December 25. ^rRevised.

Table 1B. SUMMARY OF WHEAT FLOUR MILLING, NOT SEASONALLY ADJUSTED: 1977 TO 1979

Month and year	Wheat flour production (1,000 cwt.)		Millfeed production (tons)	Wheat ground for flour (1,000 bushels)	Wheat flour mill stocks ² (1,000 cwt.)	Daily 24-hour capacity in wheat flour ² (1,000 cwt.)	Wheat flour produced as percent of capacity	Flour extraction rate ³ (percent)
	Average per working day ¹	Calendar month total						
1979								
March.....	1,061	23,351	399,399	52,200	3,477	1,048	101.3	74.6
February.....	1,077	21,542	373,702	48,163	(NA)	1,049	102.7	74.5
January.....	1,037	22,817	403,584	50,886	(NA)	1,049	98.9	74.7
1978								
December.....	1,097	21,942	384,942	48,913	3,214	1,049	104.6	74.8
November.....	1,130	23,738	416,152	52,934	(NA)	1,057	106.9	74.7
October.....	1,129	24,843	436,433	55,348	(NA)	1,057	106.8	74.6
September.....	^r 1,123	^r 22,456	400,263	^r 50,531	3,342	1,057	105.9	73.9
August.....	1,089	25,053	438,773	56,062	(NA)	1,036	105.1	74.4
July.....	1,117	22,335	384,090	49,749	(NA)	1,036	100.1	74.8
June.....	1,047	23,051	401,878	51,544	3,459	1,036	101.1	74.5
May.....	1,094	24,078	417,032	53,601	(NA)	1,034	105.8	74.5
April.....	1,127	22,554	385,227	50,478	(NA)	1,034	109.1	74.5
March.....	1,057	24,330	430,260	54,821	4,096	1,034	102.3	73.8
February.....	1,086	21,738	385,269	48,910	(NA)	1,072	101.4	74.2
January.....	1,037	21,787	380,717	48,430	(NA)	1,072	92.4	74.9
1977								
December.....	1,062	23,363	410,169	52,106	4,160	1,072	99.1	74.7
November.....	1,133	23,785	412,818	53,159	(NA)	1,104	102.6	74.6
October.....	1,114	23,396	406,255	52,352	(NA)	1,104	100.9	74.5
September.....	1,113	23,381	401,384	52,244	3,782	1,104	100.8	74.6
August.....	1,062	24,419	435,359	54,844	(NA)	1,098	96.7	74.2
July.....	1,028	20,566	365,665	46,149	(NA)	1,098	93.7	74.3
June.....	990	21,769	388,922	49,072	4,456	1,098	90.1	73.9
May.....	1,053	22,121	398,051	49,688	(NA)	1,114	94.6	74.2
April.....	1,042	21,877	392,101	49,184	(NA)	1,114	93.5	74.1

(NA) Not available. ^rRevised.

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Labor day, Thanksgiving Day, and December 25. ²Collected quarterly. ³Wheat flour production as compared with amount of wheat ground.

TABLE 2. QUANTITY OF DURUM WHEAT AND RYE FLOUR PRODUCTION, GRAIN CONSUMPTION
MILL STOCKS, AND CAPACITY

PRODUCT CODE	DESCRIPTION OF ITEM	UNIT OF MEASURE	MARCH 1979	FEBRUARY 1979	MARCH 1978
	DURUM WHEAT (INCLUDED IN TABLE 1 DATA):				
0011173	DURUM WHEAT GROUND	M BU	3,820	3,201	3,326
2041153	STRAIGHT SEMOLINA DURUM FLOUR	M CWT	1,744	1,469	1,476
2041155	BLENDED SEMOLINA DURUM FLOUR	DO	(D)	(D)	(D)
	RYE:				
0011951	RYE GROUND FOR FLOUR	M BU	340	274	291
2041611	RYE FLOUR PRODUCTION	M CWT	147	115	128
2041618	RYE MILLFEED PRODUCTION	TONS	1,958	1,652	1,543
2041611	RYE FLOUR STOCKS (1)	M CWT	21	(NA)	30
	24 HOUR CAPACITY (1)	DO	10	10	16

Note: Data include estimates for small mills. Detail may not add to total due to independent rounding. These data exclude all flour blended by macaroni and spaghetti manufacturers, etc., as such activities are not within scope of this survey. Only mills engaged in milling flour or meal are included in this survey.

(D) Withheld to avoid disclosure of figures for individual companies. (NA) Not available.

¹Collected quarterly.

TABLE 3. QUANTITY OF WHEAT GROUND FOR FLOUR AND WHEAT FLOUR PRODUCTION, BY DIVISION AND STATES
(WHEAT GROUND FOR FLOUR IN THOUSANDS OF BUSHEL; WHEAT PRODUCTION IN THOUSANDS OF HUNDREDWEIGHT)

GEOGRAPHIC AREA	MARCH 1979		FEBRUARY 1979		MARCH 1978	
	WHEAT GROUND FOR FLOUR	WHEAT FLOUR PRODUCTION	WHEAT GROUND FOR FLOUR	WHEAT FLOUR PRODUCTION	WHEAT GROUND FOR FLOUR	WHEAT FLOUR PRODUCTION
UNITED STATES, TOTAL	52,200	23,351	48,163	21,542	54,821	24,330
MIDDLE ATLANTIC	7,060	3,169	6,894	3,137	6,895	2,841
NEW YORK	5,793	2,611	5,527	2,499	5,417	2,451
NORTH CENTRAL	27,063	12,121	24,609	11,067	29,741	13,330
OHIO	3,152	1,387	2,587	1,126	3,000	1,325
INDIANA	1,300	562	1,340	562	1,323	570
ILLINOIS	2,983	1,322	2,787	1,237	3,165	1,414
MICHIGAN	935	412	741	326	971	406
MINNESOTA	5,526	2,500	5,032	2,270	6,168	2,808
IOWA	(D)	(D)	(D)	(D)	(D)	(D)
MISSOURI	3,860	1,735	3,644	1,691	5,069	2,346
NEBRASKA	(D)	(D)	(D)	(D)	(D)	(D)
KANSAS	6,061	2,750	5,521	2,492	6,711	2,955
SOUTH ATLANTIC	3,370	1,477	3,340	1,466	3,477	1,525
EAST SOUTH CENTRAL	2,775	1,307	2,486	1,081	2,835	1,244
TENNESSEE	2,113	1,020	1,906	834	2,252	990
WEST SOUTH CENTRAL	3,454	1,552	3,334	1,497	3,837	1,719
OKLAHOMA	1,352	662	1,271	585	1,606	733
TEXAS	1,507	668	1,488	659	1,668	737
MOUNTAIN	2,921	1,337	2,552	1,165	3,070	1,399
MONTANA	682	309	661	302	721	341
UTAH	(D)	(D)	(D)	(D)	(D)	(D)
PACIFIC	5,557	2,388	4,948	2,129	4,966	2,272
WASHINGTON	1,498	681	1,361	615	1,407	634
OREGON	939	353	813	302	798	358
CALIFORNIA AND HAWAII	3,120	1,354	2,774	1,212	2,761	1,280

Note: Detail may not add to total due to independent rounding.

(D) Withheld to avoid disclosure of figures for individual companies.

Table 4. EXPORTS OF WHEAT AND WHEAT FLOUR

Country to which exported	February 1979	January 1978	2 months through February 1979
WHEAT FLOUR, EXCEPT MEAL AND GROATS, DONATED FOR RELIEF OR CHARITY (1314010 AND 1314030) (1,000 cwt.)			
Total.....	170	199	369
Egypt.....	98	81	179
Guatemala.....	3	-	3
Colombia.....	-	-	-
Ecuador.....	-	-	-
Brazil.....	-	-	-
Israel.....	-	-	-
India.....	3	6	9
Chile.....	25	11	36
Sri Lanka (Ceylon).....	-	26	26
Philippine Republic.....	-	-	-
Morocco.....	-	-	-
Other.....	41	75	116
WHEAT FLOUR, WHOLLY U.S. WHEAT, EXCEPT DURUM FLOUR AND SEMOLINA (1314040) (1,000 cwt.)			
Total.....	1,105	300	1,405
Nicaragua.....	-	-	-
Jamaica.....	47	49	96
Brazil.....	-	-	-
Iceland.....	-	3	3
Jordan.....	-	-	-
Saudi Arabia.....	219	109	328
Sri Lanka (Ceylon).....	-	-	-
Egypt.....	816	-	816
Philippine Republic.....	-	-	-
Korean Republic.....	-	-	-
Morocco.....	-	-	-
Other.....	23	139	162
WHEAT, INCLUDING SPELT OR MESLIN, UNMILLED, NOT DONATED FOR RELIEF OR CHARITY (1306540) (1,000 bu.)			
Total.....	67,105	70,400	137,505
U.S.S.R.....	10,316	4,038	14,354
Venezuela.....	38	1,911	1,949
Peru.....	103	-	103
Brazil.....	4,998	2,894	7,892
Portugal.....	2,266	-	2,266
Iran.....	870	3,582	4,452
Indonesia.....	513	1,382	1,895
Korean Republic.....	4,883	4,717	9,600
China (Taiwan).....	1,010	3,063	4,073
Japan.....	12,117	12,112	24,229
Egypt.....	3,620	6,663	10,283
Nigeria.....	2,633	2,067	4,700
Other.....	23,738	27,971	51,709

Note: Data in this table are taken from Foreign Trade publication FT-140, U.S. Exports. The Schedule B codes are shown above.
- Represents zero.

Table 5. PRODUCTION, EXPORTS, IMPORTS AND APPARENT CONSUMPTION OF WHEAT PRODUCTION: FEBRUARY 1979

(Quantity in 1,000 cwt.; value in thousands of dollars)

Product	Manufacturers' shipments		Export of domestic merchandise ¹		Percent exports to manufacturers' shipments		Imports for consumption ²		Calculated import duty	Apparent consumption ⁴	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value ³		Quantity	Value
Wheat flour.....	21,542	(NA)	1,275	12,539	5.9	(NA)	-	-	-	20,267	(NA)

Note: Comparison of Standard Industrial Classification codes, Schedule B export numbers, and TSUSA import numbers is as follows:

Domestic output	Exports	Imports
20411	131.4010-131.4040	-

- Represents zero. (NA) Not available.

¹Source: Bureau of the Census Report FT-410, U.S. Exports, Commodity by Country.

²Source: Bureau of the Census Report IM-146, Imports for Consumption.

³This dollar value represents the c.i.f. (cost, insurance, and freight) value at first port of entry in the United States plus U.S. import duties.

⁴Apparent consumption represents domestic production plus imports minus exports.

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CONTACTS FOR DATA USERS

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Flour Milling Products



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APRIL 1979

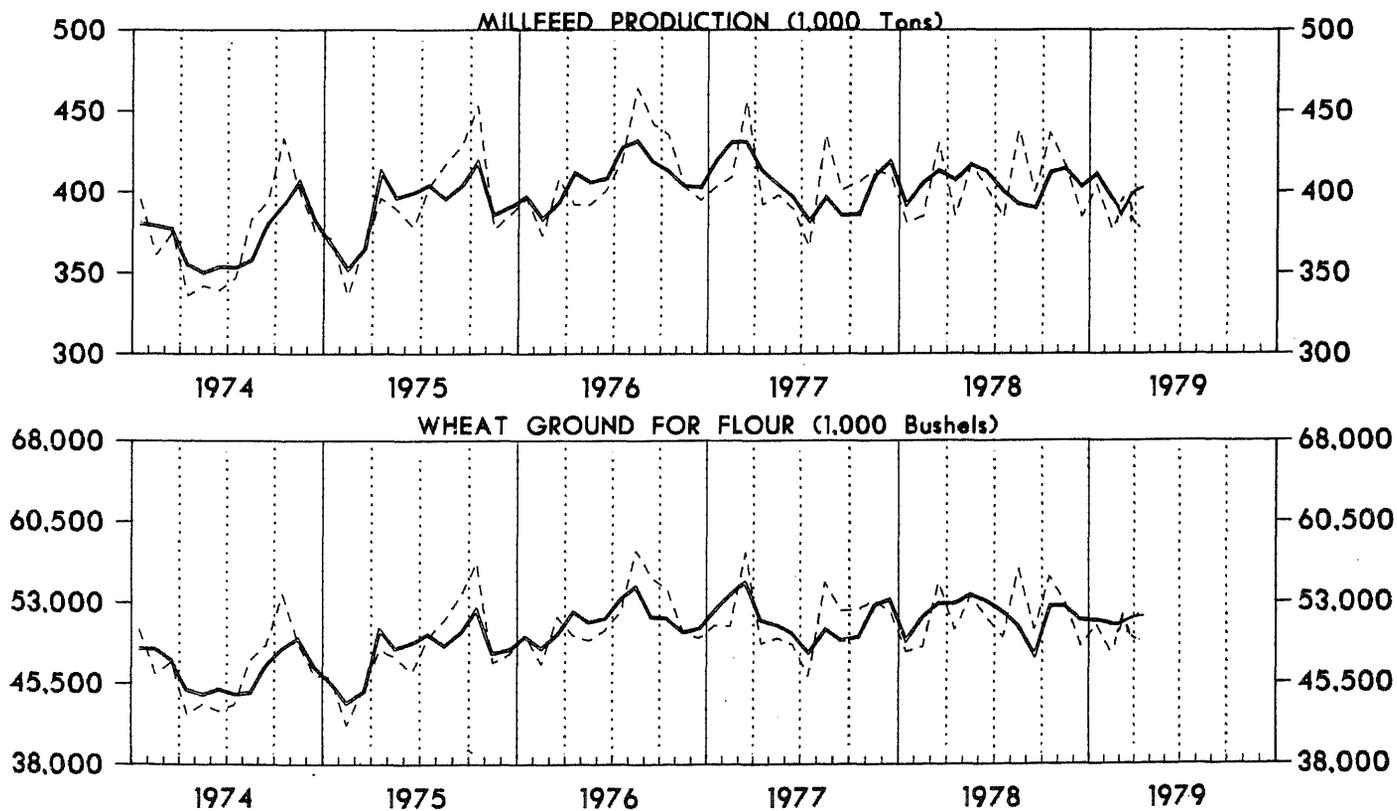
M20A(79)-4
Issued June 1979

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THIS REPORT INCLUDES DATA COMPARING DOMESTIC OUTPUT, EXPORTS, AND IMPORTS

WHEAT FLOUR MILLING: 1974 TO 1979



Address inquiries concerning these figures to U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233, or call Geraldine Bynum, (301) 763-7807.

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Table 1A. SUMMARY OF WHEAT FLOUR MILLING, SEASONALLY ADJUSTED: 1977 TO 1979

Month and year	Wheat flour production average per working day ¹ (1,000 cwt.)	Millfeed production (1,000 tons)	Wheat ground for flour (1,000 bushels)
1979			
April.....	1,082	408	52,531
March.....	1,095	385	50,453
February.....	1,084	395	51,051
January.....	1,080	412	51,348
1978			
December.....	1,086	404	51,457
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¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Thanksgiving Day, and December 25. ^rRevised.

Table 1B. SUMMARY OF WHEAT FLOUR MILLING, NOT SEASONALLY ADJUSTED: 1977 TO 1979

Month and year	Wheat flour production (1,000 cwt.)		Millfeed production (tons)	Wheat ground for flour (1,000 bushels)	Wheat flour mill stocks ² (1,000 cwt.)	Daily 24-hour capacity in wheat flour ² (1,000 cwt.)	Wheat flour produced as percent of capacity	Flour extraction rate ³ (percent)
	Average per working day ¹	Calendar month total						
1979								
April.....	1,059	22,248	382,273	50,034	(NA)	1,048	102.1	74.1
March.....	1,066	23,454	401,433	52,454	3,477	1,048	106.6	74.5
February.....	1,077	21,542	373,702	48,163	(NA)	1,049	102.7	74.5
January.....	1,037	22,817	403,584	50,886	(NA)	1,049	98.9	74.7
1978								
December.....	1,097	21,942	384,942	48,913	3,214	1,049	104.6	74.8
November.....	1,130	23,738	416,152	52,934	(NA)	1,057	106.9	74.7
October.....	1,129	24,843	436,433	55,348	(NA)	1,057	106.8	74.6
September.....	1,123	22,456	400,263	50,531	3,342	1,057	105.9	73.9
August.....	1,089	25,053	438,773	56,062	(NA)	1,036	105.1	74.4
July.....	1,117	22,335	384,090	49,749	(NA)	1,036	100.1	74.8
June.....	1,047	23,051	401,878	51,544	3,459	1,036	101.1	74.5
May.....	1,094	24,078	417,032	53,601	(NA)	1,034	105.8	74.5
April.....	1,127	22,554	385,227	50,478	(NA)	1,034	109.1	74.5
March.....	1,057	24,330	430,260	54,821	4,096	1,034	102.3	73.8
February.....	1,086	21,738	385,269	48,910	(NA)	1,072	101.4	74.2
January.....	1,037	21,787	380,717	48,430	(NA)	1,072	92.4	74.9
1977								
December.....	1,062	23,363	410,169	52,106	4,160	1,072	99.1	74.7
November.....	1,133	23,785	412,818	53,159	(NA)	1,104	102.6	74.6
October.....	1,114	23,396	406,255	52,352	(NA)	1,104	100.9	74.5
September.....	1,113	23,381	401,384	52,244	3,782	1,104	100.8	74.6
August.....	1,062	24,419	435,359	54,844	(NA)	1,098	96.7	74.2
July.....	1,028	20,566	365,665	46,149	(NA)	1,098	93.7	74.3
June.....	990	21,769	388,922	49,072	4,456	1,098	90.1	73.9
May.....	1,053	22,121	398,051	49,688	(NA)	1,114	94.6	74.2

(NA) Not available. ^r Revised

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Labor day, Thanksgiving Day, and December 25. ²Collected quarterly. ³Wheat flour production as compared with amount of wheat ground.

TABLE 2. QUANTITY OF DURUM WHEAT AND RYE FLOUR PRODUCTION, GRAIN CONSUMPTION
MILL STOCKS, AND CAPACITY

PRODUCT CODE	DESCRIPTION OF ITEM	UNIT OF MEASURE	APRIL 1979	MARCH 1979	APRIL 1978
	DURUM WHEAT (INCLUDED IN TABLE 1 DATA):				
0011173	DURUM WHEAT GROUND.	M BU	3,261	3,860	2,237
2041153	STRAIGHT SEMOLINA DURUM FLOUR	M CWT	1,482	1,761	993
2041155	BLENDED SEMOLINA DURUM FLOUR.	DO	(D)	(D)	(D)
	RYE:				
0011951	RYE GROUND FOR FLOUR.	M BU	288	340	284
2041611	RYE FLOUR PRODUCTION.	M CWT	136	147	126
2041618	RYE MILLFEED PRODUCTION	TONS	1,594	1,958	1,591
2041611	RYE FLOUR STOCKS (1).	M CWT	(NA)	21	(NA)
	24 HOUR CAPACITY (1).	DO	10	10	10

Note: Data include estimates for small mills. Detail may not add to total due to independent rounding. These data exclude all flour blended by macaroni and spaghetti manufacturers, etc., as such activities are not within scope of this survey. Only mills engaged in milling flour or meal are included in this survey.

(D) Withheld to avoid disclosure of figures for individual companies. (NA) Not available.

¹Collected quarterly.

TABLE 3. QUANTITY OF WHEAT GROUND FOR FLOUR AND WHEAT FLOUR PRODUCTION, BY DIVISION AND STATES
(WHEAT GROUND FOR FLOUR IN THOUSANDS OF BUSHELS; WHEAT PRODUCTION IN THOUSANDS OF HUNDREDWEIGHT)

GEOGRAPHIC AREA	APRIL 1979		MARCH 1979		APRIL 1978	
	WHEAT GROUND FOR FLOUR	WHEAT FLOUR PRODUCTION	WHEAT GROUND FOR FLOUR	WHEAT FLOUR PRODUCTION	WHEAT GROUND FOR FLOUR	WHEAT FLOUR PRODUCTION
UNITED STATES, TOTAL.	50,034	22,248	52,454	23,454	50,478	22,554
MIDDLE ATLANTIC.	6,591	2,872	7,060	3,169	5,812	2,694
NEW YORK.	5,451	2,365	5,793	2,611	4,549	2,125
NORTH CENTRAL.	26,557	11,794	27,515	12,285	28,057	12,517
OHIO.	2,656	1,168	3,152	1,387	2,744	1,211
INDIANA.	1,228	528	1,300	562	1,266	569
ILLINOIS.	2,708	1,216	2,983	1,322	3,222	1,369
MICHIGAN.	818	355	935	412	902	344
MINNESOTA.	5,686	2,482	5,526	2,500	5,672	2,579
IOWA.	(D)	(D)	(D)	(D)	(D)	(D)
MISSOURI.	3,308	1,507	3,860	1,735	4,263	1,912
NEBRASKA.	(D)	(D)	(D)	(D)	(D)	(D)
KANSAS.	6,600	2,988	6,061	2,750	6,985	3,177
SOUTH ATLANTIC.	3,211	1,404	3,343	1,457	2,934	1,316
EAST SOUTH CENTRAL.	2,418	1,062	2,775	1,307	2,537	1,118
TENNESSEE.	1,885	831	2,113	1,020	2,046	905
WEST SOUTH CENTRAL.	3,732	1,685	3,454	1,552	3,637	1,542
OKLAHOMA.	1,573	725	1,352	622	1,531	710
TEXAS.	1,560	694	1,507	668	1,600	611
MOUNTAIN.	2,688	1,242	2,921	1,337	2,918	1,291
MONTANA.	592	275	682	309	627	288
UTAH.	(D)	(D)	(D)	(D)	(D)	597
PACIFIC.	4,837	2,189	5,386	2,347	4,583	2,076
WASHINGTON.	1,309	592	1,401	639	1,404	632
OREGON.	1,021	452	1,012	456	769	324
CALIFORNIA AND HAWAII.	2,507	1,145	2,973	1,252	2,410	1,120

Note: Detail may not add to total due to independent rounding.

(D) Withheld to avoid disclosure of figures for individual companies.

Table 4. EXPORTS OF WHEAT AND WHEAT FLOUR

Country to which exported	March 1979	February 1978	3 months through March 1979
WHEAT FLOUR, EXCEPT MEAL AND GROATS, FOR RELIEF OR CHARITY (1314010, 1314020 AND 1314030) (1,000 cwt.)			
Total.....	389	229	922
Egypt.....	107	98	286
Guatemala.....	4	3	8
Colombia.....	1	2	4
Ecuador.....	3	-	3
Brazil.....	2	-	2
Israel.....	-	-	-
India.....	10	3	19
Chile.....	53	25	89
Sri Lanka (Ceylon).....	-	-	26
Philippine Republic.....	-	-	-
Morocco.....	22	-	22
Other.....	187	98	463
WHEAT FLOUR, WHOLLY U.S. WHEAT, EXCEPT DURUM FLOUR AND SEMOLINA (1314040) (1,000 cwt.)			
Total.....	1,077	1,105	2,482
Nicaragua.....	-	-	-
Jamaica.....	38	47	134
Brazil.....	16	-	16
Iceland.....	-	-	3
Jordan.....	-	-	-
Saudi Arabia.....	234	219	562
Sri Lanka (Ceylon).....	-	-	-
Egypt.....	619	816	1,435
Philippine Republic.....	-	-	-
Korean Republic.....	-	-	-
Morocco.....	-	-	-
Other.....	170	23	332
WHEAT, INCLUDING SPELT OR MESLIN, UNMILLED, NOT DONATED FOR RELIEF OR CHARITY (1306540) (1,000 bu.)			
Total.....	75,546	67,105	213,051
U.S.S.R.....	13,866	10,316	28,220
Venezuela.....	2,248	38	4,197
Peru.....	-	108	103
Brazil.....	5,452	4,998	13,344
Portugal.....	1,141	2,266	3,407
Iran.....	2,420	870	6,872
Indonesia.....	1,410	513	3,305
Korean Republic.....	4,721	4,883	14,321
China (Taiwan).....	3,523	1,010	7,596
Japan.....	9,651	12,117	33,880
Egypt.....	5,610	3,620	15,893
Nigeria.....	2,598	2,633	7,298
Other.....	22,906	23,738	74,615

Note: Data in this table are taken from Foreign Trade publication FT-140, U.S. Exports. The Schedule B codes are shown above.

- Represents zero.

Table 5. PRODUCTION, EXPORTS, IMPORTS AND APPARENT CONSUMPTION OF WHEAT PRODUCTION: MARCH 1979

(Quantity in 1,000 cwt.; value in thousands of dollars)

Product	Manufacturers' shipments		Export of domestic merchandise ¹		Percent exports to manufacturers' shipments		Imports for consumption ²		Calculated import duty	Apparent consumption ⁴	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value ³		Quantity	Value
Wheat flour.....	23,454	(NA)	1,466	14,250	6.3	(NA)	-	-	-	21,988	(NA)

Note: Comparison of Standard Industrial Classification codes, Schedule B export numbers, and TSUSA import numbers is as follows:

Domestic output	Exports	Imports
20411	131.4010-131.4040	-

- Represents zero. (NA) Not available.

¹Source: Bureau of the Census Report FT-410, U.S. Exports, Commodity by Country.

²Source: Bureau of the Census Report IM-146, Imports for Consumption.

³This dollar value represents the c.i.f. (cost, insurance, and freight) value at first port of entry in the United States plus U.S. import duties.

⁴Apparent consumption represents domestic production plus imports minus exports.

DESCRIPTION OF SURVEY

Scope of Survey—This survey covers firms engaged in the production of wheat and rye flour.

Sampling Description—The data shown in this publication were collected on Bureau of the Census monthly Form M20A, **Flour Milling Products**. The aggregates published in this report have been compiled from a sample of approximately 250 respondents, accounting for 98 percent of the total U.S. production of flour mill products. The universe for this sample was the 1958 Census of Manufactures. The reporting panel consists of mills with a daily capacity of over 400 sacks of flour. Approximately 200 small establishments are in the nonmail universe. Their production data are estimated based upon their 1958 Census of Manufactures report. The monthly reporting panel was selected by arraying the reporting units in descending order by size for each product line, then choosing a sufficient number of respondents (beginning with the largest) to yield a coverage of approximately 98 percent for each product line.

The data for 1977 and 1976 as shown in tables 1A and 1B of this report have been revised. Approximately six establishments were added to this survey in January 1978 based upon an extensive reconciliation with the 1976 Annual Survey of Manufactures (ASM). Data for 1976 and 1977 have been estimated for these plants based upon their 1976 ASM data and their 1978 M20A reports. Revised State data for 1976 and 1977 will be shown in a separate report to be issued in the next few weeks.

Survey Error—The figures for the current month include estimates for respondents in the reporting panel whose reports were not received in time for tabulation, as well as for 200 small respondents excluded from the mail panel. Missing figures for companies in the reporting panel are "imputed" from the month-to-month movements shown by reporting firms. The overall imputation rate is generally limited to 12 percent, including about 2 percent for small respondents excluded from the monthly reporting panel. Individual items with imputation rates greater than 12 percent are footnoted.

The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse, both because the actual monthly movements for nonrespondents may or may not closely agree with the imputed movements and because the estimates for nonpanel cases may or may not reflect their current activity. The probable difference between the actual and imputed figures is unknown. The degree of uncertainty regarding the accuracy of the data, however, increases as the percentage of imputation increases. Figures with imputation rates above 12 percent, particularly, should be used with caution.

Revision to Previous Period Data—Statistics for previous months may be revised due to receipt of corrected data from respondents, including late reports for which imputations were previously made as described above, and other corrections. Figures which have been revised by more than 5 percent from previously published figures are indicated by footnotes.

Reporting Period Adjustment—Since January 1975, the data have been adjusted for the number of working days in the reporting period in order to compensate for differences in individual company reporting patterns, i.e., calendar month, 4-week, 5-week periods.

Seasonal Adjustment—This report presents seasonally adjusted data in table 1A for selected series shown in table 1B. The data were seasonally adjusted using the X-11 variant of the Bureau of the Census Method II seasonal adjustment program. This seasonal adjustment program is a ratio-to-moving average method. The seasonal adjustment program largely eliminates the effect of seasonal variations (intra-year variations repeated constantly from year to year) within the series. The seasonally adjusted data usually provide a better measure than the not seasonally adjusted (original) data of the month-to-month variations which are due to factors other than seasonal pattern.

EXPLANATION OF TERMS

Units of Quantity—Grain ground is measured in bushels of 60 pounds for wheat, and 56 pounds for rye. Flour production is measured in sacks of 100 pounds.

Capacity—Based on replies to the question, "What is the maximum quantity of flour that can be produced in your mill in one day if operated for 24 hours?", the capacity of idle mills is included until the mills are reported to be destroyed, dismantled, or abandoned.

Grain—Represents the purchased weight of grain ground, including the weight of foreign material (dockage).

Millfeed—Includes bran, middlings, shorts, and other milling by products intended principally for use as feed materials.

Wheat Flour—Includes whole wheat flour, farina, industrial flour, and durum flour.

Stocks of Flour (quarterly)—Represents mill stocks in all positions, sold and unsold.

COMPARISON OF EXPORT, IMPORT, AND DOMESTIC OUTPUT DATA

The Standard Industrial Classification (SIC) system used for domestic output and the statistical export and import commodity classifications were developed independently and are based on somewhat differing systems of classification. This results in considerable difficulty in comparing the three types of data for many commodity areas. The domestic output classification is based on type of industry; whereas, the export and import classification system is more materials oriented. Aside from the differences in the basic commodity classifications, there are additional problems involving import data, since there are a substantial number of imported commodities, which are not produced in the United States or which are produced only in very small quantities and which, therefore, have no com-

parable domestic output classification. The relationships shown in this report should be considered only as approximations, since, in addition to those mentioned above, there are also the following problems affecting the comparability of the three sets of data:

(a) *Valuation*—There are different methods of valuation for the three types of data.

Domestic Output—Valued at the point of production. It includes the net sales price, f.o.b. plant, after discounts and allowances, exclusive of freight charges and excise taxes.

Exports—Valued at the point of exportation. It includes the selling price, or cost if not sold, and inland freight, insurance, and other charges to the export point.

Imports—Valued at the first port of entry in the United States. It includes c. i. f. (cost, insurance, and freight), duty, and other charges to the import point.

(b) *Duplication in Quantity and Value of Output*—Because producers' shipments of some commodities may be used as materials for incorporation into other commodities, combinations of data for such commodities may contain a certain amount of duplication. Thus, percentages of exports to output or imports to apparent consumption (output plus imports minus exports) at four-digit or broader levels may be understated. Where duplication is known to be substantial, the output data are appropriately noted in the table.

(c) *Low-Valued Export and Import Transactions*—Commodity information is not shown for individual imports valued under \$251. For exports, commodity information is not reported for shipments individually valued under \$251 effective October 1969 and for shipments valued under \$100 prior to October 1969. This is believed to have only negligible effect on the statistics for most commodities.

(d) *Manufacturers' Shipments, Not Specified by Kind*—The value of manufacturers' shipments at the four-digit industry level often includes a small amount which is not distributed among the individual five-digit product classes. Export and import percentages at the more detailed levels might, therefore, be slightly overstated.

(e) *Time Lag Between Output and Exports*—There will be a lag between the time a commodity is produced or shipped by the producer and the time it is actually exported, especially when intermediaries (wholesalers, exporters, etc.) are involved. Ordinarily, this type of discrepancy is insignificant in annual figures.

(f) *"Direct" vs "Total" Commodity Export and Imports*—Export and import data do not include materials which are

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Flour Milling Products



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MAY 1979

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Issued July 1979

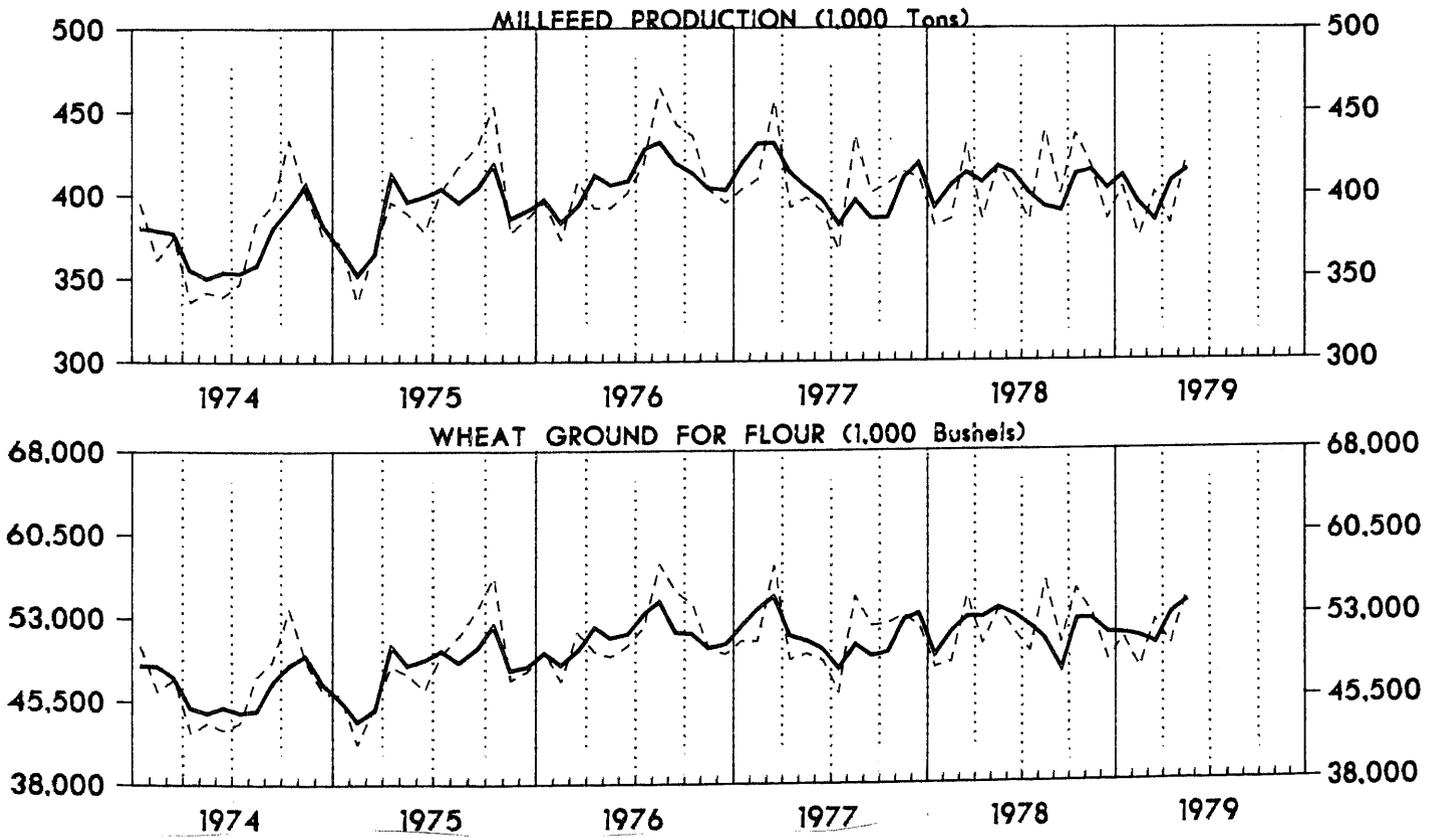
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WHEAT FLOUR MILLING: 1974 TO 1979

———— Seasonally Adjusted
- - - - - Not Seasonally Adjusted



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Month and year	Wheat flour production (1,000 cwt.)		Millfeed production (tons)	Wheat ground for flour (1,000 bushels)	Wheat flour mill stocks ² (1,000 cwt.)	Daily 24-hour capacity in wheat flour ² (1,000 cwt.)	Wheat flour produced as percent of capacity	Flour extraction rate ³ (percent)
	Average per working day ¹	Calendar month total						
1979								
May.....	1,117	24,565	421,721	54,886	(NA)	1,048	106.5	74.5
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March.....	1,066	23,454	401,433	52,454	3,477	1,048	106.6	74.5
February.....	1,077	21,542	373,702	48,163	(NA)	1,049	102.7	74.5
January.....	1,037	22,817	403,584	50,886	(NA)	1,049	98.9	74.7
1978								
December.....	1,097	21,942	384,942	48,913	3,214	1,049	104.6	74.8
November.....	1,130	23,738	416,152	52,934	(NA)	1,057	106.9	74.7
October.....	1,129	24,843	436,433	55,348	(NA)	1,057	106.8	74.6
September.....	1,123	22,456	400,263	50,531	3,342	1,057	105.9	73.9
August.....	1,089	25,053	438,773	56,062	(NA)	1,036	105.1	74.4
July.....	1,117	22,335	384,090	49,749	(NA)	1,036	100.1	74.8
June.....	1,047	23,051	401,878	51,544	3,459	1,036	101.1	74.5
May.....	1,094	24,078	417,032	53,601	(NA)	1,034	105.8	74.5
April.....	1,127	22,554	385,227	50,478	(NA)	1,034	109.1	74.5
March.....	1,057	24,330	430,260	54,821	4,096	1,034	102.3	73.8
February.....	1,086	21,738	385,269	48,910	(NA)	1,072	101.4	74.2
January.....	1,037	21,787	380,717	48,430	(NA)	1,072	92.4	74.9
1977								
December.....	1,062	23,363	410,169	52,106	4,160	1,072	99.1	74.7
November.....	1,133	23,785	412,818	53,159	(NA)	1,104	102.6	74.6
October.....	1,114	23,396	406,255	52,352	(NA)	1,104	100.9	74.5
September.....	1,113	23,381	401,384	52,244	3,782	1,104	100.8	74.6
August.....	1,062	24,419	435,359	54,844	(NA)	1,098	96.7	74.2
July.....	1,028	20,566	365,665	46,149	(NA)	1,098	93.7	74.3
June.....	990	21,769	388,922	49,072	4,456	1,098	90.1	73.9
May.....	1,053	22,121	398,051	49,688	(NA)	1,114	94.6	74.2

(NA) Not available. ^rRevised

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Labor day, Thanksgiving Day, and December 25. ²Collected quarterly. ³Wheat flour production as compared with amount of wheat ground.

TABLE 2. QUANTITY OF DURUM WHEAT AND RYE FLOUR PRODUCTION, GRAIN CONSUMPTION
MILL STOCKS, AND CAPACITY

PRODUCT CODE	DESCRIPTION OF ITEM	UNIT OF MEASURE	MAY 1979	APRIL 1979	MAY 1978
	DURUM WHEAT (INCLUDED IN TABLE 1 DATA):				
0011173	DURUM WHEAT GROUND	M BU	3,178	3,389	2,591
2041153	STRAIGHT SEMOLINA DURUM FLOUR	M CWT	1,424	1,532	1,127
2041155	BLENDED SEMOLINA DURUM FLOUR	DO	(D)	(D)	(D)
	RYE:				
0011951	RYE GROUND FOR FLOUR	M BU	278	288	293
2041611	RYE FLOUR PRODUCTION	M CWT	123	136	146
2041618	RYE MILLFEED PRODUCTION	TONS	1,510	1,594	1,544
2041611	RYE FLOUR STOCKS (1)	M CWT	(NA)	(NA)	(NA)
	24 HOUR CAPACITY	DO	9	10	10

Note: Data include estimates for small mills. Detail may not add to total due to independent rounding. These data exclude all flour blended by macaroni and spaghetti manufacturers, etc., as such activities are not within scope of this survey. Only mills engaged in milling flour or meal are included in this survey.

(D) Withheld to avoid disclosure of figures for individual companies. (NA) Not available.

¹Collected quarterly.

TABLE 3. QUANTITY OF WHEAT GROUND FOR FLOUR AND WHEAT FLOUR PRODUCTION, BY DIVISION AND STATES
(WHEAT GROUND FOR FLOUR IN THOUSANDS OF BUSHELS; WHEAT PRODUCTION IN THOUSANDS OF HUNDREDWEIGHT)

GEOGRAPHIC AREA	MAY 1979		APRIL 1979		MAY 1978	
	WHEAT GROUND FOR FLOUR	WHEAT FLOUR PRODUCTION	WHEAT GROUND FOR FLOUR	WHEAT FLOUR PRODUCTION	WHEAT GROUND FOR FLOUR	WHEAT FLOUR PRODUCTION
UNITED STATES, TOTAL	54,886	24,565	50,205	22,291	53,601	24,078
MIDDLE ATLANTIC	7,375	3,338	6,590	2,872	6,700	3,028
NEW YORK	5,927	2,686	5,450	2,365	5,132	2,330
NORTH CENTRAL	28,915	12,983	26,852	11,890	29,045	13,036
OHIO	2,834	1,254	2,656	1,168	2,689	1,184
INDIANA	1,227	522	1,228	528	1,068	466
ILLINOIS	3,382	1,418	2,708	1,216	3,228	1,443
MICHIGAN	886	386	818	355	870	373
MINNESOTA	6,014	2,736	5,981	2,618	6,136	2,795
IOWA	(D)	(D)	(D)	(D)	(D)	(D)
MISSOURI	3,456	1,588	3,308	1,507	4,523	2,034
NEBRASKA	(D)	(D)	(D)	(D)	(D)	(D)
KANSAS	7,224	3,273	6,600	2,988	7,051	3,169
SOUTH ATLANTIC	3,524	1,536	3,211	1,404	3,062	1,355
EAST SOUTH CENTRAL	2,747	1,209	2,418	1,062	2,791	1,222
TENNESSEE	2,129	940	1,885	831	2,178	957
WEST SOUTH CENTRAL	3,845	1,721	3,705	1,671	3,827	1,677
OKLAHOMA	1,559	719	1,573	725	1,574	727
TEXAS	1,743	758	1,533	680	1,749	732
MOUNTAIN	3,028	1,386	2,688	1,200	2,986	1,367
MONTANA	678	306	592	275	763	366
UTAH	(D)	(D)	(D)	(D)	(D)	(D)
PACIFIC	5,452	2,392	4,741	2,192	5,190	2,393
WASHINGTON	1,421	643	1,309	592	1,673	755
OREGON	922	418	939	428	799	349
CALIFORNIA AND HAWAII	3,109	1,331	2,493	1,172	2,718	1,289

Note: Detail may not add to total due to independent rounding.

(D) Withheld to avoid disclosure of figures for individual companies.

Table 4. EXPORTS OF WHEAT AND WHEAT FLOUR

Country to which exported	April 1979	March 1979	4 months through April 1979
WHEAT FLOUR, EXCEPT MEAL AND GROATS, FOR RELIEF OR CHARITY (1314010, 1314020 AND 1314030) (1,000 cwt.)			
Total.....	333	389	1,255
Egypt.....	120	107	406
Guatemala.....	-	4	8
Colombia.....	-	1	4
Ecuador.....	-	3	3
Brazil.....	-	2	2
Israel.....	32	-	32
India.....	-	10	19
Chile.....	11	53	100
Sri Lanka (Ceylon).....	13	-	39
Philippine Republic.....	42	-	42
Morocco.....	-	22	22
Other.....	115	187	578
WHEAT FLOUR, WHOLLY U.S. WHEAT, EXCEPT DURUM FLOUR AND SEMOLINA (1314040) (1,000 cwt.)			
Total.....	642	1,077	3,124
Nicaragua.....	-	-	-
Jamaica.....	7	38	141
Brazil.....	16	16	32
Iceland.....	9	-	12
Jordan.....	-	-	-
Saudi Arabia.....	10	234	572
Sri Lanka (Ceylon).....	3	-	3
Egypt.....	351	619	1,786
Philippine Republic.....	-	-	-
Korean Republic.....	-	-	-
Morocco.....	-	-	-
Other.....	246	170	578
WHEAT, INCLUDING SPELT OR MESLIN, UNMILLED, NOT DONATED FOR RELIEF OR CHARITY (1306540) (1,000 bu.)			
Total.....	76,961	75,546	290,012
U.S.S.R.....	1,645	13,866	29,865
Venezuela.....	1,836	2,248	6,033
Peru.....	-	-	103
Brazil.....	769	5,452	14,113
Portugal.....	2,315	1,141	5,722
Iran.....	1,910	2,420	8,782
Indonesia.....	3,810	1,410	7,115
Korean Republic.....	6,687	4,721	21,008
China (Taiwan).....	1,010	3,523	8,606
Japan.....	10,544	9,651	44,424
Egypt.....	5,229	5,610	21,122
Nigeria.....	2,880	2,598	10,178
Other.....	38,326	22,906	112,941

Note: Data in this table are taken from Foreign Trade publication FT-140, U.S. Exports. The Schedule B codes are shown above.

- Represents zero.

Table 5. PRODUCTION, EXPORTS, IMPORTS AND APPARENT CONSUMPTION OF WHEAT PRODUCTION: APRIL 1979

(Quantity in 1,000 cwt.; value in thousands of dollars)

Product	Manufacturers' shipments		Export of domestic merchandise ¹		Percent exports to manufacturers' shipments		Imports for consumption ²		Calculated import duty	Apparent consumption ⁴	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value ³		Quantity	Value
Wheat flour.....	22,291	(NA)	975	3,228	4.4	(NA)	-	-	-	21,316	(NA)

Note: Comparison of Standard Industrial Classification codes, Schedule B export numbers, and TSUSA import numbers is as follows:

Domestic output	Exports	Imports
20411	131.4010-131.4040	-

- Represents zero. (NA) Not available.

¹Source: Bureau of the Census Report FT-410, U.S. Exports, Commodity by Country.

²Source: Bureau of the Census Report IM-146, Imports for Consumption.

³This dollar value represents the c.i.f. (cost, insurance, and freight) value at first port of entry in the United States plus U.S. import duties.

⁴Apparent consumption represents domestic production plus imports minus exports.

DESCRIPTION OF SURVEY

Scope of Survey—This survey covers firms engaged in the production of wheat and rye flour.

Sampling Description—The data shown in this publication were collected on Bureau of the Census monthly Form M20A, **Flour Milling Products**. The aggregates published in this report have been compiled from a sample of approximately 250 respondents, accounting for 98 percent of the total U.S. production of flour mill products. The universe for this sample was the 1958 Census of Manufactures. The reporting panel consists of mills with a daily capacity of over 400 sacks of flour. Approximately 200 small establishments are in the nonmail universe. Their production data are estimated based upon their 1958 Census of Manufactures report. The monthly reporting panel was selected by arraying the reporting units in descending order by size for each product line, then choosing a sufficient number of respondents (beginning with the largest) to yield a coverage of approximately 98 percent for each product line.

Survey Error—The figures for the current month include estimates for respondents in the reporting panel whose reports were not received in time for tabulation, as well as for 200 small respondents excluded from the mail panel. Missing figures for companies in the reporting panel are "imputed" from the month-to-month movements shown by reporting firms. The overall imputation rate is generally limited to 12 percent, including about 2 percent for small respondents excluded from the monthly reporting panel. Individual items with imputation rates greater than 12 percent are footnoted.

The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse, both because the actual monthly movements for nonrespondents may or may not closely agree with the imputed movements and because the estimates for nonpanel cases may or may not reflect their current activity. The probable difference between the actual and imputed figures is unknown. The degree of uncertainty regarding the accuracy of the data, however, increases as the percentage of imputation increases. Figures with imputation rates above 12 percent, particularly, should be used with caution.

Revision to Previous Period Data—Statistics for previous months may be revised due to receipt of corrected data from respondents, including late reports for which imputations were previously made as described above, and other corrections. Figures which have been revised by more than 5 percent from previously published figures are indicated by footnotes.

Reporting Period Adjustment—Since January 1975, the data have been adjusted for the number of working days in the reporting period in order to compensate for differences in individual company reporting patterns, i.e., calendar month, 4-week, 5-week periods.

Seasonal Adjustment—This report presents seasonally adjusted data in table 1A for selected series shown in table 1B. The data were seasonally adjusted using the X-11 variant of the Bureau of the Census Method II seasonal adjustment program. This seasonal adjustment program is a ratio-to-moving average method. The seasonal adjustment program largely eliminates the effect of seasonal variations (intra-year variations repeated constantly from year to year) within the series. The seasonally adjusted data usually provide a better measure than the not seasonally adjusted (original) data of the month-to-month variations which are due to factors other than seasonal pattern.

EXPLANATION OF TERMS

Units of Quantity—Grain ground is measured in bushels of 60 pounds for wheat, and 56 pounds for rye. Flour production is measured in sacks of 100 pounds.

Capacity—Based on replies to the question, "What is the maximum quantity of flour that can be produced in your mill in one day if operated for 24 hours?", the capacity of idle mills is included until the mills are reported to be destroyed, dismantled, or abandoned.

Grain—Represents the purchased weight of grain ground, including the weight of foreign material (dockage).

Millfeed—Includes bran, middlings, shorts, and other milling by products intended principally for use as feed materials.

Wheat Flour—Includes whole wheat flour, farina, industrial flour, and durum flour.

Stocks of Flour (quarterly)—Represents mill stocks in all positions, sold and unsold.

COMPARISON OF EXPORT, IMPORT, AND DOMESTIC OUTPUT DATA

The Standard Industrial Classification (SIC) system used for domestic output and the statistical export and import commodity classifications were developed independently and are based on somewhat differing systems of classification. This results in considerable difficulty in comparing the three types of data for many commodity areas. The domestic output classification is based on type of industry; whereas, the export and import classification system is more materials oriented. Aside from the differences in the basic commodity classifications, there are additional problems involving import data, since there are a substantial number of imported commodities, which are not produced in the United States or which are produced only in very small quantities and which, therefore, have no com-

parable domestic output classification. The relationships shown in this report should be considered only as approximations, since, in addition to those mentioned above, there are also the following problems affecting the comparability of the three sets of data:

(a) *Valuation*—There are different methods of valuation for the three types of data.

Domestic Output—Valued at the point of production. It includes the net sales price, f.o.b. plant, after discounts and allowances, exclusive of freight charges and excise taxes.

Exports—Valued at the point of exportation. It includes the selling price, or cost if not sold, and inland freight, insurance, and other charges to the export point.

Imports—Valued at the first port of entry in the United States. It includes c. i. f. (cost, insurance, and freight), duty, and other charges to the import point.

(b) *Duplication in Quantity and Value of Output*—Because producers' shipments of some commodities may be used as materials for incorporation into other commodities, combinations of data for such commodities may contain a certain amount of duplication. Thus, percentages of exports to output or imports to apparent consumption (output plus imports minus exports) at four-digit or broader levels may be understated. Where duplication is known to be substantial, the output data are appropriately noted in the table.

(c) *Low-Valued Export and Import Transactions*—Commodity information is not shown for individual imports valued under \$251. For exports, commodity information is not reported for shipments individually valued under \$251 effective October 1969 and for shipments valued under \$100 prior to October 1969. This is believed to have only negligible effect on the statistics for most commodities.

(d) *Manufacturers' Shipments, Not Specified by Kind*—The value of manufacturers' shipments at the four-digit industry level often includes a small amount which is not distributed among the individual five-digit product classes. Export and import percentages at the more detailed levels might, therefore, be slightly overstated.

(e) *Time Lag Between Output and Exports*—There will be a lag between the time a commodity is produced or shipped by the producer and the time it is actually exported, especially when intermediaries (wholesalers, exporters, etc.) are involved. Ordinarily, this type of discrepancy is insignificant in annual figures.

(f) *"Direct" vs "Total" Commodity Export and Imports*—Export and import data do not include materials which are

incorporated into other more finished products and exported or imported in finished form. Thus, by showing only direct exports and imports, the relation of exports to output and imports to apparent consumption for intermediate products is considerably understated.

(g) *Used Commodities*—With a few exceptions, used or rebuilt commodities are classified in the same import or export codes as is new merchandise. Percentages are thus overstated to the extent that used or rebuilt products are significant in trade.

RELATED REPORTS

An annual Current Industrial Report is published in this series. The annual report summarizes monthly figures and incorporates all known revisions in the series for both current and previous year, thus, providing a single reference copy to replace the monthly publications. This annual summary provides additional information on the history of this survey.

The Bureau of the Census also publishes reports on related products as follows:

Series	Frequency	Title
<i>Current Industrial Reports</i>		
M3-1	Monthly	Manufacturers' Shipments, Inventories, and Orders
M20C	Monthly	Confectionery, Including Chocolate Products
<i>Foreign Trade Reports</i>		
FT-410	Monthly	U.S. Exports—Schedule B—Commodity by Country
FT-135	Monthly	U.S. General Imports—Schedule A—Commodity by Country

CONTACTS FOR DATA USERS

Subject Area	Contact	Phone Number
Current Industrial Report M20A	Geraldine Bynum	(301) 763-7807
Foreign Trade publications	Juanita Noone	(301) 763-5140
To order a Census Bureau publication	Daisy Williams	(301) 763-7472
To order Census Bureau microfiche	Dorothy Dunham	(301) 763-5511

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Flour Milling Products



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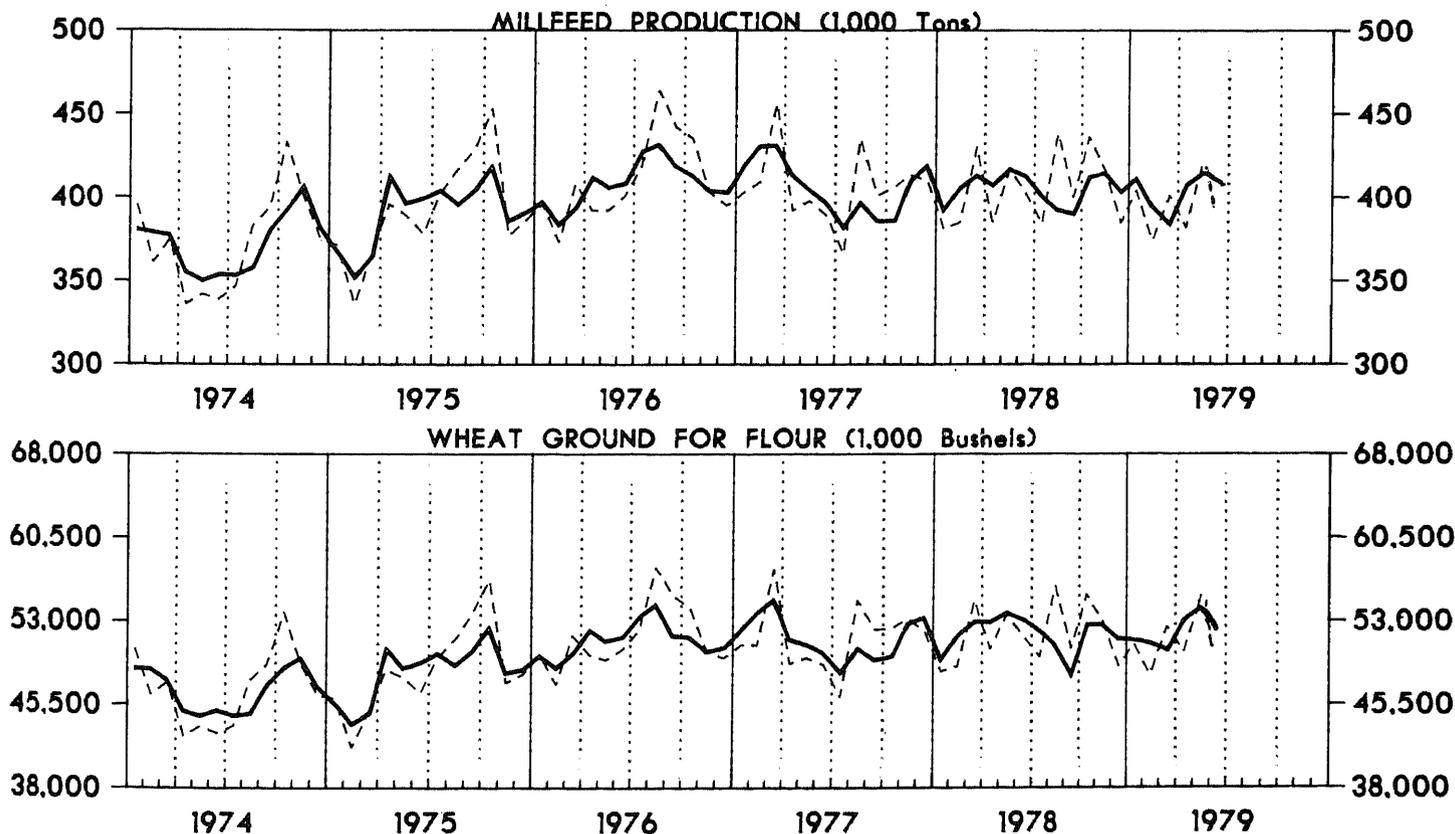
The statistics in this publication are based on a survey of manufacturers and represent total U.S. production of flour milling products. Estimates are included for companies whose

reports were not received in time for tabulation. A more complete description of this survey appears on page 7.

THIS REPORT INCLUDES DATA COMPARING DOMESTIC OUTPUT, EXPORTS, AND IMPORTS

WHEAT FLOUR MILLING: 1974 TO 1979

———— Seasonally Adjusted
- - - - - Not Seasonally Adjusted



Address inquiries concerning these figures to U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233, or call Geraldine Bynum, (301) 763-7807.

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Table 1A. SUMMARY OF WHEAT FLOUR MILLING, SEASONALLY ADJUSTED: 1977 TO 1979

Month and year	Wheat flour production average per working day ¹ (1,000 cwt.)	Millfeed production (1,000 tons)	Wheat ground for flour (1,000 bushels)
1979			
June.....	1,104	405	52,133
May.....	1,135	415	54,440
April.....	1,084	408	53,142
March.....	1,095	385	50,453
February.....	1,084	395	51,051
January.....	1,080	412	51,348
1978			
December.....	1,086	404	51,457
November.....	1,093	415	52,728
October.....	1,084	412	52,742
September.....	1,043	390	46,147
August.....	1,087	393	50,886
July.....	^r 1,124	401	52,176
June.....	1,124	413	53,196
May.....	1,111	417	53,821
April.....	1,108	408	53,000
March.....	1,122	413	53,010
February.....	1,096	406	51,788
January.....	^r 1,065	393	49,714
1977			
December.....	1,072	419	53,399
November.....	1,089	410	52,846
October.....	1,028	386	49,905
September.....	1,075	386	49,609
August.....	1,060	397	50,659
July.....	1,044	383	48,499
June.....	1,044	397	50,196

^r Revised.

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Thanksgiving Day, and December 25.

Table 1B. SUMMARY OF WHEAT FLOUR MILLING, NOT SEASONALLY ADJUSTED: 1977 TO 1979

Month and year	Wheat flour production (1,000 cwt.)		Millfeed production (tons)	Wheat ground for flour (1,000 bushels)	Wheat flour mill stocks ² (1,000 cwt.)	Daily 24-hour capacity in wheat flour ² (1,000 cwt.)	Wheat flour produced as percent of capacity	Flour extraction rate ³ (percent)
	Average per working day ¹	Calendar month total						
1979								
June.....	1,073	22,532	391,903	50,308	3,895	1,038	103.4	74.6
May.....	1,117	24,573	421,726	55,093	(NA)	1,048	106.6	74.3
April.....	1,061	22,291	382,444	50,205	(NA)	1,048	101.3	74.1
March.....	1,066	23,454	401,433	52,454	3,477	1,048	106.6	74.5
February.....	1,077	21,542	373,702	48,163	(NA)	1,049	102.7	74.5
January.....	1,037	22,817	403,584	50,886	(NA)	1,049	98.9	74.7
1978								
December.....	1,097	21,942	384,942	48,913	3,214	1,049	104.6	74.8
November.....	1,130	23,738	416,152	52,934	(NA)	1,057	106.9	74.7
October.....	1,129	24,843	436,433	55,348	(NA)	1,057	106.8	74.6
September.....	^r 1,123	^r 22,456	400,263	^r 50,531	3,342	1,057	105.9	73.9
August.....	1,089	25,053	438,773	56,062	(NA)	1,036	105.1	74.4
July.....	1,117	22,335	384,090	49,749	(NA)	1,036	100.1	74.8
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September.....	1,113	23,381	401,384	52,244	3,782	1,104	100.8	74.6
August.....	1,062	24,419	435,359	54,844	(NA)	1,098	96.7	74.2
July.....	1,028	20,566	365,665	46,149	(NA)	1,098	93.7	74.3
June.....	990	21,769	388,922	49,072	4,456	1,098	90.1	73.9

(NA) Not available. ^rRevised.

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and December 25. ²Collected quarterly. ³Wheat flour production as compared with amount of wheat ground.

Table 2. QUANTITY OF DURUM WHEAT AND RYE FLOUR PRODUCTION, GRAIN CONSUMPTION MILL STOCKS, AND CAPACITY

Product code	Description of item	Unit of measure	June 1979	May 1979	June 1978
	Durum wheat (included in table 1 data):				
00111 73	Durum wheat ground.....	M bu.....	2,417	3,179	2,362
20411 53	Straight semolina durum flour.....	M cwt.....	1,059	1,429	1,028
20411 55	Blended semolina durum flour.....	..do.....	(D)	(D)	(D)
	Rye:				
00119 51	Rye ground for flour.....	M bu.....	299	278	298
20416 11	Rye flour production.....	M cwt.....	129	123	137
20416 18	Rye millfeed production.....	Tons.....	1,785	1,510	1,712
20416 11	Rye flour stocks ¹	M cwt.....	50	(NA)	22
	24 hour capacity.....	..do.....	16	16	10

Note: Data include estimates for small mills. Detail may not add to total due to independent rounding. These data exclude all flour blended by macaroni and spaghetti manufacturers, etc., as such activities are not within scope of this survey. Only mills engaged in milling flour or meal are included in this survey.

(D) Withheld to avoid disclosure of figures for individual companies. (NA) Not available.

¹Collected quarterly.

Table 3. QUANTITY OF WHEAT GROUND FOR FLOUR AND WHEAT FLOUR PRODUCTION, BY DIVISION AND STATES

(Wheat ground for flour in thousands of bushels; wheat production in thousands of hundredweight)

Geographic area	June 1979		May 1979		June 1978	
	Wheat ground for flour	Wheat flour production	Wheat ground for flour	Wheat flour production	Wheat ground for flour	Wheat flour production
United States, total.....	50,308	22,532	55,093	24,573	51,544	23,051
Middle Atlantic.....	6,471	2,926	7,359	3,334	6,771	3,110
New York.....	5,308	2,405	5,910	2,686	5,508	2,549
North Central.....	27,222	12,227	29,104	12,983	27,584	12,352
Ohio.....	2,473	1,097	2,834	1,254	2,420	1,049
Indiana.....	1,477	618	1,227	522	1,093	477
Illinois.....	2,906	1,282	3,383	1,418	2,684	1,176
Michigan.....	772	336	886	386	917	399
Minnesota.....	5,573	2,565	6,014	2,736	5,996	2,732
Iowa.....	(D)	(D)	(D)	(D)	(D)	(D)
Missouri.....	3,331	1,528	3,466	1,588	4,559	2,044
Nebraska.....	(D)	(D)	(D)	(D)	(D)	(D)
Kansas.....	6,952	3,159	7,224	3,273	6,756	3,054
South Atlantic.....	2,985	1,302	3,524	1,536	3,110	1,342
East South Central.....	2,264	993	2,747	1,209	2,649	1,168
Tennessee.....	1,745	767	2,129	940	2,103	929
West South Central.....	3,697	1,661	3,875	1,733	3,868	1,671
Oklahoma.....	1,587	733	1,559	719	1,560	717
Texas.....	1,472	646	1,773	770	1,700	688
Mountain.....	2,946	1,350	3,028	1,386	2,861	1,292
Montana.....	552	256	678	306	655	301
Utah.....	(D)	(D)	(D)	(D)	(D)	(D)
Pacific.....	4,723	2,076	5,456	2,392	4,701	2,116
Washington.....	1,193	539	1,421	643	1,306	581
Oregon.....	769	347	923	418	901	396
California and Hawaii.....	2,761	1,187	3,112	1,331	2,494	1,139

Note: Detail may not add to total due to independent rounding.

(D) Withheld to avoid disclosure of figures for individual companies.

Table 4. EXPORTS OF WHEAT AND WHEAT FLOUR

Country to which exported	May 1979	April 1979	5 months through May 1979
WHEAT FLOUR, EXCEPT MEAL AND GROATS, FOR RELIEF OR CHARITY (1314010, 1314020 AND 1314030) (1,000 cwt.)			
Total.....	251	333	1,506
Egypt.....	10	120	416
Guatemala.....	26	-	34
Colombia.....	1	-	5
Ecuador.....	-	-	3
Brazil.....	-	-	2
Israel.....	26	32	58
India.....	16	-	35
Chile.....	-	11	100
Sri Lanka (Ceylon).....	-	13	39
Philippine Republic.....	59	42	101
Morocco.....	15	-	37
Other.....	98	115	676
WHEAT FLOUR, WHOLLY U.S. WHEAT, EXCEPT DURUM FLOUR AND SEMOLINA (1314040) (1,000 cwt.)			
Total.....	2,632	642	5,756
Nicaragua.....	-	-	-
Jamaica.....	3	7	144
Brazil.....	-	16	22
Iceland.....	-	9	12
Jordan.....	4	-	4
Saudi Arabia.....	243	10	815
Sri Lanka (Ceylon).....	15	3	18
Egypt.....	1,673	351	3,459
Philippine Republic.....	-	-	-
Korean Republic.....	-	-	-
Morocco.....	-	-	-
Other.....	694	246	1,272
WHEAT, INCLUDING SPELT OR MESLIN, UNMILLED, NOT DONATED FOR RELIEF OR CHARITY (1306540) (1,000 bu.)			
Total.....	76,789	76,961	366,801
U.S.S.R.....	7,266	16,451	51,937
Venezuela.....	4,011	1,836	10,044
Peru.....	889	-	992
Brazil.....	1,858	769	15,971
Portugal.....	1,350	2,315	7,072
Iran.....	5,686	1,910	14,468
Indonesia.....	-	3,810	7,115
Korean Republic.....	4,887	6,687	25,895
China (Taiwan).....	1,360	1,010	9,966
Japan.....	6,867	10,544	51,291
Egypt.....	5,581	5,229	26,703
Nigeria.....	2,052	2,880	12,230
Other.....	34,982	23,520	133,117

Note: Data in this table are taken from Foreign Trade publication FT-410, U.S. Exports. The Schedule B codes are shown above.

- Represents zero.

Table 5. PRODUCTION, EXPORTS, IMPORTS AND APPARENT CONSUMPTION OF WHEAT PRODUCTION: JANUARY, FEBRUARY, APRIL, AND MAY 1979

(Quantity in 1,000 cwt.; value in thousands of dollars)

Product	Manufacturers' shipments		Export of domestic merchandise ¹		Percent exports to manufacturers' shipments		Imports for consumption ²		Calculated import duty	Apparent consumption ⁴	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value ³		Quantity	Value
MAY 1979											
Wheat flour.....	24,573	(NA)	2,883	29,271	1.2	(NA)	-	-	-	21,690	(NA)
APRIL 1979											
Wheat flour.....	22,291	(NA)	975	9,803	4.4	(NA)	-	-	-	21,316	(NA)
FEBRUARY 1979											
Wheat flour.....	21,542	(NA)	1,334	13,177	6.2	(NA)	-	-	-	20,208	(NA)
JANUARY 1979											
Wheat flour.....	22,817	(NA)	604	5,886	2.6	(NA)	-	-	-	22,213	(NA)

Note: The data as shown for exports for January, February, and April 1979 have been revised to read as shown above. Schedule B code 1314020 was inadvertently excluded from the data shown for these months and for all months of 1978. Revised 1978 data will be shown in 1978 M20A Summary report to be issued shortly.

Comparison of Standard Industrial Classification codes, Schedule B export numbers, and TSUSA import numbers is as follows:

<u>Domestic output</u>	<u>Exports</u>	<u>Imports</u>
20411	131.4010-131.4040	-

- Represents zero. (NA) Not available.

¹Source: Bureau of the Census Report FT-410, U.S. Exports, Commodity by Country.

²Source: Bureau of the Census Report IM-146, Imports for Consumption.

³This dollar value represents the c.i.f. (cost, insurance, and freight) value at first port of entry in the United States plus U.S. import duties.

⁴Apparent consumption represents domestic production plus imports minus exports.

DESCRIPTION OF SURVEY

Scope of Survey—This survey covers firms engaged in the production of wheat and rye flour.

Sampling Description—The data shown in this publication were collected on Bureau of the Census monthly Form M20A, **Flour Milling Products**. The aggregates published in this report have been compiled from a sample of approximately 250 respondents, accounting for 98 percent of the total U.S. production of flour mill products. The universe for this sample was the 1958 Census of Manufactures. The reporting panel consists of mills with a daily capacity of over 400 sacks of flour. Approximately 200 small establishments are in the nonmail universe. Their production data are estimated based upon their 1958 Census of Manufactures report. The monthly reporting panel was selected by arraying the reporting units in descending order by size for each product line, then choosing a sufficient number of respondents (beginning with the largest) to yield a coverage of approximately 98 percent for each product line.

The data for 1977 and 1976 as shown in tables 1A and 1B of this report have been revised. Approximately six establishments were added to this survey in January 1978 based upon an extensive reconciliation with the 1976 Annual Survey of Manufactures (ASM). Data for 1976 and 1977 have been estimated for these plants based upon their 1976 ASM data and their 1978 M20A reports. Revised State data for 1976 and 1977 will be shown in a separate report to be issued in the next few weeks.

Survey Error—The figures for the current month include estimates for respondents in the reporting panel whose reports were not received in time for tabulation, as well as for 200 small respondents excluded from the mail panel. Missing figures for companies in the reporting panel are "imputed" from the month-to-month movements shown by reporting firms. The overall imputation rate is generally limited to 12 percent, including about 2 percent for small respondents excluded from the monthly reporting panel. Individual items with imputation rates greater than 12 percent are footnoted.

The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse, both because the actual monthly movements for nonrespondents may or may not closely agree with the imputed movements and because the estimates for nonpanel cases may or may not reflect their current activity. The probable difference between the actual and imputed figures is unknown. The degree of uncertainty regarding the accuracy of the data, however, increases as the percentage of imputation increases. Figures with imputation rates above 12 percent, particularly, should be used with caution.

Revision to Previous Period Data—Statistics for previous months may be revised due to receipt of corrected data from respondents, including late reports for which imputations were previously made as described above, and other corrections. Figures which have been revised by more than 5 percent from previously published figures are indicated by footnotes.

Reporting Period Adjustment—Since January 1975, the data have been adjusted for the number of working days in the reporting period in order to compensate for differences in individual company reporting patterns, i.e., calendar month, 4-week, 5-week periods.

Seasonal Adjustment—This report presents seasonally adjusted data in table 1A for selected series shown in table 1B. The data were seasonally adjusted using the X-11 variant of the Bureau of the Census Method II seasonal adjustment program. This seasonal adjustment program is a ratio-to-moving average method. The seasonal adjustment program largely eliminates the effect of seasonal variations (intra-year variations repeated constantly from year to year) within the series. The seasonally adjusted data usually provide a better measure than the not seasonally adjusted (original) data of the month-to-month variations which are due to factors other than seasonal pattern.

EXPLANATION OF TERMS

Units of Quantity—Grain ground is measured in bushels of 60 pounds for wheat, and 56 pounds for rye. Flour production is measured in sacks of 100 pounds.

Capacity—Based on replies to the question, "What is the maximum quantity of flour that can be produced in your mill in one day if operated for 24 hours?", the capacity of idle mills is included until the mills are reported to be destroyed, dismantled, or abandoned.

Grain—Represents the purchased weight of grain ground, including the weight of foreign material (dockage).

Millfeed—Includes bran, middlings, shorts, and other milling by products intended principally for use as feed materials.

Wheat Flour—Includes whole wheat flour, farina, industrial flour, and durum flour.

Stocks of Flour (quarterly)—Represents mill stocks in all positions, sold and unsold.

COMPARISON OF EXPORT, IMPORT, AND DOMESTIC OUTPUT DATA

The Standard Industrial Classification (SIC) system used for domestic output and the statistical export and import commodity classifications were developed independently and are based on somewhat differing systems of classification. This results in considerable difficulty in comparing the three types of data for many commodity areas. The domestic output classification is based on type of industry; whereas, the export and import classification system is more materials oriented. Aside from the differences in the basic commodity classifications, there are additional problems involving import data, since there are a substantial number of imported commodities, which are not produced in the United States or which are produced only in very small quantities and which, therefore, have no com-

parable domestic output classification. The relationships shown in this report should be considered only as approximations, since, in addition to those mentioned above, there are also the following problems affecting the comparability of the three sets of data:

(a) *Valuation*—There are different methods of valuation for the three types of data.

Domestic Output—Valued at the point of production. It includes the net sales price, f.o.b. plant, after discounts and allowances, exclusive of freight charges and excise taxes.

Exports—Valued at the point of exportation. It includes the selling price, or cost if not sold, and inland freight, insurance, and other charges to the export point.

Imports—Valued at the first port of entry in the United States. It includes c. i. f. (cost, insurance, and freight), duty, and other charges to the import point.

(b) *Duplication in Quantity and Value of Output*—Because producers' shipments of some commodities may be used as materials for incorporation into other commodities, combinations of data for such commodities may contain a certain amount of duplication. Thus, percentages of exports to output or imports to apparent consumption (output plus imports minus exports) at four-digit or broader levels may be understated. Where duplication is known to be substantial, the output data are appropriately noted in the table.

(c) *Low-Valued Export and Import Transactions*—Commodity information is not shown for individual imports valued under \$251. For exports, commodity information is not reported for shipments individually valued under \$251 effective October 1969 and for shipments valued under \$100 prior to October 1969. This is believed to have only negligible effect on the statistics for most commodities.

(d) *Manufacturers' Shipments, Not Specified by Kind*—The value of manufacturers' shipments at the four-digit industry level often includes a small amount which is not distributed among the individual five-digit product classes. Export and import percentages at the more detailed levels might, therefore, be slightly overstated.

(e) *Time Lag Between Output and Exports*—There will be a lag between the time a commodity is produced or shipped by the producer and the time it is actually exported, especially when intermediaries (wholesalers, exporters, etc.) are involved. Ordinarily, this type of discrepancy is insignificant in annual figures.

(f) *"Direct" vs "Total" Commodity Export and Imports*—Export and import data do not include materials which are

incorporated into other more finished products and exported or imported in finished form. Thus, by showing only direct exports and imports, the relation of exports to output and imports to apparent consumption for intermediate products is considerably understated.

(g) *Used Commodities*—With a few exceptions, used or rebuilt commodities are classified in the same import or export codes as is new merchandise. Percentages are thus overstated to the extent that used or rebuilt products are significant in trade.

RELATED REPORTS

An annual Current Industrial Report is published in this series. The annual report summarizes monthly figures and incorporates all known revisions in the series for both current and previous year, thus, providing a single reference copy to replace the monthly publications. This annual summary provides additional information on the history of this survey.

The Bureau of the Census also publishes reports on related products as follows:

Series	Frequency	Title
<i>Current Industrial Reports</i>		
M3-1	Monthly	Manufacturers' Shipments, Inventories, and Orders
M20C	Monthly	Confectionery, Including Chocolate Products
<i>Foreign Trade Reports</i>		
FT-410	Monthly	U.S. Exports—Schedule B—Commodity by Country
FT-135	Monthly	U.S. General Imports—Schedule A—Commodity by Country

CONTACTS FOR DATA USERS

Subject Area	Contact	Phone Number
Current Industrial Report M20A	Geraldine Bynum	(301) 763-7807
Foreign Trade publications	Juanita Noone	(301) 763-5140
To order a Census Bureau publication	Daisy Williams	(301) 763-7472
To order Census Bureau microfiche	Dorothy Dunham	(301) 763-5511

Flour Milling Products



U.S. Department of Commerce
BUREAU OF THE CENSUS

JULY 1979

M20A(79)-7
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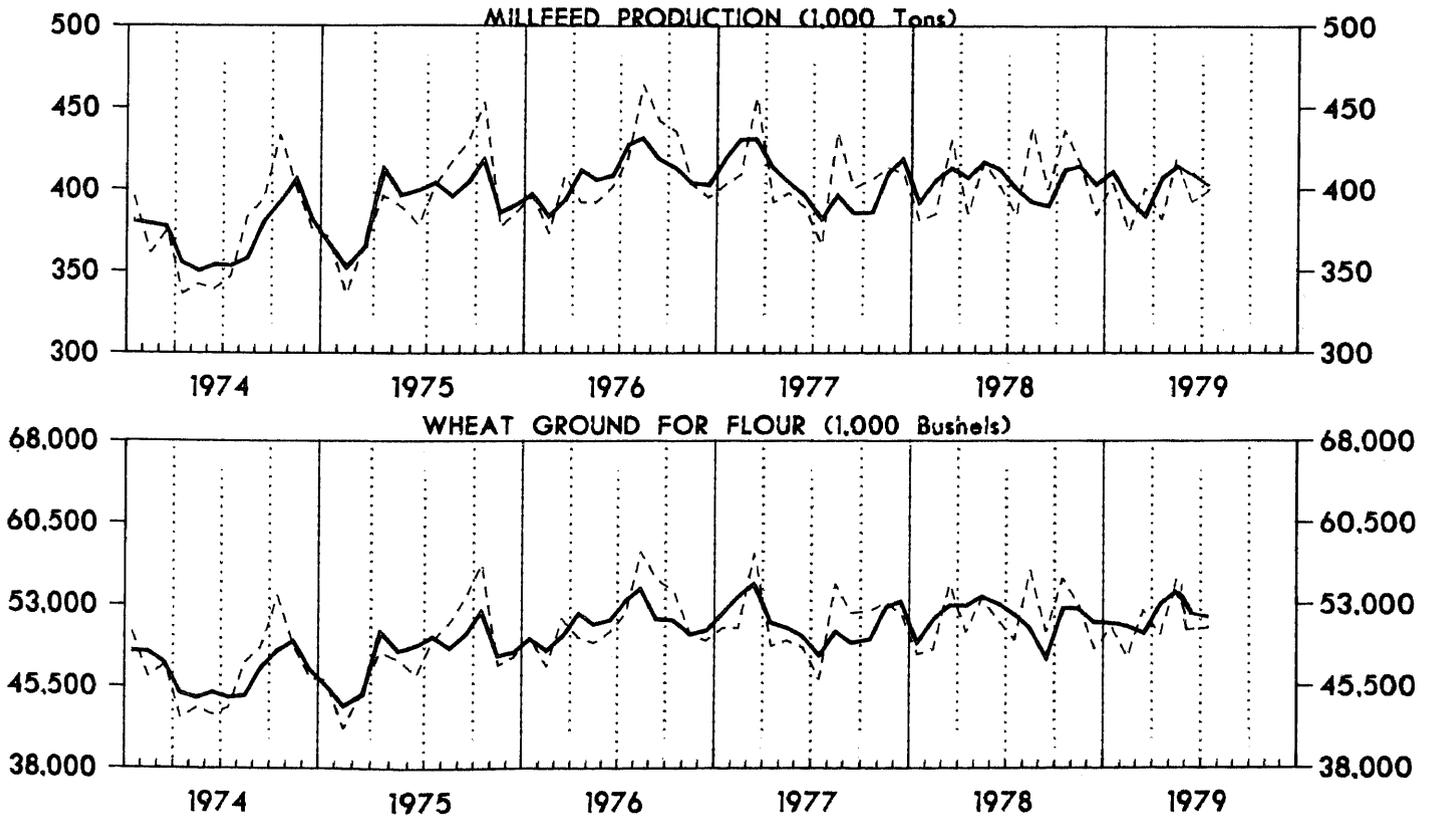
The statistics in this publication are based on a survey of manufacturers and represent total U.S. production of flour milling products. Estimates are included for companies whose

reports were not received in time for tabulation. A more complete description of this survey appears on page 7.

THIS REPORT INCLUDES DATA COMPARING DOMESTIC OUTPUT, EXPORTS, AND IMPORTS

WHEAT FLOUR MILLING: 1974 TO 1979

———— Seasonally Adjusted
- - - - - Not Seasonally Adjusted



Address inquiries concerning these figures to U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233, or call Bob Rivera, (301) 763-7807.

For sale by the Subscriber Services Section (Publications), Bureau of the Census, Washington, D.C. 20233, or any U.S. Department of Commerce district office. Postage stamps not acceptable; currency submitted at sender's risk. Remittances from foreign countries must be by international money order or by a draft on a U.S. bank. Price 25 cents per copy, \$3.30 per year.

Table 1A. SUMMARY OF WHEAT FLOUR MILLING, SEASONALLY ADJUSTED: 1977 TO 1979

Month and year	Wheat flour production average per working day ¹ (1,000 cwt.)	Millfeed production (1,000 tons)	Wheat ground for flour (1,000 bushels)
1979			
July.....	1,140	400	51,924
June.....	1,123	408	52,118
May.....	1,135	415	54,440
April.....	1,084	408	53,142
March.....	1,095	385	50,453
February.....	1,084	395	51,051
January.....	1,080	412	51,348
1978			
December.....	1,086	404	51,457
November.....	1,093	415	52,728
October.....	1,084	412	52,742
September.....	1,043	390	46,147
August.....	1,087	393	50,886
July.....	^r 1,124	401	52,176
June.....	1,124	413	53,196
May.....	1,111	417	53,821
April.....	1,108	408	53,000
March.....	1,122	413	53,010
February.....	1,096	406	51,788
January.....	^r 1,065	393	49,714
1977			
December.....	1,072	419	53,399
November.....	1,089	410	52,846
October.....	1,028	386	49,905
September.....	1,075	386	49,609
August.....	1,060	397	50,659
July.....	1,044	383	48,499

^r Revised.

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Thanksgiving Day, and December 25.

Table 1B. SUMMARY OF WHEAT FLOUR MILLING, NOT SEASONALLY ADJUSTED: 1977 TO 1979

Month and year	Wheat flour production (1,000 cwt.)		Millfeed production (tons)	Wheat ground for flour (1,000 bushels)	Wheat flour mill stocks ² (1,000 cwt.)	Daily 24-hour capacity in wheat flour ² (1,000 cwt.)	Wheat flour produced as percent of capacity	Flour extraction rate ³ (percent)
	Average per working day ¹	Calendar month total						
1979								
July.....	1,102	23,143	399,957	51,821	(NA)	1,050	105.0	74.4
June.....	1,073	22,536	391,196	50,138	3,895	^r 1,050	^r 102.2	74.9
May.....	1,117	24,573	421,726	55,093	(NA)	^r 1,057	^r 105.7	74.3
April.....	1,061	22,291	382,444	50,205	(NA)	^r 1,057	^r 100.4	74.1
March.....	1,066	23,454	401,433	52,454	3,477	^r 1,057	^r 100.9	74.5
February.....	1,077	21,542	373,702	48,163	(NA)	^r 1,058	^r 101.8	74.5
January.....	1,037	22,817	403,584	50,886	(NA)	^r 1,058	^r 98.0	74.7
1978								
December.....	1,097	21,942	384,942	48,913	3,214	^r 1,058	^r 103.7	74.8
November.....	1,130	23,738	416,152	52,934	(NA)	^r 1,066	^r 106.0	74.7
October.....	1,129	24,843	436,433	55,348	(NA)	^r 1,066	^r 105.9	74.6
September.....	^r 1,123	^r 22,456	400,263	^r 50,531	3,342	^r 1,066	^r 105.3	73.9
August.....	1,089	25,053	438,773	56,062	(NA)	^r 1,045	^r 104.2	74.4
July.....	1,117	22,335	384,090	49,749	(NA)	^r 1,045	^r 106.9	74.8
June.....	1,047	23,051	401,878	51,544	3,549	^r 1,045	^r 100.3	74.5
May.....	1,094	24,078	417,032	53,601	(NA)	^r 1,039	^r 105.3	74.5
April.....	1,127	22,554	385,227	50,478	(NA)	^r 1,039	^r 108.5	74.5
March.....	1,057	24,330	430,260	54,821	4,096	^r 1,039	^r 101.8	73.8
February.....	1,086	21,738	385,269	48,910	(NA)	^r 1,077	^r 100.9	74.2
January.....	1,037	21,787	380,717	48,430	(NA)	^r 1,077	^r 92.0	74.9
1977								
December.....	1,062	23,363	410,169	52,106	4,160	^r 1,077	^r 98.6	74.7
November.....	1,133	23,785	412,818	53,159	(NA)	1,104	102.6	74.6
October.....	1,114	23,396	406,255	52,352	(NA)	1,104	100.9	74.5
September.....	1,113	23,381	401,384	52,244	3,782	1,104	100.8	74.6
August.....	1,062	24,419	435,359	54,844	(NA)	1,098	96.7	74.2
July.....	1,028	20,566	365,665	46,149	(NA)	1,098	93.7	74.3

(NA) Not available. ^rRevised.

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and December 25. ²Collected quarterly. ³Wheat flour production as compared with amount of wheat ground.

Table 2. QUANTITY OF DURUM WHEAT AND RYE FLOUR PRODUCTION, GRAIN CONSUMPTION MILL STOCKS, AND CAPACITY

Product code	Description of item	Unit of measure	July 1979	June 1979	July 1978
	Durum wheat (included in table 1 data):				
00111 73	Durum wheat ground.....	M bu.....	2,263	2,417	2,225
20411 53	Straight semolina durum flour.....	M cwt.....	1,074	1,059	961
20411 55	Blended semolina durum flour.....	..do.....	(D)	(D)	(D)
	Rye:				
00119 51	Rye ground for flour.....	M bu.....	293	299	260
20416 11	Rye flour production.....	M cwt.....	130	129	114
20416 18	Rye millfeed production.....	Tons.....	1,639	1,785	1,308
20416 11	Rye flour stocks ¹	M cwt.....	(NA)	50	(NA)
	24 hour capacity.....	..do.....	16	16	9

Note: Data include estimates for small mills. Detail may not add to total due to independent rounding. These data exclude all flour blended by macaroni and spaghetti manufacturers, etc., as such activities are not within scope of this survey. Only mills engaged in milling flour or meal are included in this survey.

(D) Withheld to avoid disclosure of figures for individual companies. (NA) Not available.

¹Collected quarterly.

Table 3. QUANTITY OF WHEAT GROUND FOR FLOUR AND WHEAT FLOUR PRODUCTION, BY DIVISION AND STATES

(Wheat ground for flour in thousands of bushels; wheat production in thousands of hundredweight)

Geographic area	July 1979		June 1979		July 1978	
	Wheat ground for flour	Wheat flour production	Wheat ground for flour	Wheat flour production	Wheat ground for flour	Wheat flour production
United States, total.....	51,821	23,143	50,138	22,536	49,749	22,335
Middle Atlantic.....	6,349	2,870	6,471	2,926	6,830	3,114
New York.....	5,180	2,350	5,308	2,405	5,585	2,593
North Central.....	28,296	12,594	27,037	12,227	26,700	12,019
Ohio.....	2,996	1,299	2,473	1,097	2,521	1,120
Indiana.....	1,466	589	1,477	618	1,222	525
Illinois.....	2,926	1,287	2,906	1,282	2,848	1,253
Michigan.....	794	342	772	336	777	324
Minnesota.....	5,830	2,634	5,573	2,565	5,326	2,434
Iowa.....	(D)	(D)	(D)	(D)	(D)	(D)
Missouri.....	3,437	1,559	3,331	1,528	4,817	2,152
Nebraska.....	(D)	(D)	(D)	(D)	(D)	(D)
Kansas.....	6,936	3,134	6,869	3,127	6,090	2,728
South Atlantic.....	3,322	1,451	2,985	1,302	3,104	1,336
East South Central.....	2,670	1,155	2,264	993	2,457	1,063
Tennessee.....	2,060	896	1,745	767	1,881	815
West South Central.....	3,768	1,683	3,709	1,665	3,494	1,567
Oklahoma.....	1,625	747	1,587	733	1,423	651
Texas.....	1,562	677	1,484	650	1,475	655
Mountain.....	2,879	1,320	2,948	1,350	2,720	1,212
Montana.....	607	280	552	256	561	258
Utah.....	(D)	(D)	(D)	(D)	(D)	(D)
Pacific.....	4,537	2,070	4,724	2,073	4,444	2,024
Washington.....	1,348	611	1,193	539	1,298	571
Oregon.....	706	318	769	347	863	402
California and Hawaii.....	2,483	1,141	2,762	1,187	2,283	1,051

Note: Detail may not add to total due to independent rounding.

(D) Withheld to avoid disclosure of figures for individual companies.

Table 4. EXPORTS OF WHEAT AND WHEAT FLOUR

Country to which exported	June 1979	May 1979	6 months through June 1979
WHEAT FLOUR, EXCEPT MEAL AND GROATS, FOR RELIEF OR CHARITY (1314010 AND 1314030) (1,000 cwt.)			
Total.....	142	195	1,256
Egypt.....	-	10	370
Guatemala.....	1	26	33
Colombia.....	-	-	1
Ecuador.....	1	-	4
Brazil.....	-	-	2
Israel.....	7	26	65
India.....	12	16	47
Chile.....	3	60	103
Sri Lanka (Ceylon).....	12	-	51
Philippine Republic.....	34	-	135
Morocco.....	-	-	37
Other.....	72	57	408
WHEAT FLOUR, WHOLLY U.S. WHEAT, NOT DONATED FOR RELIEF OR CHARITY (1314020 AND 1314040) (1,000 cwt.)			
Total.....	1,731	2,690	7,869
Nicaragua.....	3	2	7
Jamaica.....	21	3	167
Brazil.....	-	-	32
Iceland.....	2	4	22
Jordan.....	20	4	25
Saudi Arabia.....	329	264	1,385
Sri Lanka (Ceylon).....	66	15	110
Egypt.....	1,213	1,673	4,720
Philippine Republic.....	-	-	2
Korean Republic.....	-	-	-
Morocco.....	-	-	-
Other.....	77	725	1,399
WHEAT, INCLUDING SPELT OR MESLIN, UNMILLED, NOT DONATED FOR RELIEF OR CHARITY (1306540) (1,000 bu.)			
Total.....	102,197	76,789	468,998
U.S.S.R.....	19,854	7,266	71,793
Venezuela.....	1,792	4,011	11,836
Peru.....	1,160	888	2,152
Brazil.....	2,090	1,858	18,060
Portugal.....	987	1,350	8,059
Iran.....	2,281	5,686	16,745
Indonesia.....	1,968	1,856	1,189
Korean Republic.....	5,369	4,887	31,265
China (Taiwan).....	3,328	1,360	13,294
Japan.....	7,138	6,867	58,429
Egypt.....	5,395	5,581	32,100
Nigeria.....	4,266	2,052	16,500
Other.....	46,569	33,127	187,576

Note: Data in this table are taken from Foreign Trade publication FT-410, U.S. Exports. The Schedule B codes are shown above.

- Represents zero.

Table 5. PRODUCTION, EXPORTS, IMPORTS AND APPARENT CONSUMPTION OF WHEAT PRODUCTION: JUNE AND MAY 1979

(Quantity in 1,000 cwt.; value in thousands of dollars)

Product	Manufacturers' shipments		Export of domestic merchandise ¹		Percent exports to manufacturers' shipments		Imports for consumption ²		Calculated import duty
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value ³	
JUNE 1979									
Wheat flour.....	23,143	(NA)	1,873	19,954	12.4	(NA)	-	-	-
MAY 1979									
Wheat flour.....	24,573	(NA)	2,883	29,271	11.7	(NA)	-	-	-

Comparison of Standard Industrial Classification codes, Schedule B export numbers, and TSUSA import numbers is as follows:

<u>Domestic output</u>	<u>Exports</u>	<u>Imports</u>
20411	131.4010-131.4040	-

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¹Source: Bureau of the Census Report FT-410, U.S. Exports, Commodity by Country.²Source: Bureau of the Census Report IM-146, Imports for Consumption.³This dollar value represents the c.i.f. (cost, insurance, and freight) value at first port of entry in the United States plus U.S. import duties.

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g **Used Commodities**—With a few exceptions, used or rebuilt commodities are classified in the same import or export codes as is new merchandise. Percentages are thus overstated to the extent that used or rebuilt products are significant in trade.

RELATED REPORTS

An annual Current Industrial Report is published in this series. The annual report summarizes monthly figures and incorporates all known revisions in the series for both current and previous year, thus, providing a single reference copy to replace the monthly publications. This annual summary provides additional information on the history of this survey.

The Bureau of the Census also publishes reports on related products as follows:

Series	Frequency	Title
<i>Current Industrial Reports</i>		
M3-1	Monthly	Manufacturers' Shipments, Inventories, and Orders
M20C	Monthly	Confectionery, Including Chocolate Products
<i>Foreign Trade Reports</i>		
FT-410	Monthly	U.S. Exports—Schedule B—Commodity by Country.
FT-135	Monthly	U.S. General Imports—Schedule A—Commodity by Country

CONTACTS FOR DATA USERS

Subject Area	Contact	Phone Number
Current Industrial Report M20A	Bob Rivera	(301) 763-7807
Foreign Trade publications	Juanita Noone	(301) 763-5140
To order a Census Bureau publication	Daisy Williams	(301) 763-7472
To order Census Bureau microfiche	Dorothy Dunham	(301) 763-5511

Flour Milling Products



U.S. Department of Commerce
BUREAU OF THE CENSUS

AUGUST 1979

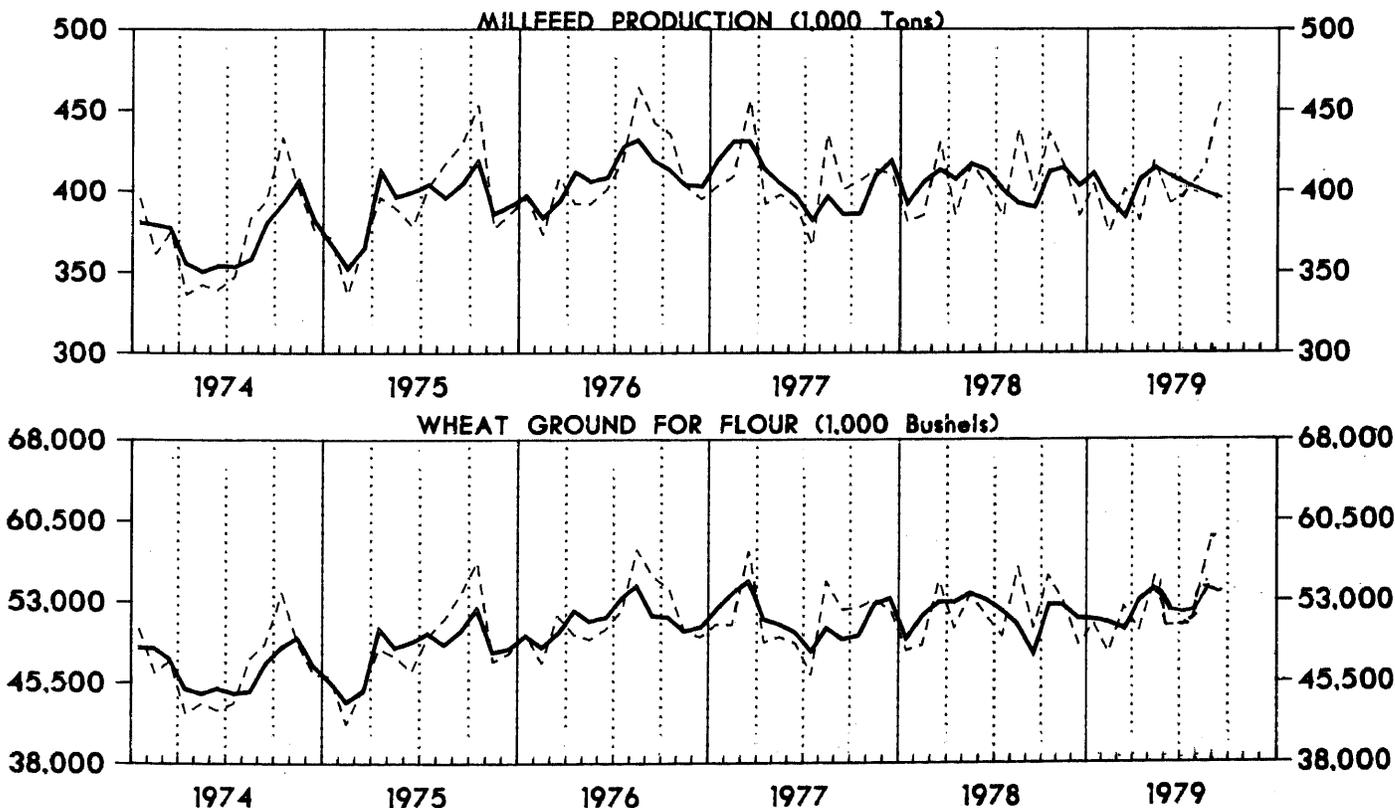
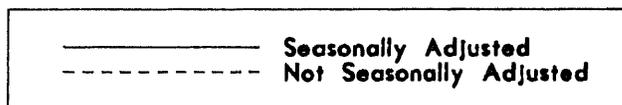
M20A(79)-8
Issued October 1979

The statistics in this publication are based on a survey of manufacturers and represent total U.S. production of flour milling products. Estimates are included for companies whose

reports were not received in time for tabulation. A more complete description of this survey appears on page 6.

THIS REPORT INCLUDES DATA COMPARING DOMESTIC OUTPUT, EXPORTS, AND IMPORTS

WHEAT FLOUR MILLING: 1974 TO 1979



Address inquiries concerning these figures to U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233, or call Bob Rivera (301) 763-7807.

For sale by the Subscriber Services Section (Publications), Bureau of the Census, Washington, D.C. 20233, or any U.S. Department of Commerce district office. Postage stamps not acceptable; currency submitted at sender's risk. Remittances from foreign countries must be by international money order or by a draft on a U.S. bank. Price 25 cents per copy, \$3.30 per year.

Table 1A. SUMMARY OF WHEAT FLOUR MILLING, SEASONALLY ADJUSTED: 1977 TO 1979

Month and year	Wheat flour production average per working day ¹ (1,000 cwt.)	Millfeed production (1,000 tons)	Wheat ground for flour (1,000 bushels)
1979			
August.....	1,141	416	53,684
July.....	1,169	417	54,274
June.....	1,104	405	52,133
May.....	1,135	415	54,440
April.....	1,084	408	53,142
March.....	1,095	385	50,453
February.....	1,084	395	51,051
January.....	1,080	412	51,348
1978			
December.....	1,086	404	51,457
November.....	1,093	415	52,728
October.....	1,084	412	52,742
September.....	1,043	390	46,147
August.....	1,087	393	50,886
July.....	1,124	401	52,176
June.....	1,124	413	53,196
May.....	1,111	417	53,821
April.....	1,108	408	53,000
March.....	1,122	413	53,010
February.....	1,096	406	51,788
January.....	1,065	393	49,714
1977			
December.....	1,072	419	53,399
November.....	1,089	410	52,846
October.....	1,028	386	49,905
September.....	1,075	386	49,609
August.....	1,060	397	50,659

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Thanksgiving Day, and December 25.

Table 1B. SUMMARY OF WHEAT FLOUR MILLING, NOT SEASONALLY ADJUSTED: 1977 TO 1979

Month and year	Wheat flour production (1,000 cwt.)		Millfeed production (tons)	Wheat ground for flour (1,000 bushels)	Wheat flour mill stocks ² (1,000 cwt.)	Daily 24-hour capacity in wheat flour ² (1,000 cwt.)	Wheat flour produced as percent of capacity	Flour extraction rate ³ (percent)
	Average per working day ¹	Calendar month total						
1979								
August.....	1,146	26,368	455,568	58,193	(NA)	1,050	109.2	74.5
July.....	1,119	23,508	403,133	51,995	(NA)	1,050	106.6	75.4
June.....	1,073	22,532	391,903	50,308	3,895	1,050	102.2	74.6
May.....	1,117	24,573	421,726	55,093	(NA)	1,057	105.7	74.3
April.....	1,061	22,291	382,444	50,205	(NA)	1,057	100.4	74.1
March.....	1,066	23,454	401,433	52,454	3,477	1,057	100.9	74.5
February.....	1,077	21,542	373,702	48,163	(NA)	1,058	101.8	74.5
January.....	1,037	22,817	403,584	50,886	(NA)	1,058	98.0	74.7
1978								
December.....	1,089	21,942	384,942	48,913	3,214	1,058	103.7	74.8
November.....	1,130	23,738	416,152	52,934	(NA)	1,066	106.0	74.7
October.....	1,129	24,843	436,433	55,348	(NA)	1,066	105.9	74.6
September.....	1,119	22,456	400,263	50,531	3,342	1,066	105.3	73.9
August.....	1,089	25,053	438,773	56,062	(NA)	1,045	104.2	74.4
July.....	1,063	22,335	384,090	49,749	(NA)	1,045	106.9	74.8
June.....	1,047	23,051	401,878	51,544	3,549	1,045	100.3	74.5
May.....	1,094	24,078	417,032	53,601	(NA)	1,039	105.3	74.5
April.....	1,127	22,554	385,227	50,478	(NA)	1,039	108.5	74.5
March.....	1,057	24,330	430,260	54,821	4,096	1,039	101.8	73.8
February.....	1,089	21,783	385,269	48,910	(NA)	1,077	100.9	74.2
January.....	990	21,787	380,717	48,430	(NA)	1,077	92.0	74.9
1977								
December.....	1,062	23,363	410,169	52,106	4,160	1,077	98.6	74.7
November.....	1,133	23,785	412,818	53,159	(NA)	1,104	102.6	74.6
October.....	1,114	23,396	406,255	52,352	(NA)	1,104	100.9	74.5
September.....	1,113	23,381	401,384	52,244	3,782	1,104	100.8	74.6
August.....	1,062	24,419	435,359	54,844	(NA)	1,098	96.7	74.2

(NA) Not available. ^rRevised.

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and December 25. ²Collected quarterly. ³Wheat flour production as compared with amount of wheat ground.

Table 2. QUANTITY OF DURUM WHEAT AND RYE FLOUR PRODUCTION, GRAIN CONSUMPTION MILL STOCKS, AND CAPACITY

Product code	Description of Item	Unit of measure	August 1979	July 1979	August 1978
	Durum wheat (included in table 1 data):				
00111 73	Durum wheat ground.....	M bu.....	4,144	2,808	3,352
20411 53	Straight semolina durum flour.....	M cwt.....	1,872	1,252	1,487
20411 55	Blended semolina durum flour.....	Do.....	(D)	(D)	(D)
	Rye:				
00119 51	Rye ground for flour.....	M bu.....	306	293	282
20416 11	Rye flour production.....	M cwt.....	137	130	123
20416 18	Rye millfeed production.....	Tons.....	1,544	1,639	1,450
20416 11	Rye flour stocks ¹	M cwt.....	(NA)	(NA)	(NA)
	24 hour capacity.....	Do.....	16	16	10

Note: Data include estimates for small mills. Detail may not add to total due to independent rounding. These data exclude all flour blended by macaroni and spaghetti manufacturers, etc., as such activities are not within scope of this survey. Only mills engaged in milling flour or meal are included in this survey.

(D) Withheld to avoid disclosure of figures for individual companies. (NA) Not available.

¹Collected quarterly.

Table 3. QUANTITY OF WHEAT GROUND FOR FLOUR AND WHEAT FLOUR PRODUCTION, BY DIVISION AND STATES

(Wheat ground for flour in thousands of bushels; wheat production in thousands of hundredweight)

Geographic area	August 1979		July 1979		August 1978	
	Wheat ground for flour	Wheat flour production	Wheat ground for flour	Wheat flour production	Wheat ground for flour	Wheat flour production
United States, total.....	58,193	26,368	51,995	23,508	56,062	25,053
Middle Atlantic.....	7,460	3,466	6,349	2,871	7,851	3,388
New York.....	6,114	2,783	5,180	2,351	6,236	2,697
North Central.....	31,410	14,185	28,491	12,670	30,344	13,542
Ohio.....	3,326	1,460	2,996	1,299	2,914	1,271
Indiana.....	1,433	609	1,466	589	1,273	546
Illinois.....	3,525	1,557	3,067	1,354	3,489	1,542
Michigan.....	950	401	796	343	937	403
Minnesota.....	6,917	3,135	5,830	2,634	6,195	2,816
Iowa.....	(D)	(D)	(D)	(D)	(D)	(D)
Missouri.....	3,755	1,697	3,494	1,588	5,183	2,309
Nebraska.....	(D)	(D)	(D)	(D)	(D)	(D)
Kansas.....	7,402	3,319	6,936	3,115	6,611	2,980
South Atlantic.....	3,812	1,779	3,319	1,446	3,567	1,533
East South Central.....	2,895	1,265	2,670	1,156	2,651	1,159
Tennessee.....	2,226	983	2,060	897	1,981	875
West South Central.....	4,168	1,833	3,735	1,673	3,601	1,614
Oklahoma.....	1,646	761	1,625	747	1,514	698
Texas.....	1,782	789	1,529	667	1,430	627
Mountain.....	3,065	1,457	2,879	1,320	3,040	1,370
Montana.....	648	342	607	280	774	361
Utah.....	(D)	(D)	(D)	(D)	(D)	(D)
Pacific.....	5,383	2,383	4,552	2,372	5,008	2,447
Washington.....	1,499	678	1,348	611	1,618	718
Oregon.....	751	338	721	329	867	425
California and Hawaii.....	3,133	1,367	2,483	1,432	2,523	1,304

Note: Detail may not add to total due to independent rounding.

(D) Withheld to avoid disclosure of figures for individual companies. ^xRevised by 5 percent or more from previously published figures.

Table 4. EXPORTS OF WHEAT AND WHEAT FLOUR

Country to which exported	July 1979	June 1979	7 months through July 1979
WHEAT FLOUR, EXCEPT MEAL AND GROATS, FOR RELIEF OR CHARITY (1314010, AND 1314030) (1,000 cwt.)			
Total.....	156	142	1,409
Egypt.....	10	-	380
Guatemala.....	-	1	33
Colombia.....	-	-	-
Ecuador.....	-	1	7
Brazil.....	-	-	2
Israel.....	16	7	81
India.....	24	12	71
Chile.....	3	3	92
Sri Lanka (Ceylon).....	-	12	51
Philippine Republic.....	51	34	186
Morocco.....	31	-	68
Other.....	21	72	438
WHEAT FLOUR, WHOLLY U.S. WHEAT, EXCEPT DURUM FLOUR AND SEMOLINA (1314040 1314020) NOT DONATED FOR RELIEF OR CHARITY (1,000 cwt.)			
Total.....	1,669	1,731	9,547
Nicaragua.....	1	3	8
Jamaica.....	46	21	214
Brazil.....	-	-	32
Iceland.....	6	2	28
Jordan.....	-	20	25
Saudi Arabia.....	262	329	1,646
Sri Lanka (Ceylon).....	452	66	562
Egypt.....	670	1,213	5,420
Philippine Republic.....	-	-	1
Korean Republic.....	-	-	-
Morocco.....	31	-	68
Other.....	201	77	1,543
WHEAT, INCLUDING SPELT OR MESLIN, UNMILLED, NOT DONATED FOR RELIEF OR CHARITY (1306540) (1,000 bu.)			
Total.....	133,283	102,197	602,281
U.S.S.R.....	17,467	19,854	89,260
Venezuela.....	2,234	1,792	14,070
Peru.....	2,788	1,160	4,940
Brazil.....	11,813	2,090	29,874
Portugal.....	2,208	987	10,267
Iran.....	1,402	2,281	18,150
Indonesia.....	-	1,968	11,892
Korean Republic.....	3,156	5,369	34,421
China (Taiwan).....	2,160	3,328	15,454
Japan.....	12,068	7,138	70,497
Egypt.....	4,840	5,395	36,937
Nigeria.....	2,936	4,266	19,431
Other.....	70,211	46,569	247,088

Note: Data in this table are taken from Foreign Trade publication FT-410, U.S. Exports. The Schedule B codes are shown above.

- Represents zero.

Table 5. PRODUCTION, EXPORTS, IMPORTS AND APPARENT CONSUMPTION OF WHEAT PRODUCTION: JULY 1979

(Quantity in 1,000 cwt.; value in thousands of dollars)

Product	Manufacturer's shipments		Export of domestic merchandise ¹		Percent exports to manufacturers' shipments		Imports for consumption ²		Calculated import duty	Apparent consumption ³ (value)
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value ⁴		
Wheat flour.....	26,368	(NA)	1,825	18,847	6.9	(NA)	-	-	-	(NA)

Comparison of Standard Industrial Classification codes, Schedule B export numbers, and TSUSA import numbers is as follows:

Domestic output	Exports	Imports
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Flour Milling Products



U.S. Department of Commerce
BUREAU OF THE CENSUS

SEPTEMBER 1979

M20A(79)-9
Issued November 1979

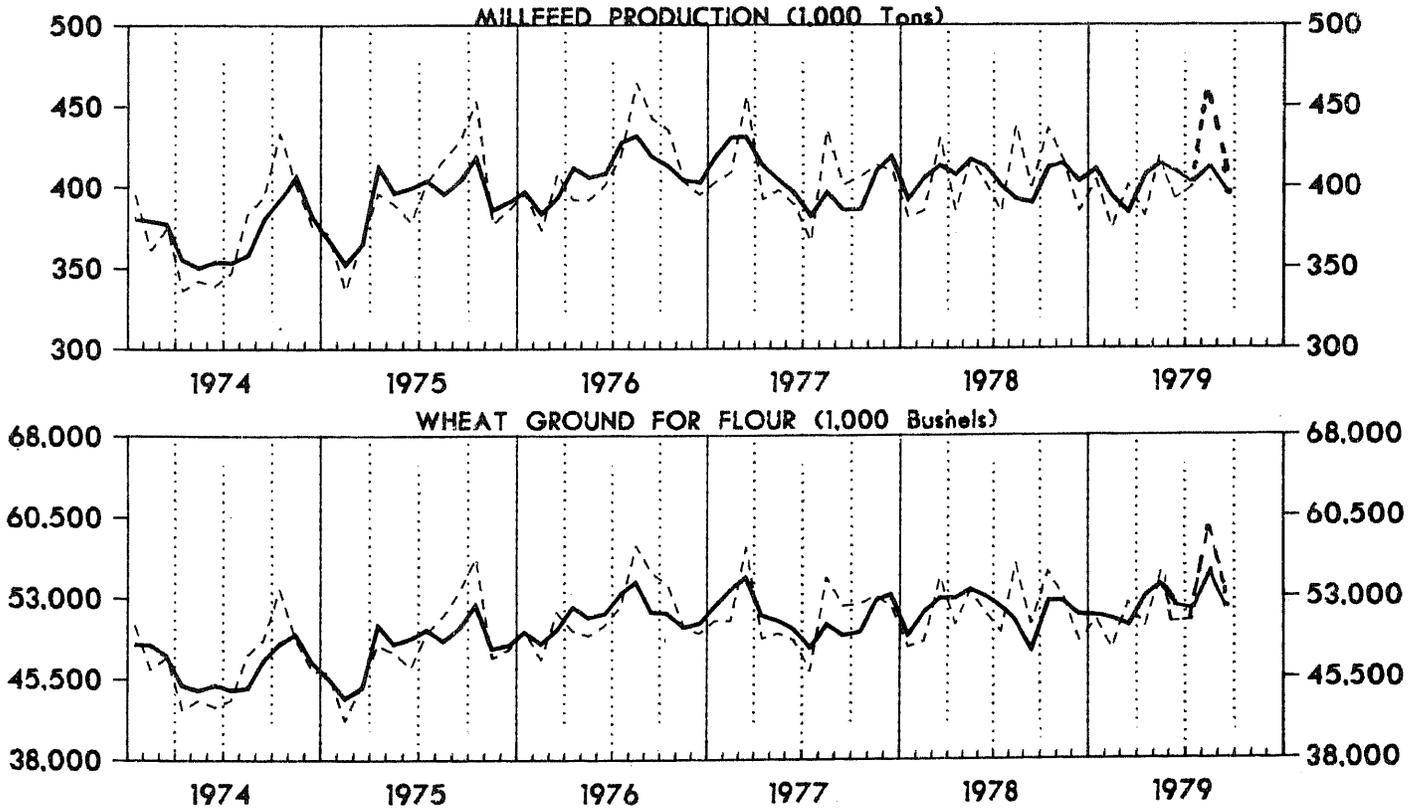
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THIS REPORT INCLUDES DATA COMPARING DOMESTIC OUTPUT, EXPORTS, AND IMPORTS

WHEAT FLOUR MILLING: 1974 TO 1979

—————	Seasonally Adjusted
- - - - -	Not Seasonally Adjusted



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Table 1A. SUMMARY OF WHEAT FLOUR MILLING, SEASONALLY ADJUSTED: 1977 TO 1979

Month and year	Wheat flour production average per working day ¹ (1,000 cwt.)	Millfeed production (1,000 tons)	Wheat ground for flour (1,000 bushels)
1979			
September.....	1,105	399	50,291
August.....	1,155	417	54,312
July.....	1,169	417	54,274
June.....	1,123	408	52,118
May.....	1,135	415	54,440
April.....	1,084	408	53,142
March.....	1,095	385	50,453
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September.....	1,075	386	49,609

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¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Thanksgiving Day, and December 25.

Table 1B. SUMMARY OF WHEAT FLOUR MILLING, NOT SEASONALLY ADJUSTED: 1977 TO 1979

Month and year	Wheat flour production (1,000 cwt.)		Millfeed production (tons)	Wheat ground for flour (1,000 bushels)	Wheat flour mill stocks ² (1,000 cwt.)	Daily 24-hour capacity in wheat flour ² (1,000 cwt.)	Wheat flour produced as percent of capacity	Flour extraction rate ³ (percent)
	Average per working day ¹	Calendar month total						
1979								
September.....	1,221	23,205	403,930	52,001	3,813	1,041	117.3	74.4
August.....	1,145	26,334	456,627	58,874	(NA)	1,050	109.1	74.6
July.....	1,119	23,508	403,133	51,995	(NA)	1,050	106.6	75.4
June.....	1,073	22,536	391,196	50,138	3,895	1,050	102.2	74.9
May.....	1,117	24,573	421,726	55,093	(NA)	1,057	105.7	74.3
April.....	1,061	22,291	382,444	50,205	(NA)	1,057	100.4	74.1
March.....	1,066	23,454	401,433	52,454	3,477	1,057	100.9	74.5
February.....	1,077	21,542	373,702	48,163	(NA)	1,058	101.8	74.5
January.....	1,037	22,817	403,584	50,886	(NA)	1,058	98.0	74.7
1978								
December.....	1,097	21,942	384,942	48,913	3,214	1,058	103.7	74.8
November.....	1,130	23,738	416,152	52,934	(NA)	1,066	106.0	74.7
October.....	1,129	24,843	436,433	55,348	(NA)	1,066	105.9	74.6
September.....	1,123	22,456	400,263	50,531	3,342	1,066	105.3	73.9
August.....	1,089	25,053	438,773	56,062	(NA)	1,045	104.2	74.4
July.....	1,117	22,335	384,090	49,749	(NA)	1,045	106.9	74.8
June.....	1,047	23,051	401,878	51,544	3,549	1,045	100.3	74.5
May.....	1,094	24,078	417,032	53,601	(NA)	1,039	105.3	74.5
April.....	1,127	22,554	385,227	50,478	(NA)	1,039	108.5	74.5
March.....	1,057	24,330	430,260	54,821	4,096	1,039	101.8	73.8
February.....	1,086	21,783	385,269	48,910	(NA)	1,077	100.9	74.2
January.....	1,037	21,787	380,717	48,430	(NA)	1,077	92.0	74.9
1977								
December.....	1,062	23,363	410,169	52,106	4,160	1,077	98.6	74.7
November.....	1,133	23,785	412,818	53,159	(NA)	1,104	102.6	74.6
October.....	1,114	23,396	406,255	52,352	(NA)	1,104	100.9	74.5
September.....	1,113	23,381	401,384	52,244	3,782	1,104	100.8	74.6

(NA) Not available.

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and December 25. ²Collected quarterly. ³Wheat flour production as compared with amount of wheat ground.

Table 2. QUANTITY OF DURUM WHEAT AND RYE FLOUR PRODUCTION, GRAIN CONSUMPTION MILL STOCKS, AND CAPACITY

Product code	Description of item	Unit of measure	September 1979	August 1979	September 1978
	Durum wheat (included in table 1 data):				
00111 73	Durum wheat ground.....	M bu.....	3,418	4,144	3,278
20411 53	Straight semolina durum flour.....	M cwt.....	1,502	1,872	1,468
20411 55	Blended semolina durum flour.....	..do.....	(D)	(D)	(D)
	Rye:				
00119 51	Rye ground for flour.....	M bu.....	314	306	290
20416 11	Rye flour production.....	M cwt.....	138	137	129
20416 18	Rye millfeed production.....	Tons.....	1,727	1,544	1,739
20416 11	Rye flour stocks ¹	M cwt.....	50	(NA)	16
	24 hour capacity.....	..do.....	^r 11	^r 11	10

Note: Data include estimates for small mills. Detail may not add to total due to independent rounding. These data exclude all flour blended by macaroni and spaghetti manufacturers, etc., as such activities are not within scope of this survey. Only mills engaged in milling flour or meal are included in this survey.

(D) Withheld to avoid disclosure of figures for individual companies. (NA) Not available. ^r Revised by 5 percent or more from previously published figures.

¹Collected quarterly.

Table 3. QUANTITY OF WHEAT GROUND FOR FLOUR AND WHEAT FLOUR PRODUCTION, BY DIVISION AND STATES

(Wheat ground for flour in thousands of bushels; wheat production in thousands of hundredweight)

Geographic area	September 1979		August 1979		September 1978	
	Wheat ground for flour	Wheat flour production	Wheat ground for flour	Wheat flour production	Wheat ground for flour	Wheat flour production
United States, total.....	52,001	23,205	58,874	26,334	50,531	22,456
Middle Atlantic.....	7,090	3,198	7,657	3,466	7,247	3,271
New York.....	5,746	2,602	6,114	2,783	5,942	2,700
North Central.....	27,984	12,474	31,953	14,259	27,102	12,081
Ohio.....	3,064	1,349	3,327	1,460	2,759	1,183
Indiana.....	1,396	597	1,433	609	1,312	565
Illinois.....	3,162	1,408	3,623	^r 1,606	3,140	1,393
Michigan.....	828	353	950	401	914	390
Minnesota.....	6,079	2,750	6,917	3,160	5,584	2,543
Iowa.....	(D)	(D)	(D)	(D)	(D)	(D)
Missouri.....	3,358	1,515	3,755	1,697	4,314	1,929
Nebraska.....	(D)	(D)	(D)	(D)	(D)	(D)
Kansas.....	6,254	2,819	7,354	3,319	6,079	2,731
South Atlantic.....	3,092	1,351	3,843	1,669	3,130	1,141
East South Central.....	2,564	1,112	2,895	1,265	2,439	1,062
Tennessee.....	1,980	869	2,226	983	1,828	801
West South Central.....	3,255	1,463	4,078	1,835	3,269	1,474
Oklahoma.....	1,213	560	1,646	761	1,416	653
Texas.....	1,497	665	1,793	791	1,277	565
Mountain.....	3,661	1,678	3,065	1,457	2,925	1,322
Montana.....	643	298	648	342	737	344
Utah.....	(D)	(D)	(D)	(D)	(D)	(D)
Pacific.....	4,355	1,929	5,383	2,383	4,419	2,105
Washington.....	1,276	575	1,499	678	1,297	573
Oregon.....	685	309	751	338	762	348
California and Hawaii.....	2,394	1,045	3,133	1,367	2,360	1,184

Note: Detail may not add to total due to independent rounding.

(D) Withheld to avoid disclosure of figures for individual companies.

^r Revised by 5 percent or more from previously published figures.

Table 4. EXPORTS OF WHEAT AND WHEAT FLOUR

Country to which exported	August 1979	July 1979	8 months through August 1979
WHEAT FLOUR, EXCEPT MEAL AND GROATS, FOR RELIEF OR CHARITY (1314010 AND 1314030) (1,000 cwt.)			
Total.....	303	156	1,712
Egypt.....	-	10	380
Guatemala.....	-	-	33
Colombia.....	-	-	-
Ecuador.....	-	-	7
Brazil.....	-	-	2
Israel.....	3	16	84
India.....	36	24	107
Chile.....	-	3	92
Sri Lanka (Ceylon).....	55	-	106
Philippine Republic.....	77	51	263
Morocco.....	74	31	142
Other.....	58	21	496
WHEAT FLOUR, WHOLLY U.S. WHEAT, NOT DONATED FOR RELIEF OR CHARITY (1314020 AND 1314040) (1,000 cwt.)			
Total.....	2,489	1,669	12,036
Nicaragua.....	2	1	10
Jamaica.....	41	46	260
Brazil.....	-	-	32
Iceland.....	3	6	31
Jordan.....	3	-	28
Saudi Arabia.....	212	262	1,858
Sri Lanka (Ceylon).....	859	452	1,421
Egypt.....	1,076	670	6,496
Philippine Republic.....	-	-	1
Korean Republic.....	-	-	-
Morocco.....	-	31	68
Other.....	293	201	1,831
WHEAT, INCLUDING SPELT OR MESLIN, UNMILLED, NOT DONATED FOR RELIEF OR CHARITY (1306540) (1,000 bu.)			
Total.....	117,787	133,283	720,068
U.S.S.R.....	20,207	17,467	109,467
Venezuela.....	1,338	2,234	15,408
Peru.....	1,910	2,788	6,850
Brazil.....	6,065	11,813	35,939
Portugal.....	2,260	2,208	12,527
Iran.....	1,943	1,402	20,094
Indonesia.....	2,039	-	13,932
Korean Republic.....	11,443	3,156	45,864
China (Taiwan).....	827	2,160	16,280
Japan.....	10,583	12,068	81,080
Egypt.....	-	4,840	36,937
Nigeria.....	2,973	2,936	22,405
Other.....	56,199	70,211	303,285

Note: Data in this table are taken from Foreign Trade publication FT-410, U.S. Exports. The Schedule B codes are shown above.

- Represents zero.

Table 5. PRODUCTION, EXPORTS, IMPORTS AND APPARENT CONSUMPTION OF WHEAT PRODUCTION: AUGUST AND JULY 1979

(Quantity in 1,000 cwt.; value in thousands of dollars)

Product	Manufacturers' shipments		Export of domestic merchandise ¹		Percent exports to manufacturers' shipments		Imports for consumption ²		Calculated import duty
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value ³	
AUGUST 1979									
Wheat flour.....	23,205	(NA)	2,792	23,546	12.0	(NA)	-	-	-
JULY 1979									
Wheat flour.....	26,368	(NA)	1,825	18,847	6.9	(NA)	-	-	-

Comparison of Standard Industrial Classification codes, Schedule B export numbers, and TSUSA import numbers is as follows:

<u>Domestic output</u>	<u>Exports</u>	<u>Imports</u>
20411	131.4010-131.4040	-

- Represents zero. (NA) Not available.

¹Source: Bureau of the Census Report FT-410, U.S. Exports, Commodity by Country.²Source: Bureau of the Census Report IM-146, Imports for Consumption.³This dollar value represents the c.i.f. (cost, insurance, and freight) value at first port of entry in the United States plus U.S. import duties.

DESCRIPTION OF SURVEY

Scope of Survey—This survey covers firms engaged in the production of wheat and rye flour.

Sampling Description—The data shown in this publication were collected on Bureau of the Census monthly Form M20A, Flour Milling Products. The aggregates published in this report have been compiled from a sample of approximately 250 respondents, accounting for 98 percent of the total U.S. production of flour-mill products. The universe for this sample was the 1958 Census of Manufactures. The reporting panel consists of mills with a daily capacity of over 400 sacks of flour. Approximately 200 small establishments are in the nonmail universe. Their production data are estimated based upon their 1958 Census of Manufactures report. The monthly reporting panel was selected by arraying the reporting units in descending order by size for each product line, then choosing a sufficient number of respondents (beginning with the largest) to yield a coverage of approximately 98 percent for each product line.

Survey Error—The figures for the current month include estimates for respondents in the reporting panel whose reports were not received in time for tabulation, as well as for 200 small respondents excluded from the mail panel. Missing figures for companies in the reporting panel are "imputed" from the month-to-month movements shown by reporting firms. The overall imputation rate is generally limited to 12 percent, including about 2 percent for small respondents excluded from the monthly reporting panel. Individual items with imputation rates greater than 12 percent are footnoted.

The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse, both because the actual monthly movements for nonrespondents may or may not closely agree with the imputed movements and because the estimates for nonpanel cases may or may not reflect their current activity. The probable difference between the actual and imputed figures is unknown. The degree of uncertainty regarding the accuracy of the data, however, increases as the percentage of imputation increases. Figures with imputation rates above 12 percent, particularly, should be used with caution.

Revision to Previous Period Data—Statistics for previous months may be revised due to receipt of corrected data from respondents, including late reports for which imputations were previously made as described above, and other corrections. Figures which have been revised by more than 5 percent from previously published figures are indicated by footnotes.

Reporting Period Adjustment—Since January 1975, the data have been adjusted for the number of working days in the reporting period in order to compensate for differences in individual company reporting patterns, i.e., calendar month, 4-week, 5-week periods.

Seasonal Adjustment—This report presents seasonally adjusted data in table 1A for selected series shown in table 1B. The data were seasonally adjusted using the X-11 variant of the

Bureau of the Census Method II seasonal adjustment program. This seasonal adjustment program is a ratio-to-moving average method. The seasonal adjustment program largely eliminates the effect of seasonal variations (intra-year variations repeated constantly from year to year) within the series. The seasonally adjusted data usually provide a better measure than the not seasonally adjusted (original) data of the month-to-month variations which are due to factors other than seasonal pattern.

EXPLANATION OF TERMS

Units of Quantity—Grain ground is measured in bushels of 60 pounds for wheat, and 56 pounds for rye. Flour production is measured in sacks of 100 pounds.

Capacity—Based on replies to the question, "What is the maximum quantity of flour that can be produced in your mill in one day if operated for 24 hours?", the capacity of idle mills is included until the mills are reported to be destroyed, dismantled, or abandoned.

Grain—Represents the purchased weight of grain ground, including the weight of foreign material (dockage).

Millfeed—Includes bran, middlings, shorts, and other milling by products intended principally for use as feed materials.

Wheat Flour—Includes whole wheat flour, farina, industrial flour, and durum flour.

Stocks of Flour (quarterly)—Represents mill stocks in all positions, sold and unsold.

COMPARISON OF EXPORT, IMPORT, AND DOMESTIC OUTPUT DATA

The Standard Industrial Classification (SIC) system used for domestic output and the statistical export and import commodity classifications were developed independently and are based on somewhat differing systems of classification. This results in considerable difficulty in comparing the three types of data for many commodity areas. The domestic output classification is based on type of industry; whereas, the export and import classification system is more materials oriented. Aside from the differences in the basic commodity classifications, there are additional problems involving import data, since there are a substantial number of imported commodities, which are not produced in the United States or which are produced only in very small quantities and which, therefore, have no comparable domestic output classification. The relationships shown in this report should be considered only as approximations, since, in addition to those mentioned above, there are also the following problems affecting the comparability of the three sets of data:

a. *Valuation*—There are different methods of valuation for the three types of data.

Domestic Output—Valued at the point of production. It includes the net sales price, f.o.b. plant, after discounts and allowances, exclusive of freight charges and excise taxes.

Exports—Valued at the point of exportation. It includes the selling price, or cost if not sold, and inland freight, insurance, and other charges to the export point.

Imports—Valued at the first port of entry in the United States. It includes c. i. f. (cost, insurance, and freight), duty, and other charges to the import point.

b. *Duplication in Quantity and Value of Output*—Because producers' shipments of some commodities may be used as materials for incorporation into other commodities, combinations of data for such commodities may contain a certain amount of duplication. Thus, percentages of exports to output or imports to apparent consumption (output plus imports minus exports) at four-digit or broader levels may be understated. Where duplication is known to be substantial, the output data are appropriately noted in the table.

c. *Low-Valued Export and Import Transactions*—Commodity information is not shown for individual imports valued under \$251. For exports, commodity information is not reported for shipments individually valued under \$251 effective October 1969 and for shipments valued under \$100 prior to October 1969. This is believed to have only negligible effect on the statistics for most commodities.

d. *Manufacturers' Shipments, Not Specified by Kind*—The value of manufacturers' shipments at the four-digit industry level often includes a small amount which is not distributed among the individual five-digit product classes. Export and import percentages at the more detailed levels might, therefore, be slightly overstated.

e. *Time Lag Between Output and Exports*—There will be a lag between the time a commodity is produced or shipped by the producer and the time it is actually exported, especially when intermediaries (wholesalers, exporters, etc.) are involved. Ordinarily, this type of discrepancy is insignificant in annual figures.

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Flour Milling Products

OCTOBER 1979



U.S. Department of Commerce
BUREAU OF THE CENSUS

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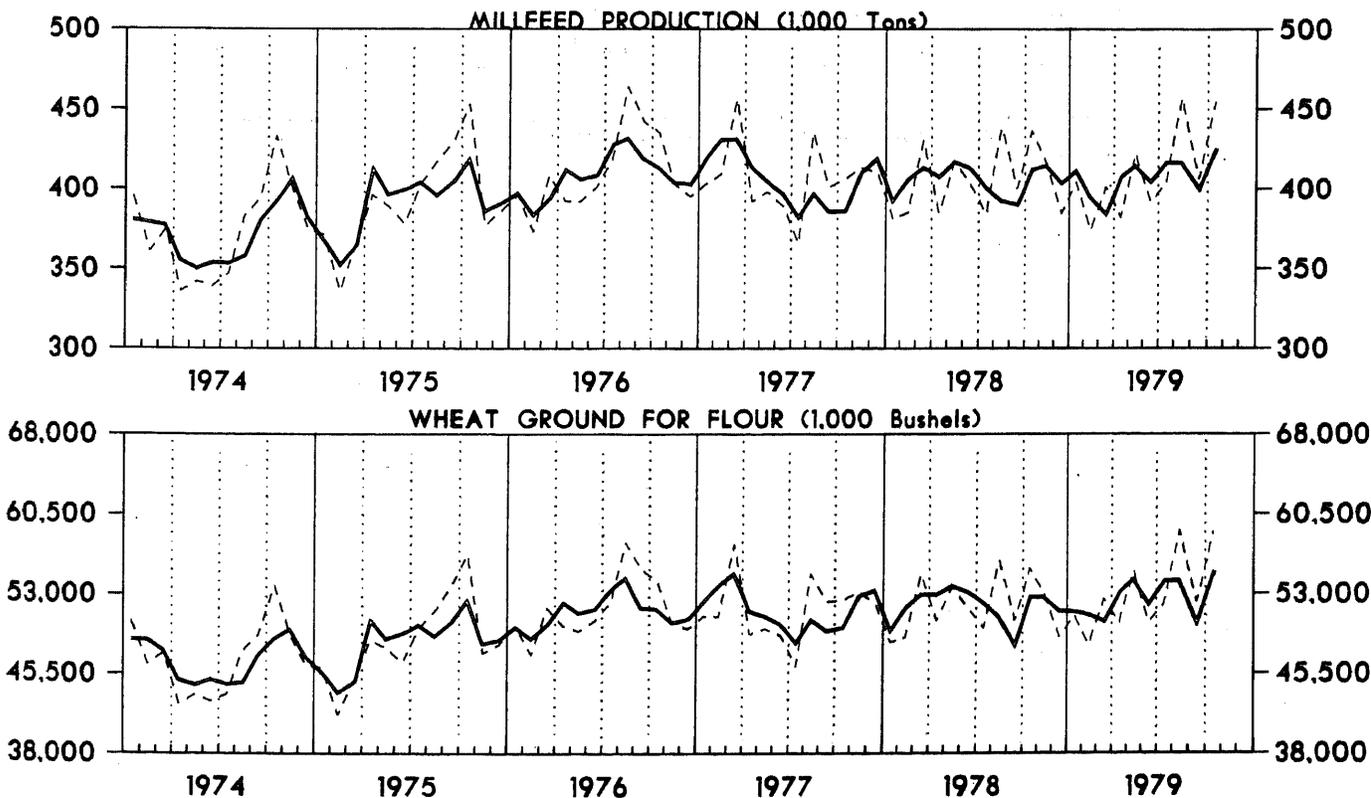
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WHEAT FLOUR MILLING: 1974 TO 1979

———— Seasonally Adjusted
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1979			
October.....	1,158	429	55,133
September.....	1,109	402	50,540
August.....	1,155	417	54,312
July.....	1,169	417	54,274
June.....	1,104	405	52,133
May.....	1,135	415	54,440
April.....	1,084	408	53,142
March.....	1,095	385	50,453
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September.....	1,075	386	49,609
August.....	1,060	397	50,659

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Thanksgiving Day, and December 25.

Table 1B. SUMMARY OF WHEAT FLOUR MILLING, NOT SEASONALLY ADJUSTED: 1977 TO 1979

Month and year	Wheat flour production (1,000 cwt.)		Millfeed production (tons)	Wheat ground for flour (1,000 bushels)	Wheat flour mill stocks ² (1,000 cwt.)	Daily 24-hour capacity in wheat flour ² (1,000 cwt.)	Wheat flour produced as percent of capacity	Flour extraction rate ³ (percent)
	Average per working day ¹	Calendar month total						
1979								
October (22 days).....	1,188	26,139	458,838	58,827	(NA)	1,050	113.2	74.1
September (19 days).....	1,225	23,280	407,341	52,258	3,813	1,050	116.7	74.3
August (23 days).....	1,145	26,334	456,627	58,874	(NA)	1,050	109.1	74.6
July.....	1,119	23,508	403,133	51,995	(NA)	1,050	106.6	75.4
June.....	1,073	22,532	391,903	50,308	3,895	1,050	102.2	74.6
May.....	1,117	24,573	421,726	55,093	(NA)	1,057	105.7	74.3
April.....	1,061	22,291	382,444	50,205	(NA)	1,057	100.4	74.1
March.....	1,066	23,454	401,433	52,454	3,477	1,057	100.9	74.5
February.....	1,077	21,542	373,702	48,163	(NA)	1,058	101.8	74.5
January.....	1,037	22,817	403,584	50,886	(NA)	1,058	98.0	74.7
1978								
December.....	1,089	21,942	384,942	48,913	3,214	1,058	103.7	74.8
November.....	1,130	23,738	416,152	52,934	(NA)	1,066	106.0	74.7
October.....	1,129	24,843	436,433	55,348	(NA)	1,066	105.9	74.6
September.....	1,119	22,456	400,263	50,531	3,342	1,066	105.3	73.9
August.....	1,089	25,053	438,773	56,062	(NA)	1,045	104.2	74.4
July.....	1,063	22,335	384,090	49,749	(NA)	1,045	106.9	74.8
June.....	1,047	23,051	401,878	51,544	3,549	1,045	100.3	74.5
May.....	1,094	24,078	417,032	53,601	(NA)	1,039	105.3	74.5
April.....	1,127	22,554	385,227	50,478	(NA)	1,039	108.5	74.5
March.....	1,057	24,330	430,260	54,821	4,096	1,039	101.8	73.8
February.....	1,089	21,783	385,269	48,910	(NA)	1,077	100.9	74.2
January.....	990	21,787	380,717	48,430	(NA)	1,077	92.0	74.9
1977								
December.....	1,062	23,363	410,169	52,106	4,160	1,077	98.6	74.7
November.....	1,133	23,785	412,818	53,159	(NA)	1,104	102.6	74.6
October.....	1,114	23,396	406,255	52,352	(NA)	1,104	100.9	74.5
September.....	1,113	23,381	401,384	52,244	3,782	1,104	100.8	74.6
August.....	1,062	24,419	435,359	54,844	(NA)	1,098	96.7	74.2

(NA) Not available. ^RRevised.

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and December 25. ²Collected quarterly. ³Wheat flour production as compared with amount of wheat ground.

Table 2. QUANTITY OF DURUM WHEAT AND RYE FLOUR PRODUCTION, GRAIN CONSUMPTION MILL STOCKS, AND CAPACITY

Product code	Description of item	Unit of measure	October 1979	September 1979	October 1978
	Durum wheat (included in table 1 data):				
00111 73	Durum wheat ground.....	M bu.....	3,392	3,418	4,012
20411 53	Straight semolina durum flour.....	M cwt.....	1,475	1,502	1,726
20411 55	Blended semolina durum flour.....	Do.....	(D)	(D)	(D)
	Rye:				
00119 51	Rye ground for flour.....	M bu.....	332	303	340
20416 11	Rye flour production.....	M cwt.....	149	131	149
20416 18	Rye millfeed production.....	Tons.....	1,613	^r 1,642	1,909
20416 11	Rye flour stocks ¹	M cwt.....	(NA)	50	(NA)
	24 hour capacity.....	Do.....	11	11	10

Note: Data include estimates for small mills. Detail may not add to total due to independent rounding. These data exclude all flour blended by macaroni and spaghetti manufacturers, etc., as such activities are not within scope of this survey. Only mills engaged in milling flour or meal are included in this survey.

(D) Withheld to avoid disclosure of figures for individual companies. (NA) Not available. ^r Revised by 5 percent or more from previously published figures.

¹Collected quarterly.

Table 3. QUANTITY OF WHEAT GROUND FOR FLOUR AND WHEAT FLOUR PRODUCTION, BY DIVISION AND STATES

(Wheat ground for flour in thousands of bushels; wheat production in thousands of hundredweight)

Geographic area	October 1979		September 1979		October 1978	
	Wheat ground for flour	Wheat flour production	Wheat ground for flour	Wheat flour production	Wheat ground for flour	Wheat flour production
United States, total.....	58,827	26,139	52,258	23,280	55,348	24,843
Middle Atlantic.....	7,940	3,543	7,117	3,205	7,574	3,461
New York.....	6,397	2,878	5,745	2,601	6,141	2,827
North Central.....	31,512	14,046	28,195	12,525	30,221	13,520
Ohio.....	3,506	1,543	3,064	1,349	3,401	1,495
Indiana.....	1,540	663	1,396	597	1,434	608
Illinois.....	3,583	1,589	3,162	1,408	3,500	1,538
Michigan.....	986	438	831	354	966	428
Minnesota.....	7,004	3,166	6,210	2,777	6,128	2,798
Iowa.....	(D)	(D)	(D)	(D)	(D)	(D)
Missouri.....	3,812	1,720	3,358	1,515	2,302	4,989
Nebraska.....	(D)	(D)	(D)	(D)	(D)	(D)
Kansas.....	6,890	3,114	6,302	2,842	6,454	2,919
South Atlantic.....	3,979	1,742	3,083	1,341	3,306	1,431
East South Central.....	2,882	1,267	2,564	1,122	2,558	1,121
Tennessee.....	2,250	994	1,980	869	1,968	868
West South Central.....	3,638	1,642	3,283	1,480	3,199	1,436
Oklahoma.....	1,407	651	1,213	560	1,244	573
Texas.....	1,642	728	1,525	682	1,386	611
Mountain.....	3,170	1,458	3,661	1,678	3,171	1,441
Montana.....	759	353	643	298	770	358
Utah.....	(D)	(D)	(D)	(D)	(D)	(D)
Pacific.....	5,706	2,441	4,355	1,929	5,319	2,433
Washington.....	1,694	764	1,276	575	1,572	699
Oregon.....	734	330	685	309	818	382
California and Hawaii.....	3,278	1,347	2,394	1,045	2,929	1,352

Note: Detail may not add to total due to independent rounding.

(D) Withheld to avoid disclosure of figures for individual companies.

Table 4. EXPORTS OF WHEAT AND WHEAT FLOUR

Country to which exported	September 1979	August 1979	9 months through September 1979
WHEAT FLOUR, EXCEPT MEAL AND GROATS, FOR RELIEF OR CHARITY (1314010, AND 1314030) (1,000 cwt.)			
Total.....	119	303	1,831
Egypt.....	-	-	380
Guatemala.....	8	-	41
Colombia.....	-	-	-
Ecuador.....	-	-	4
Brazil.....	-	-	2
Israel.....	4	3	89
India.....	-	36	107
Chile.....	-	-	106
Sri Lanka (Ceylon).....	-	55	107
Philippine Republic.....	5	77	268
Morocco.....	52	74	193
Other.....	50	58	534
WHEAT FLOUR, WHOLLY U.S. WHEAT, EXCEPT DURUM FLOUR AND SEMOLINA (1314040 1314020) NOT DONATED FOR RELIEF OR CHARITY (1,000 cwt.)			
Total.....	2,218	2,489	14,254
Nicaragua.....	1	2	11
Jamaica.....	37	41	291
Brazil.....	-	-	32
Iceland.....	1	3	37
Jordan.....	-	3	27
Saudi Arabia.....	418	212	2,276
Sri Lanka (Ceylon).....	260	859	1,681
Egypt.....	1,179	1,076	7,674
Philippine Republic.....	-	-	1
Korean Republic.....	-	-	-
Morocco.....	-	-	-
Other.....	322	293	2,224
WHEAT, INCLUDING SPELT OR MESLIN, UNMILLED, NOT DONATED FOR RELIEF OR CHARITY (1306540) (1,000 bu.)			
Total.....	129,617	117,787	849,685
U.S.S.R.....	22,035	20,207	131,502
Venezuela.....	4,084	1,338	19,492
Peru.....	3,777	1,910	10,627
Brazil.....	8,864	6,065	44,803
Portugal.....	3,746	2,260	16,273
Iran.....	2,352	1,943	22,445
Indonesia.....	1,883	2,039	15,815
Korean Republic.....	1,975	11,443	47,839
China (Taiwan).....	3,518	827	19,799
Japan.....	12,513	10,583	93,593
Egypt.....	-	-	36,937
Nigeria.....	2,144	2,973	24,549
Other.....	62,726	56,199	366,011

Note: Data in this table are taken from Foreign Trade publication FT-410, U.S. Exports. The Schedule B codes are shown above.

- Represents zero.

Table 5. PRODUCTION, EXPORTS, IMPORTS, AND APPARENT CONSUMPTION OF WHEAT PRODUCTION: SEPTEMBER 1979

(Quantity in 1,000 cwt.; value in thousands of dollars)

Product	Manufacturer's shipments		Export of domestic merchandise ¹		Percent exports to manufacturers' shipments		Imports for consumption ²		Calculated import duty
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value ³	
Wheat flour.....	23,258	(NA)	2,337	27,925	10.1	(NA)	-	-	-

Comparison of Standard Industrial Classification codes, Schedule B export numbers, and TSUSA import numbers is as follows:

Domestic output	Exports	Imports
20411	131.4010-131.4040	-

-Represents zero. (NA) Not available.

¹Source: Bureau of the Census Report FT-410, U.S. Exports, Commodity by Country.

²Source: Bureau of the Census Report IM-146, Imports for Consumption.

³This dollar value represents the c.i.f. (cost, insurance, and freight) value at first port of entry in the United States plus U.S. import duties.

DESCRIPTION OF SURVEY

Scope of Survey—This survey covers firms engaged in the production of wheat and rye flour.

Sampling Description—The data shown in this publication were collected on Bureau of the Census monthly Form M20A, **Flour Milling Products**. The aggregates published in this report have been compiled from a sample of approximately 250 respondents, accounting for 98 percent of the total U.S. production of flour mill products. The universe for this sample was the 1958 Census of Manufactures. The reporting panel consists of mills with a daily capacity of over 400 sacks of flour. Approximately 200 small establishments are in the nonmail universe. Their production data are estimated based upon their 1958 Census of Manufactures report. The monthly reporting panel was selected by arraying the reporting units in descending order by size for each product line, then choosing a sufficient number of respondents (beginning with the largest) to yield a coverage of approximately 98 percent for each product line.

Survey Error—The figures for the current month include estimates for respondents in the reporting panel whose reports were not received in time for tabulation, as well as for 200 small respondents excluded from the mail panel. Missing figures for companies in the reporting panel are "imputed" from the month-to-month movements shown by reporting firms. The overall imputation rate is generally limited to 12 percent, including about 2 percent for small respondents excluded from the monthly reporting panel. Individual items with imputation rates greater than 12 percent are footnoted.

The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse, both because the actual monthly movements for nonrespondents may or may not closely agree with the imputed movements and because the estimates for nonpanel cases may or may not reflect their current activity. The probable difference between the actual and imputed figures is unknown. The degree of uncertainty regarding the accuracy of the data, however, increases as the percentage of imputation increases. Figures with imputation rates above 12 percent, particularly, should be used with caution.

Revision to Previous Period Data—Statistics for previous months may be revised due to receipt of corrected data from respondents, including late reports for which imputations were previously made as described above, and other corrections. Figures which have been revised by more than 5 percent from previously published figures are indicated by footnotes.

Reporting Period Adjustment—Since January 1975, the data have been adjusted for the number of working days in the reporting period in order to compensate for differences in individual company reporting patterns, i.e., calendar month, 4-week, 5-week periods.

Seasonal Adjustment—This report presents seasonally adjusted data in table 1A for selected series shown in table 1B. The data were seasonally adjusted using the X-11 variant of the Bureau of the Census Method II seasonal adjustment program. This seasonal adjustment program is a ratio-to-moving average method. The seasonal adjustment program largely eliminates the effect of seasonal variations (intra-year variations repeated constantly from year to year) within the series. The seasonally adjusted data usually provide a better measure than the not seasonally adjusted (original) data of the month-to-month variations which are due to factors other than seasonal pattern.

EXPLANATION OF TERMS

Units of Quantity—Grain ground is measured in bushels of 60 pounds for wheat, and 56 pounds for rye. Flour production is measured in sacks of 100 pounds.

Capacity—Based on replies to the question, "What is the maximum quantity of flour that can be produced in your mill in one day if operated for 24 hours?", the capacity of idle mills is included until the mills are reported to be destroyed, dismantled, or abandoned.

Grain—Represents the purchased weight of grain ground, including the weight of foreign material (dockage).

Millfeed—Includes bran, middlings, shorts, and other milling by products intended principally for use as feed materials.

Wheat Flour—Includes whole wheat flour, farina, industrial flour, and durum flour.

Stocks of Flour (quarterly)—Represents mill stocks in all positions, sold and unsold.

COMPARISON OF EXPORT, IMPORT, AND DOMESTIC OUTPUT DATA

The Standard Industrial Classification (SIC) system used for domestic output and the statistical export and import commodity classifications were developed independently and are based on somewhat differing systems of classification. This results in considerable difficulty in comparing the three types of data for many commodity areas. The domestic output classification is based on type of industry; whereas, the export and import classification system is more materials oriented. Aside from the differences in the basic commodity classifications, there are additional problems involving import data, since there are a substantial number of imported commodities which are not produced in the United States or which are produced only in very small quantities and which, therefore, have no com-

parable domestic output classification. The relationships shown in this report should be considered only as approximations, since, in addition to those mentioned above, there are also the following problems affecting the comparability of the three sets of data:

a. *Valuation*—There are different methods of valuation for the three types of data.

Domestic Output—Valued at the point of production. It includes the net sales price, f.o.b. plant, after discounts and allowances, exclusive of freight charges and excise taxes.

Exports—Valued at the point of exportation. It includes the selling price, or cost if not sold, and inland freight, insurance, and other charges to the export point.

Imports—Valued at the first port of entry in the United States. It includes c. i. f. (cost, insurance, and freight), duty, and other charges to the import point.

b. *Duplication in Quantity and Value of Output*—Because producers' shipments of some commodities may be used as materials for incorporation into other commodities, combinations of data for such commodities may contain a certain amount of duplication. Thus, percentages of exports to output or imports to apparent consumption (output plus imports minus exports) at four-digit or broader levels may be understated. Where duplication is known to be substantial, the output data are appropriately noted in the table.

c. *Low-Valued Export and Import Transactions*—Commodity information is not shown for individual imports valued under \$251. For exports, commodity information is not reported for shipments individually valued under \$251 effective October 1969 and for shipments valued under \$100 prior to October 1969. This is believed to have only negligible effect on the statistics for most commodities.

d. *Manufacturers' Shipments, Not Specified by Kind*—The value of manufacturers' shipments at the four-digit industry level often includes a small amount which is not distributed among the individual five-digit product classes. Export and import percentages at the more detailed levels might, therefore, be slightly overstated.

e. *Time Lag Between Output and Exports*—There will be a lag between the time a commodity is produced or shipped by the producer and the time it is actually exported, especially when intermediaries (wholesalers, exporters, etc.) are involved. Ordinarily, this type of discrepancy is insignificant in annual figures.

f. *"Direct" vs "Total" Commodity Export and Imports*—Export and import data do not include materials which are

incorporated into other more finished products and exported or imported in finished form. Thus, by showing only direct exports and imports, the relation of exports to output and imports to apparent consumption for intermediate products is considerably understated.

g. *Used Commodities*—With a few exceptions, used or rebuilt commodities are classified in the same import or export codes as is new merchandise. Percentages are thus overstated to the extent that used or rebuilt products are significant in trade.

RELATED REPORTS

An annual Current Industrial Report is published in this series. The annual report summarizes monthly figures and incorporates all known revisions in the series for both current and previous year, thus, providing a single reference copy to replace the monthly publications. This annual summary provides additional information on the history of this survey.

The Bureau of the Census also publishes reports on related products as follows:

Series	Frequency	Title
<i>Current Industrial Reports</i>		
M3-1	Monthly	Manufacturers' Shipments, Inventories, and Orders
M20C	Monthly	Confectionery, Including Chocolate Products
<i>Foreign Trade Reports</i>		
FT-410	Monthly	U.S. Exports—Schedule B—Commodity by Country
FT-135	Monthly	U.S. General Imports—Schedule A—Commodity by Country

CONTACTS FOR DATA USERS

Subject Area	Contact	Phone Number
Current Industrial Report M20A	Bob Rivera	(301) 763-2553
Foreign Trade publications	Juanita Noone	(301) 763-5140
To order a Census Bureau publication	Daisy Williams	(301) 763-7472
To order Census Bureau microfiche	Maria Brown	(301) 763-5511

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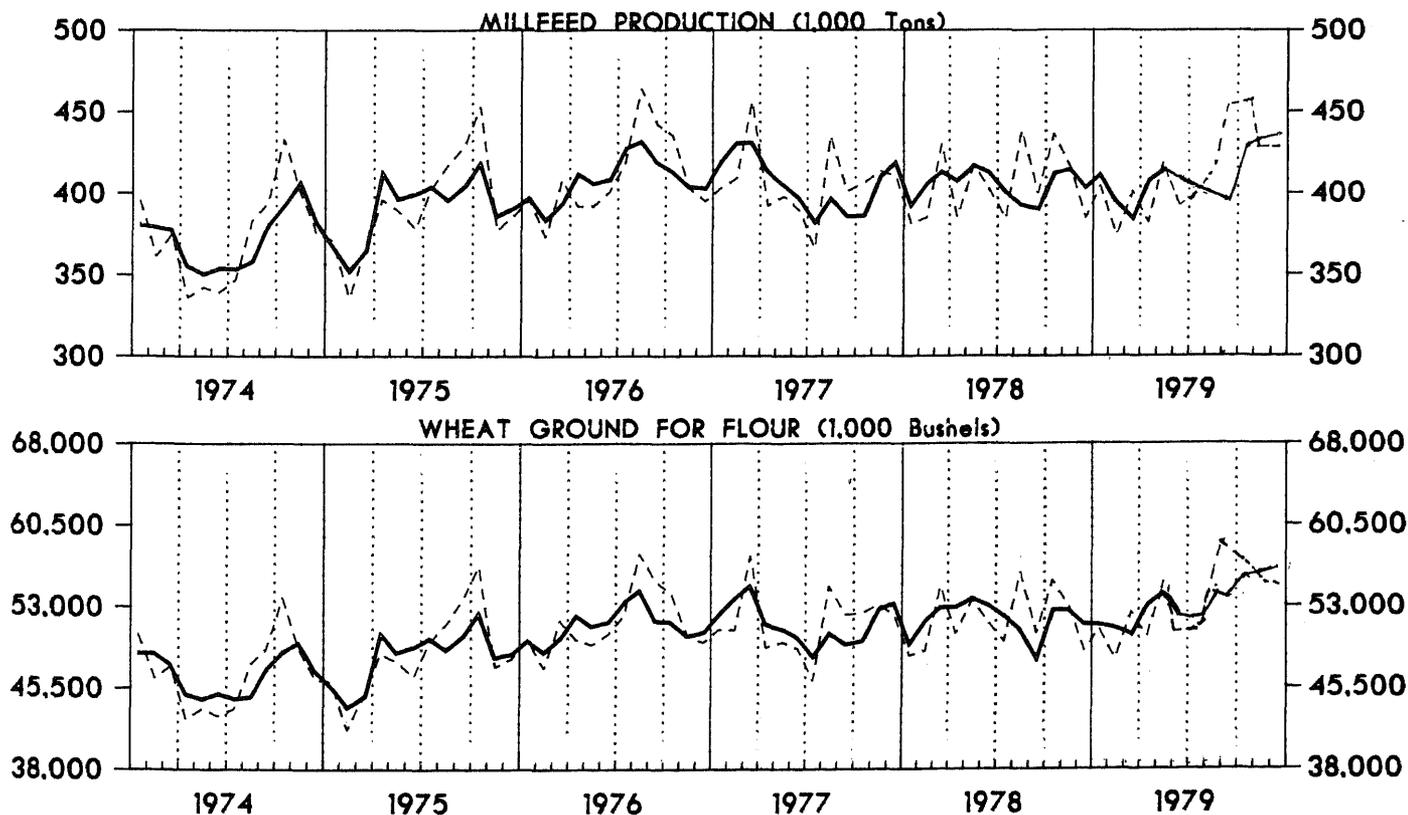
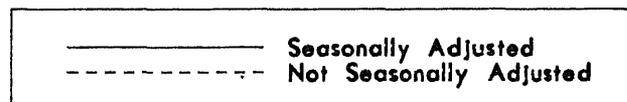
M20A(79)-11
Issued January 1980

The statistics in this publication are based on a survey of manufacturers and represent total U.S. production of flour milling products. Estimates are included for companies whose

reports were not received in time for tabulation. A more complete description of this survey appears on page 7.

THIS REPORT INCLUDES DATA COMPARING DOMESTIC OUTPUT, EXPORTS, AND IMPORTS

WHEAT FLOUR MILLING: 1974 TO 1979



Address inquiries concerning these figures to U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233, or call Bob Rivera, (301) 763-2553.

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Table 1A. SUMMARY OF WHEAT FLOUR MILLING, SEASONALLY ADJUSTED: 1977 TO 1979

Month and year	Wheat flour production average per working day ¹ (1,000 cwt.)	Millfeed production (1,000 tons)	Wheat ground for flour (1,000 bushels)
1979			
November.....	1,163	439	55,887
October.....	1,107	430	55,082
September.....	1,109	394	51,587
August.....	1,155	417	54,312
July.....	1,169	417	54,274
June.....	1,123	408	52,118
May.....	1,135	415	54,440
April.....	1,084	408	53,142
March.....	1,095	385	50,453
February.....	1,084	395	51,051
January.....	1,080	412	51,348
1978			
December.....	1,086	404	51,457
November.....	1,093	415	52,728
October.....	1,084	412	52,742
September.....	1,043	390	46,147
August.....	1,087	393	50,886
July.....	^r 1,124	401	52,176
June.....	1,124	413	53,196
May.....	1,111	417	53,821
April.....	1,108	408	53,000
March.....	1,122	413	53,010
February.....	1,096	406	51,788
January.....	^r 1,065	393	49,714
1977			
December.....	1,072	419	53,399
November.....	1,089	410	52,846

^r Revised.

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Thanksgiving Day, and December 25.

Table 1B. SUMMARY OF WHEAT FLOUR MILLING, NOT SEASONALLY ADJUSTED: 1977 TO 1979

Month and year	Wheat flour production (1,000 cwt.)		Millfeed production (tons)	Wheat ground for flour (1,000 bushels)	Wheat flour mill stocks ² (1,000 cwt.)	Daily 24-hour capacity in wheat flour ² (1,000 cwt.)	Wheat flour produced as percent of capacity	Flour extraction rate ³ (percent)
	Average per working day ¹	Calendar month total						
1979								
November.....	1,180	24,782	435,862	55,552	(NA)	1,050	112.4	74.4
October.....	1,136	26,137	458,795	58,772	(NA)	1,050	108.2	74.1
September.....	1,225	23,280	407,341	52,258	3,813	1,050	116.7	74.3
August.....	1,145	26,334	456,627	58,874	(NA)	1,050	109.1	74.6
July.....	1,119	23,508	403,133	51,995	(NA)	1,050	106.6	75.4
June.....	1,073	22,536	391,196	50,138	3,895	1,050	102.2	74.9
May.....	1,117	24,573	421,726	55,093	(NA)	1,057	105.7	74.3
April.....	1,061	22,291	382,444	50,205	(NA)	1,057	100.4	74.1
March.....	1,066	23,454	401,433	52,454	3,477	1,057	100.9	74.5
February.....	1,077	21,542	373,702	48,163	(NA)	1,058	101.8	74.5
January.....	1,037	22,817	403,584	50,886	(NA)	1,058	98.0	74.7
1978								
December.....	1,097	21,942	384,942	48,913	3,214	1,058	103.7	74.8
November.....	1,130	23,738	416,152	52,934	(NA)	1,066	106.0	74.7
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September.....	1,123	22,456	400,263	50,531	3,342	1,066	105.3	73.9
August.....	1,089	25,053	438,773	56,062	(NA)	1,045	104.2	74.4
July.....	1,117	22,335	384,090	49,749	(NA)	1,045	106.9	74.8
June.....	1,047	23,051	401,878	51,544	3,549	1,045	100.3	74.5
May.....	1,094	24,078	417,032	53,601	(NA)	1,039	105.3	74.5
April.....	1,127	22,554	385,227	50,478	(NA)	1,039	108.5	74.5
March.....	1,057	24,330	430,260	54,821	4,096	1,039	101.8	73.8
February.....	1,086	21,783	385,269	48,910	(NA)	1,077	100.9	74.2
January.....	1,037	21,787	380,717	48,430	(NA)	1,077	92.0	74.9
1977								
December.....	1,062	23,363	410,169	52,106	4,160	1,077	98.6	74.7
November.....	1,133	23,785	412,818	53,159	(NA)	1,104	102.6	74.6

(NA) Not available.

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and December 25. ²Collected quarterly. ³Wheat flour production as compared with amount of wheat ground.

Table 2. QUANTITY OF DURUM WHEAT AND RYE FLOUR PRODUCTION, GRAIN CONSUMPTION MILL STOCKS, AND CAPACITY

Product code	Description of item	Unit of measure	November 1979	October 1979	November 1978
	Durum wheat (included in table 1 data):				
00111 73	Durum wheat ground.....	M bu.....	3,132	3,435	3,619
20411 53	Straight semolina durum flour.....	M cwt.....	1,385	1,500	1,608
20411 55	Blended semolina durum flour.....	..do.....	(D)	(D)	(D)
	Rye:				
00119 51	Rye ground for flour.....	M bu.....	284	332	366
20416 11	Rye flour production.....	M cwt.....	129	149	159
20416 18	Rye millfeed production.....	Tons.....	1,374	1,613	2,183
20416 11	Rye flour stocks ¹	M cwt.....	(NA)	(NA)	(NA)
	24 hour capacity.....	..do.....	11	11	10

Note: Data include estimates for small mills. Detail may not add to total due to independent rounding. These data exclude all flour blended by macaroni and spaghetti manufacturers, etc., as such activities are not within scope of this survey. Only mills engaged in milling flour or meal are included in this survey.

(D) Withheld to avoid disclosure of figures for individual companies. (NA) Not available.

¹Collected quarterly.

Table 3. QUANTITY OF WHEAT GROUND FOR FLOUR AND WHEAT FLOUR PRODUCTION, BY DIVISION AND STATES

(Wheat ground for flour in thousands of bushels; wheat production in thousands of hundredweight)

Geographic area	November 1979		October 1979		November 1979	
	Wheat ground for flour	Wheat flour production	Wheat ground for flour	Wheat flour production	Wheat ground for flour	Wheat flour production
United States, total.....	55,552	24,782	58,772	26,137	52,934	23,738
Middle Atlantic.....	7,586	3,337	7,902	3,549	7,472	3,367
New York.....	5,867	2,572	6,397	2,878	5,932	2,678
North Central.....	29,141	13,054	31,506	14,044	27,966	12,560
Ohio.....	3,208	1,411	3,506	1,543	2,878	1,269
Indiana.....	1,097	476	1,540	663	1,331	572
Illinois.....	3,335	1,472	3,583	1,589	3,050	1,347
Michigan.....	887	396	980	436	867	383
Minnesota.....	6,484	2,930	7,004	3,166	6,180	2,813
Iowa.....	(D)	(D)	(D)	(D)	(D)	(D)
Missouri.....	3,571	1,623	3,812	1,720	4,599	2,073
Nebraska.....	(D)	(D)	(D)	(D)	(D)	(D)
Kansas.....	6,705	3,014	6,890	3,114	5,797	2,640
South Atlantic.....	4,022	1,775	3,979	1,742	3,525	1,542
East South Central.....	2,610	1,144	2,882	1,267	2,408	1,054
Tennessee.....	2,005	880	2,250	994	1,852	817
West South Central.....	3,983	1,796	3,638	1,642	3,404	1,521
Oklahoma.....	1,618	751	1,407	651	1,241	569
Texas.....	1,742	767	1,642	728	1,609	708
Mountain.....	3,054	1,412	3,170	1,458	3,051	1,390
Montana.....	795	373	759	353	826	382
Utah.....	(D)	(D)	(D)	(D)	(D)	(D)
Pacific.....	5,156	2,264	5,695	2,435	5,108	2,304
Washington.....	1,568	707	1,694	764	1,475	661
Oregon.....	673	300	737	326	771	351
California and Hawaii.....	2,915	1,257	3,264	1,345	2,862	1,292

Note: Detail may not add to total due to independent rounding.

(D) Withheld to avoid disclosure of figures for individual companies.

Table 4. EXPORTS OF WHEAT AND WHEAT FLOUR

Country to which exported	October 1979	September 1979	10 months through October 1979
WHEAT FLOUR, EXCEPT MEAL AND GROATS, FOR RELIEF OR CHARITY (1314010 AND 1314030) (1,000 cwt.)			
Total.....	160	119	1,992
Egypt.....	-	-	380
Guatemala.....	-	8	41
Colombia.....	-	-	-
Ecuador.....	-	-	4
Brazil.....	-	-	2
Israel.....	28	4	117
India.....	18	-	125
Chile.....	15	-	122
Sri Lanka (Ceylon).....	-	-	107
Philippine Republic.....	1	5	269
Morocco.....	43	52	237
Other.....	55	50	588
WHEAT FLOUR, WHOLLY U.S. WHEAT, NOT DONATED FOR RELIEF OR CHARITY (1314020 AND 1314040) (1,000 cwt.)			
Total.....	1,223	2,218	15,478
Nicaragua.....	1	1	12
Jamaica.....	30	37	321
Brazil.....	6	-	38
Iceland.....	5	1	18
Jordan.....	-	-	27
Saudi Arabia.....	524	418	2,800
Sri Lanka (Ceylon).....	-	260	1,682
Egypt.....	289	1,179	7,964
Philippine Republic.....	-	-	1
Korean Republic.....	-	-	-
Morocco.....	-	-	-
Other.....	368	322	2,615
WHEAT, INCLUDING SPELT OR MESLIN, UNMILLED, NOT DONATED FOR RELIEF OR CHARITY (1306540) (1,000 bu.)			
Total.....	149,040	129,617	998,726
U.S.S.R.....	28,251	22,035	159,753
Venezuela.....	1,799	4,084	21,291
Peru.....	1,885	3,777	12,512
Brazil.....	3,832	8,864	48,635
Portugal.....	1,289	3,746	17,562
Iran.....	-	2,352	22,445
Indonesia.....	2,822	1,883	18,637
Korean Republic.....	4,560	1,975	52,399
China (Taiwan).....	3,256	3,518	23,055
Japan.....	9,460	12,513	103,053
Egypt.....	1,830	-	38,768
Nigeria.....	3,073	2,144	27,622
Other.....	86,983	62,726	452,994

Note: Data in this table are taken from Foreign Trade publication FT-410, U.S. Exports. The Schedule B codes are shown above.

- Represents zero.

Table 5. PRODUCTION, EXPORTS, IMPORTS, AND APPARENT CONSUMPTION OF WHEAT PRODUCTION: OCTOBER 1979

(Quantity in 1,000 cwt.; value in thousands of dollars)

Product	Manufacturers' shipments		Export of domestic merchandise ¹		Percent exports to manufacturers' shipments	
	Quantity	Value	Quantity	Value	Quantity	Value
OCTOBER 1979						
Wheat flour.....	26,137	(NA)	1,383	16,755	5.3	(NA)
SEPTEMBER 1979						
Wheat flour.....	23,280	(NA)	2,337	27,925	10.0	(NA)

Comparison of Standard Industrial Classification codes, Schedule B export numbers, and TSUSA import numbers is as follows:

<u>Domestic output</u>	<u>Exports</u>	<u>Imports</u>
20411	131.4010-131.4040	-

(NA) Not available.

¹Source: Bureau of the Census Report FT-410, U.S. Exports, Commodity by Country.

Table 6. PRODUCTION, EXPORTS, AND IMPORTS OF WHEAT FLOUR: 1978

(Quantity in 1,000 cwt.; value in \$1,000)

Product code	Item	Quantity produced	Exports of domestic merchandise ^{1 2}		Percent exports to manufacturers' production
			Quantity	Value	
20411 --	Wheat flour.....	277,950	20,102	177,439	7.2

Note: Revision to data as published in table 7 of the M20A summary for 1978. Comparison of domestic production and export codes is as follows:

<u>Domestic output</u>	<u>Exports</u>
20411 -- Wheat flour	1,314,010

¹The data as shown for exports have been revised to include Schedule B code 131.4020 which was previously excluded in error.²Source: Bureau of the Census Report FT-410, U.S. Exports of Domestic Merchandise; SIC-Based Products and Area.

DESCRIPTION OF SURVEY

Scope of Survey—This survey covers firms engaged in the production of wheat and rye flour.

Sampling Description—The data shown in this publication were collected on Bureau of the Census monthly Form M20A, Flour Milling Products. The aggregates published in this report have been compiled from a sample of approximately 250 respondents, accounting for 98 percent of the total U.S. production of flour mill products. The universe for this sample was the 1958 Census of Manufactures. The reporting panel consists of mills with a daily capacity of over 400 sacks of flour. Approximately 200 small establishments are in the nonmail universe. Their production data are estimated based upon their 1958 Census of Manufactures report. The monthly reporting panel was selected by arraying the reporting units in descending order by size for each product line, then choosing a sufficient number of respondents (beginning with the largest) to yield a coverage of approximately 98 percent for each product line.

Survey Error—The figures for the current month include estimates for respondents in the reporting panel whose reports were not received in time for tabulation, as well as for 200 small respondents excluded from the mail panel. Missing figures for companies in the reporting panel are "imputed" from the month-to-month movements shown by reporting firms. The overall imputation rate is generally limited to 12 percent, including about 2 percent for small respondents excluded from the monthly reporting panel. Individual items with imputation rates greater than 12 percent are footnoted.

The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse, both because the actual monthly movements for nonrespondents may or may not closely agree with the imputed movements and because the estimates for nonpanel cases may or may not reflect their current activity. The probable difference between the actual and imputed figures is unknown. The degree of uncertainty regarding the accuracy of the data, however, increases as the percentage of imputation increases. Figures with imputation rates above 12 percent, particularly, should be used with caution.

Revision to Previous Period Data—Statistics for previous months may be revised due to receipt of corrected data from respondents, including late reports for which imputations were previously made as described above, and other corrections. Figures which have been revised by more than 5 percent from previously published figures are indicated by footnotes.

Reporting Period Adjustment—Since January 1975, the data have been adjusted for the number of working days in the reporting period in order to compensate for differences in individual company reporting patterns, i.e., calendar month, 4-week, 5-week periods.

Seasonal Adjustment—This report presents seasonally adjusted data in table 1A for selected series shown in table 1B. The data were seasonally adjusted using the X-11 variant of the

Bureau of the Census Method II seasonal adjustment program. This seasonal adjustment program is a ratio-to-moving average method. The seasonal adjustment program largely eliminates the effect of seasonal variations (intra-year variations repeated constantly from year to year) within the series. The seasonally adjusted data usually provide a better measure than the not seasonally adjusted (original) data of the month-to-month variations which are due to factors other than seasonal pattern.

EXPLANATION OF TERMS

Units of Quantity—Grain ground is measured in bushels of 60 pounds for wheat, and 56 pounds for rye. Flour production is measured in sacks of 100 pounds.

Capacity—Based on replies to the question, "What is the maximum quantity of flour that can be produced in your mill in one day if operated for 24 hours?", the capacity of idle mills is included until the mills are reported to be destroyed, dismantled, or abandoned.

Grain—Represents the purchased weight of grain ground, including the weight of foreign material (dockage).

Millfeed—Includes bran, middlings, shorts, and other milling by products intended principally for use as feed materials.

Wheat Flour—Includes whole wheat flour, farina, industrial flour, and durum flour.

Stocks of Flour (quarterly)—Represents mill stocks in all positions, sold and unsold.

COMPARISON OF EXPORT, IMPORT, AND DOMESTIC OUTPUT DATA

The Standard Industrial Classification (SIC) system used for domestic output and the statistical export and import commodity classifications were developed independently and are based on somewhat differing systems of classification. This results in considerable difficulty in comparing the three types of data for many commodity areas. The domestic output classification is based on type of industry; whereas, the export and import classification system is more materials oriented. Aside from the differences in the basic commodity classifications, there are additional problems involving import data, since there are a substantial number of imported commodities, which are not produced in the United States or which are produced only in very small quantities and which, therefore, have no comparable domestic output classification. The relationships shown in this report should be considered only as approximations, since, in addition to those mentioned above, there are also the following problems affecting the comparability of the three sets of data:

a. *Valuation*—There are different methods of valuation for the three types of data.

Domestic Output—Valued at the point of production. It includes the net sales price, f.o.b. plant, after discounts and allowances, exclusive of freight charges and excise taxes.

Exports—Valued at the point of exportation. It includes the selling price, or cost if not sold, and inland freight, insurance, and other charges to the export point.

Imports—Valued at the first port of entry in the United States. It includes c. i. f. (cost, insurance, and freight), duty, and other charges to the import point.

b. *Duplication in Quantity and Value of Output*—Because producers' shipments of some commodities may be used as materials for incorporation into other commodities, combinations of data for such commodities may contain a certain amount of duplication. Thus, percentages of exports to output or imports to apparent consumption (output plus imports minus exports) at four-digit or broader levels may be understated. Where duplication is known to be substantial, the output data are appropriately noted in the table.

c. *Low-Valued Export and Import Transactions*—Commodity information is not shown for individual imports valued under \$251. For exports, commodity information is not reported for shipments individually valued under \$251 effective October 1969 and for shipments valued under \$100 prior to October 1969. This is believed to have only negligible effect on the statistics for most commodities.

d. *Manufacturers' Shipments, Not Specified by Kind*—The value of manufacturers' shipments at the four-digit industry level often includes a small amount which is not distributed among the individual five-digit product classes. Export and import percentages at the more detailed levels might, therefore, be slightly overstated.

e. *Time Lag Between Output and Exports*—There will be a lag between the time a commodity is produced or shipped by the producer and the time it is actually exported, especially when intermediaries (wholesalers, exporters, etc.) are involved. Ordinarily, this type of discrepancy is insignificant in annual figures.

f. *"Direct" vs "Total" Commodity Export and Imports*—Export and import data do not include materials which are incorporated into other more finished products and exported or imported in finished form. Thus, by showing only direct exports and imports, the relation of exports to output and imports to apparent consumption for intermediate products is considerably understated.

g. *Used Commodities*—With a few exceptions, used or rebuilt commodities are classified in the same import or export codes as is new merchandise. Percentages are thus overstated to the extent that used or rebuilt products are significant in trade.

RELATED REPORTS

An annual Current Industrial Report is published in this series. The annual report summarizes monthly figures and incorporates all known revisions in the series for both current and previous year, thus, providing a single reference copy to replace the monthly publications. This annual summary provides additional information on the history of this survey.

The Bureau of the Census also publishes reports on related products as follows:

Series	Frequency	Title
<i>Current Industrial Reports</i>		
M3-1	Monthly	Manufacturers' Shipments, Inventories, and Orders
M20C	Monthly	Confectionery, Including Chocolate Products
<i>Foreign Trade Reports</i>		
FT-410	Monthly	U.S. Exports—Schedule B—Commodity by Country
FT-135	Monthly	U.S. General Imports—Schedule A—Commodity by Country

CONTACTS FOR DATA USERS

Subject Area	Contact	Phone Number
Current Industrial Report M20A	Bob Rivera	(301) 763-2553
Foreign Trade publications	Juanita Noone	(301) 763-5140
To order a Census Bureau publication	Daisy Williams	(301) 763-7472
To order Census Bureau microfiche	Maria Brown	(301) 763-5511

Flour Milling Products



U.S. Department of Commerce
BUREAU OF THE CENSUS

DECEMBER 1979

M20A(79)-12
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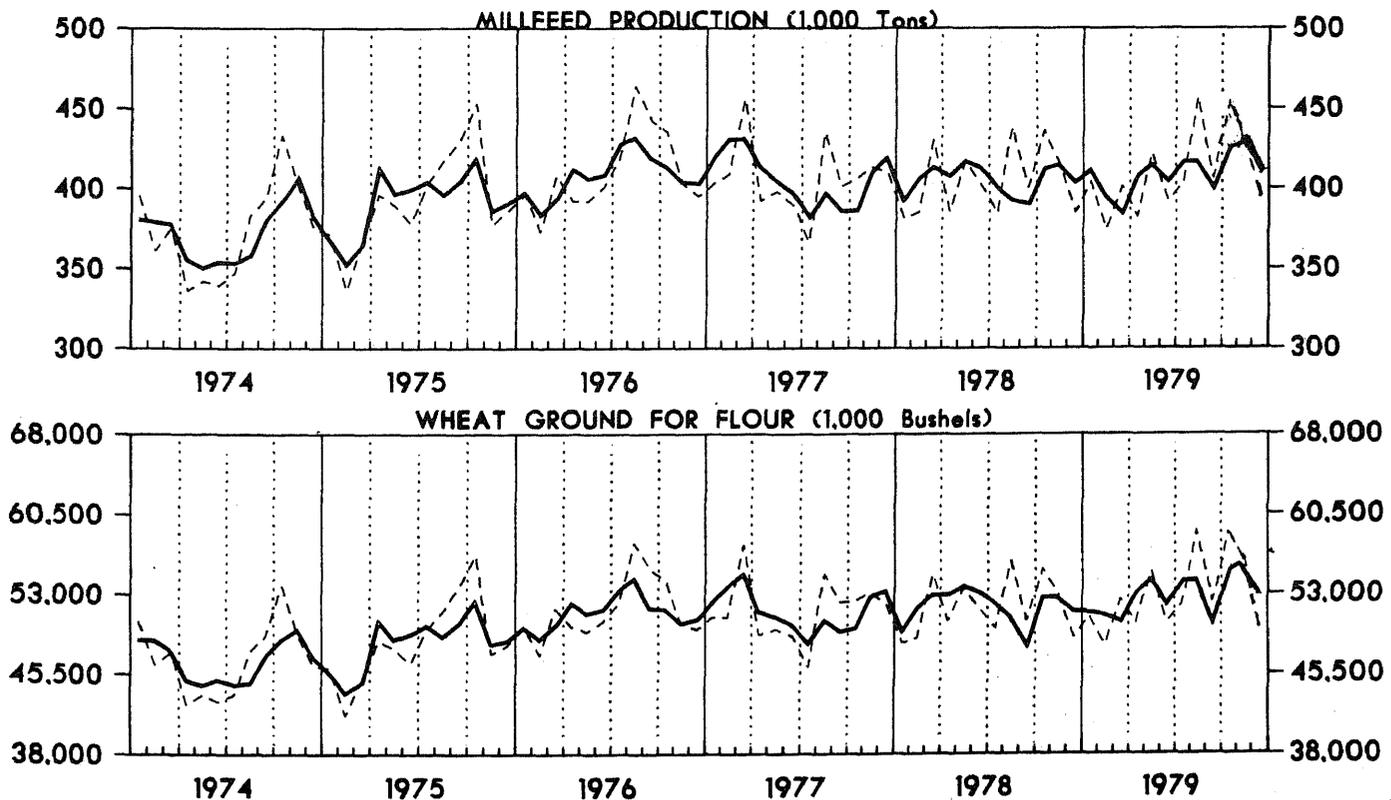
The statistics in this publication are based on a survey of manufacturers and represent total U.S. production of flour milling products. Estimates are included for companies whose

reports were not received in time for tabulation. A more complete description of this survey appears on page 7.

THIS REPORT INCLUDES DATA COMPARING DOMESTIC OUTPUT, EXPORTS, AND IMPORTS

WHEAT FLOUR MILLING: 1974 TO 1979

— Seasonally Adjusted
- - - Not Seasonally Adjusted



Address inquiries concerning these figures to U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233, or call Bob Rivera, (301) 763-5895.

For sale by the Subscriber Services Section (Publications), Bureau of the Census, Washington, D.C. 20233, or any U.S. Department of Commerce district office. Postage stamps not acceptable; currency submitted at sender's risk. Remittances from foreign countries must be by international money order or by a draft on a U.S. bank. Price 25 cents per copy, \$3.30 per year.

Table 1A. SUMMARY OF WHEAT FLOUR MILLING, SEASONALLY ADJUSTED: 1977 TO 1979

Month and year	Wheat flour production average per working day ¹ (1,000 cwt.)	Millfeed production (1,000 tons)	Wheat ground for flour (1,000 bushels)
1979			
December.....	1,114	416	53,018
November.....	1,162	439	55,922
October.....	1,107	430	55,082
September.....	1,109	394	51,587
August.....	1,155	417	54,312
July.....	1,169	417	54,274
June.....	1,123	408	52,118
May.....	1,135	415	54,440
April.....	1,084	408	53,142
March.....	1,095	385	50,453
February.....	1,084	395	51,051
January.....	1,080	412	51,348
1978			
December.....	1,086	404	51,457
November.....	1,093	415	52,728
October.....	1,084	412	52,742
September.....	1,043	390	46,147
August.....	1,087	393	50,886
July.....	1,124	401	52,176
June.....	1,124	413	53,196
May.....	1,111	417	53,821
April.....	1,108	408	53,000
March.....	1,122	413	53,010
February.....	1,096	406	51,788
January.....	1,065	393	49,714
1977			
December.....	1,072	419	53,399
November.....	1,089	410	52,846

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Thanksgiving Day, and December 25.

Table 1B. SUMMARY OF WHEAT FLOUR MILLING, NOT SEASONALLY ADJUSTED: 1977 TO 1979

Month and year	Wheat flour production (1,000 cwt.)		Millfeed production (tons)	Wheat ground for flour (1,000 bushels)	Wheat flour mill stocks ² (1,000 cwt.)	Daily 24-hour capacity in wheat flour ² (1,000 cwt.)	Wheat flour produced as percent of capacity	Flour extraction rate ³ (percent)
	Average per working day ¹	Calendar month total						
1979								
December (20 days).....	1,135	22,695	396,015	50,420	3,975	1,053	98.0	75.0
November (21 days).....	1,180	24,778	435,838	55,586	(NA)	1,050	118.0	74.3
October (23 days).....	1,136	26,137	458,795	58,772	(NA)	1,050	108.2	74.1
September (19 days).....	1,225	23,280	407,341	52,258	3,813	1,050	116.7	74.3
August (23 days).....	1,145	26,334	456,627	58,874	(NA)	1,050	109.1	74.6
July (21 days).....	1,119	23,508	403,133	51,995	(NA)	1,050	106.6	75.4
June (22 days).....	1,073	22,536	391,196	50,138	3,895	1,050	102.2	74.9
May (22 days).....	1,117	24,573	421,726	55,093	(NA)	1,057	105.7	74.3
April (21 days).....	1,061	22,291	382,444	50,205	(NA)	1,057	100.4	74.1
March (22 days).....	1,066	23,454	401,433	52,454	3,477	1,057	100.9	74.5
February (20 days).....	1,077	21,542	373,702	48,163	(NA)	1,058	101.8	74.5
January (22 days).....	1,037	22,817	403,584	50,886	(NA)	1,058	98.0	74.7
1978								
December (20 days).....	1,097	21,942	384,942	48,913	3,214	1,058	103.7	74.8
November (21 days).....	1,130	23,738	416,152	52,934	(NA)	1,066	106.0	74.7
October (22 days).....	1,129	24,843	436,433	55,348	(NA)	1,066	105.9	74.6
September (20 days).....	1,123	22,456	400,263	50,531	3,342	1,066	105.3	73.9
August (23 days).....	1,089	25,053	438,773	56,062	(NA)	1,045	104.2	74.4
July (20 days).....	1,117	22,335	384,090	49,749	(NA)	1,045	106.9	74.8
June (22 days).....	1,047	23,051	401,878	51,544	3,549	1,045	100.3	74.5
May (22 days).....	1,094	24,078	417,032	53,601	(NA)	1,039	105.3	74.5
April (20 days).....	1,127	22,554	385,227	50,478	(NA)	1,039	108.5	74.5
March (23 days).....	1,057	24,330	430,260	54,821	4,096	1,039	101.8	73.8
February (20 days).....	1,086	21,783	385,269	48,910	(NA)	1,077	100.9	74.2
January (21 days).....	1,037	21,787	380,717	48,430	(NA)	1,077	92.0	74.9
1977								
December (22 days).....	1,062	23,363	410,169	52,106	4,160	1,077	98.6	74.7

(NA) Not available.

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and December 25. ²Collected quarterly. ³Wheat flour production as compared with amount of wheat ground.

Table 2. QUANTITY OF DURUM WHEAT AND RYE FLOUR PRODUCTION, GRAIN CONSUMPTION MILL STOCKS, AND CAPACITY

Product code	Description of item	Unit of measure	December 1979	November 1979	December 1978
	Durum wheat (included in table 1 data):				
00111 73	Durum wheat ground.....	M bu.....	2,990	3,132	3,262
20411 53	Straight semolina durum flour.....	M cwt.....	1,294	1,385	1,452
20411 55	Blended semolina durum flour.....	..do.....	(D)	(D)	(D)
	Rye:				
00119 51	Rye ground for flour.....	M bu.....	267	284	349
20416 11	Rye flour production.....	M cwt.....	120	129	151
20416 18	Rye millfeed production.....	Tons.....	1,115	1,374	1,975
20416 11	Rye flour stocks ¹	M cwt.....	18	(NA)	23
	24 hour capacity.....	..do.....	10	10	10

Note: Data include estimates for small mills. Detail may not add to total due to independent rounding. These data exclude all flour blended by macaroni and spaghetti manufacturers, etc., as such activities are not within scope of this survey. Only mills engaged in milling flour or meal are included in this survey.

(D) Withheld to avoid disclosure of figures for individual companies. (NA) Not available.

¹Collected quarterly.

Table 3. QUANTITY OF WHEAT GROUND FOR FLOUR AND WHEAT FLOUR PRODUCTION, BY DIVISION AND STATE
(Wheat ground for flour in thousands of bushels; wheat production in thousands of hundredweight)

Geographic area	December 1979		November 1979		December 1978	
	Wheat ground for flour	Wheat flour production	Wheat ground for flour	Wheat flour production	Wheat ground for flour	Wheat flour production
United States, total.....	50,420	22,695	55,586	24,778	48,913	21,942
Middle Atlantic.....	7,046	3,221	7,586	3,337	7,204	3,236
New York.....	5,626	2,581	5,867	2,572	5,862	2,645
North Central.....	26,571	11,932	29,138	13,049	25,265	11,320
Ohio.....	2,726	1,203	3,205	1,406	2,674	1,173
Indiana.....	1,259	545	1,097	476	1,314	561
Illinois.....	2,822	1,252	3,335	1,472	2,673	1,198
Michigan.....	714	313	887	396	722	318
Minnesota.....	5,947	2,696	6,484	2,930	5,718	2,592
Iowa.....	(D)	(D)	(D)	(D)	(D)	(D)
Missouri.....	3,318	1,510	3,571	1,623	3,900	1,767
Nebraska.....	(D)	(D)	(D)	(D)	(D)	(D)
Kansas.....	6,458	2,926	6,705	3,014	5,436	2,475
South Atlantic.....	3,351	1,468	4,028	1,763	3,201	1,408
East South Central.....	2,447	1,074	2,610	1,144	2,415	1,053
Tennessee.....	1,837	811	2,005	880	1,846	813
West South Central.....	3,643	1,642	4,014	1,809	3,368	1,448
Oklahoma.....	1,476	685	1,618	751	1,258	579
Texas.....	1,601	706	1,773	780	1,378	611
Mountain.....	2,720	1,256	3,054	1,412	2,797	1,243
Montana.....	674	315	795	373	721	326
Utah.....	(D)	(D)	(D)	(D)	(D)	(D)
Pacific.....	4,642	2,102	5,156	2,264	4,663	2,234
Washington.....	1,378	624	1,568	707	1,303	591
Oregon.....	641	293	673	300	738	337
California and Hawaii.....	2,623	1,185	2,915	1,257	2,622	1,306

Note: Detail may not add to total due to independent rounding.

(D) Withheld to avoid disclosure of figures for individual companies.

Table 4. EXPORTS OF WHEAT AND WHEAT FLOUR

Country to which exported	November 1979	October 1979	11 months through November 1979
WHEAT FLOUR, EXCEPT MEAL AND GROATS, FOR RELIEF OR CHARITY (1314010 AND 1314030) (1,000 cwt.)			
Total.....	284	160	2,275
Egypt.....	37	-	417
Guatemala.....	-	-	41
Colombia.....	-	-	-
Ecuador.....	-	-	4
Brazil.....	-	-	2
Israel.....	6	28	123
India.....	18	18	143
Chile.....	4	15	125
Sri Lanka (Ceylon).....	34	-	141
Philippine Republic.....	33	1	302
Morocco.....	60	43	297
Other.....	92	55	680
WHEAT FLOUR, WHOLLY U.S. WHEAT, NOT DONATED FOR RELIEF OR CHARITY (1314020 AND 1314040) (1,000 cwt.)			
Total.....	843	1,223	16,320
Nicaragua.....	-	1	12
Jamaica.....	19	30	23
Brazil.....	-	6	38
Iceland.....	1	5	44
Jordan.....	-	-	28
Saudi Arabia.....	464	524	3,263
Sri Lanka (Ceylon).....	-	-	1,681
Egypt.....	242	289	8,205
Philippine Republic.....	26	-	27
Korean Republic.....	-	-	-
Morocco.....	-	-	-
Other.....	91	368	2,999
WHEAT, INCLUDING SPELT OR MESLIN, UNMILLED, NOT DONATED FOR RELIEF OR CHARITY (1306540) (1,000 bu.)			
Total.....	108,882	149,040	1,107,607
U.S.S.R.....	12,851	28,251	172,603
Venezuela.....	2,656	1,799	23,947
Peru.....	1,993	1,885	14,505
Brazil.....	3,807	3,832	52,442
Portugal.....	-	1,289	17,562
Iran.....	-	-	22,445
Indonesia.....	1,519	2,822	20,156
Korean Republic.....	5,658	4,560	5,806
China (Taiwan).....	2,204	3,256	25,259
Japan.....	9,018	9,460	112,071
Egypt.....	3,881	1,830	42,649
Nigeria.....	3,389	3,073	31,011
Other.....	61,906	86,983	567,151

Note: Data in this table are taken from Foreign Trade publication FT-410, U.S. Exports. The Schedule B codes are shown above.

- Represents zero.

Table 5. PRODUCTION, EXPORTS, IMPORTS, AND APPARENT CONSUMPTION OF WHEAT PRODUCTION: OCTOBER 1979

(Quantity in 1,000 cwt.; value in thousands of dollars)

Product	Manufacturers' shipments		Export of domestic merchandise ¹		Percent exports to manufacturers' shipments	
	Quantity	Value	Quantity	Value	Quantity	Value
NOVEMBER 1979						
Wheat flour.....	22,695	(NA)	1,027	13,485	4.5	(NA)
OCTOBER 1979						
Wheat flour.....	24,778	(NA)	1,383	16,755	5.6	(NA)

Comparison of Standard Industrial Classification codes, Schedule B export numbers, and TSUSA import numbers is as follows:

<u>Domestic output</u>	<u>Exports</u>	<u>Imports</u>
20411	131.4010-131.4040	-

(NA) Not available.

¹Source: Bureau of the Census Report FT-410, U.S. Exports, Commodity by Country.

DESCRIPTION OF SURVEY

Scope of Survey—This survey covers firms engaged in the production of wheat and rye flour.

Sampling Description—The data shown in this publication were collected on Bureau of the Census monthly Form M20A, **Flour Milling Products**. The aggregates published in this report have been compiled from a sample of approximately 250 respondents, accounting for 98 percent of the total U.S. production of flour mill products. The universe for this sample was the 1958 Census of Manufactures. The reporting panel consists of mills with a daily capacity of over 400 sacks of flour. Approximately 200 small establishments are in the nonmail universe. Their production data are estimated based upon their 1958 Census of Manufactures report. The monthly reporting panel was selected by arraying the reporting units in descending order by size for each product line, then choosing a sufficient number of respondents (beginning with the largest) to yield a coverage of approximately 98 percent for each product line.

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Bureau of the Census Method II seasonal adjustment program. This seasonal adjustment program is a ratio-to-moving average method. The seasonal adjustment program largely eliminates the effect of seasonal variations (intra-year variations repeated constantly from year to year) within the series. The seasonally adjusted data usually provide a better measure than the not seasonally adjusted (original) data of the month-to-month variations which are due to factors other than seasonal pattern.

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Wheat Flour—Includes whole wheat flour, farina, industrial flour, and durum flour.

Stocks of Flour (quarterly)—Represents mill stocks in all positions, sold and unsold.

COMPARISON OF EXPORT, IMPORT, AND DOMESTIC OUTPUT DATA

The Standard Industrial Classification (SIC) system used for domestic output and the statistical export and import commodity classifications were developed independently and are based on somewhat differing systems of classification. This results in considerable difficulty in comparing the three types of data for many commodity areas. The domestic output classification is based on type of industry; whereas, the export and import classification system is more materials oriented. Aside from the differences in the basic commodity classifications, there are additional problems involving import data, since there are a substantial number of imported commodities, which are not produced in the United States or which are produced only in very small quantities and which, therefore, have no comparable domestic output classification. The relationships shown in this report should be considered only as approximations, since, in addition to those mentioned above, there are also the following problems affecting the comparability of the three sets of data:

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d. *Manufacturers' Shipments, Not Specified by Kind*—The value of manufacturers' shipments at the four-digit industry level often includes a small amount which is not distributed among the individual five-digit product classes. Export and import percentages at the more detailed levels might, therefore, be slightly overstated.

e. *Time Lag Between Output and Exports*—There will be a lag between the time a commodity is produced or shipped by the producer and the time it is actually exported, especially when intermediaries (wholesalers, exporters, etc.) are involved. Ordinarily, this type of discrepancy is insignificant in annual figures.

f. *"Direct" vs "Total" Commodity Export and Imports*—Export and import data do not include materials which are incorporated into other more finished products and exported or imported in finished form. Thus, by showing only direct exports and imports, the relation of exports to output and imports to apparent consumption for intermediate products is considerably understated.

g. *Used Commodities*—With a few exceptions, used or rebuilt commodities are classified in the same import or export codes as is new merchandise. Percentages are thus overstated to the extent that used or rebuilt products are significant in trade.

RELATED REPORTS

An annual Current Industrial Report is published in this series. The annual report summarizes monthly figures and incorporates all known revisions in the series for both current and previous year, thus, providing a single reference copy to replace the monthly publications. This annual summary provides additional information on the history of this survey.

The Bureau of the Census also publishes reports on related products as follows:

Series	Frequency	Title
<i>Current Industrial Reports</i>		
M3-1	Monthly	Manufacturers' Shipments, Inventories, and Orders
M20C	Monthly	Confectionery, Including Chocolate Products
<i>Foreign Trade Reports</i>		
FT-410	Monthly	U.S. Exports—Schedule B—Commodity by Country
FT-135	Monthly	U.S. General Imports—Schedule A—Commodity by Country

CONTACTS FOR DATA USERS

Subject Area	Contact	Phone Number
Current Industrial Report M20A	Bob Rivera	(301) 763-5895
Foreign Trade publications	Juanita Noone	(301) 763-5140
To order a Census Bureau publication	Daisy Williams	(301) 763-7472
To order Census Bureau microfiche	Maria Brown	(301) 763-5511

Flour Milling Products



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SUMMARY FOR 1979

M20A(79)-13
Issued September 1980

SUMMARY OF FINDINGS

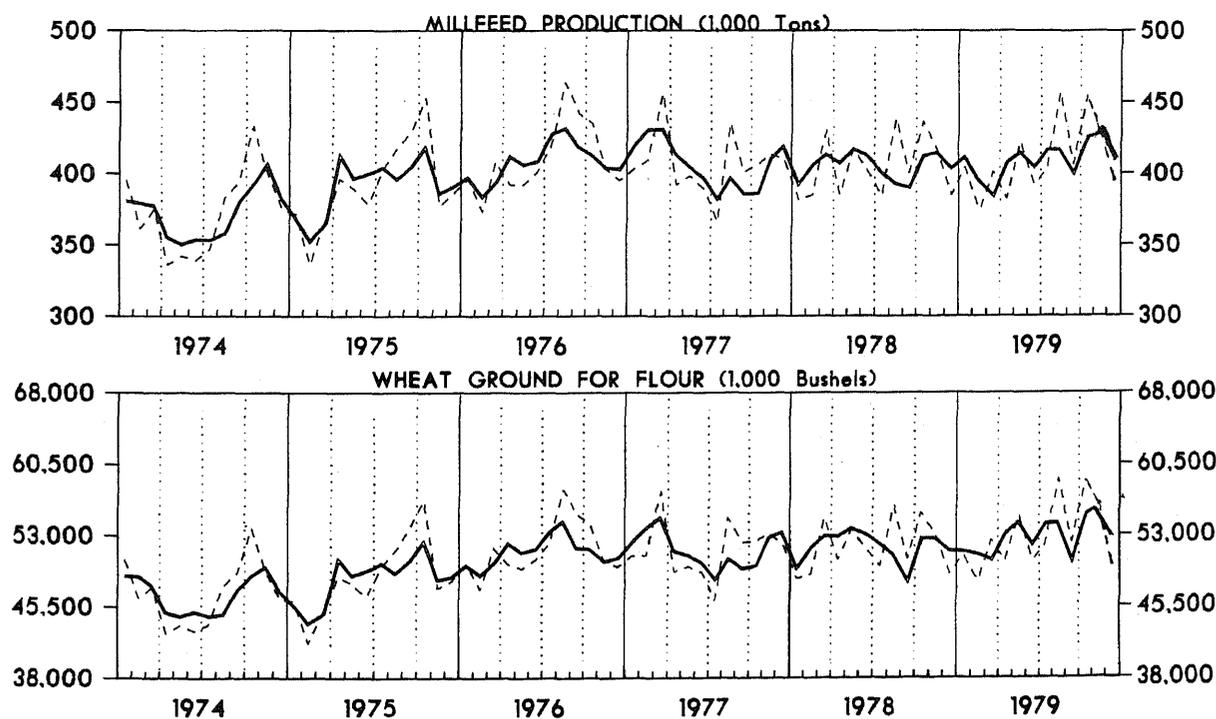
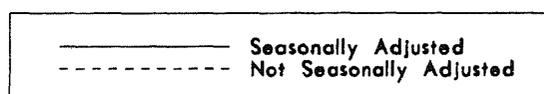
Total commercial production of wheat flour in 1979 amounted to 284 million cwt. sacks, about 6.1 million cwt. sacks above the 1978 production. Production figures in 1979 and 1978 were at 105.2 and 103.3 percent, respectively, of total annual capacity.

Wheat mills in 1979 and 1978 ground 636.4 and 621.3 million bushels of wheat; corresponding millfeed production figures for these years were 4,945 and 4,860 thousand tons.

Production of rye flour in 1979 amounted to 1,580 thousand cwt. sacks, compared with 1,624 thousand cwt. in 1978. Rye grinding in 1979 and 1978 were 3,589 and 3,673 thousand bushels, respectively.

THIS REPORT INCLUDES DATA COMPARING DOMESTIC OUTPUT, EXPORTS, AND IMPORTS

WHEAT FLOUR MILLING:
1974 TO 1979



Address inquiries concerning these figures to U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233, or call Gina M. Pagano, (301) 763-1750.

For sale by Customer Services (DUSD), Bureau of the Census, Washington, D.C. 20233, or any U.S. Department of Commerce district office. Postage stamps not acceptable; currency submitted at sender's risk. Remittances from foreign countries must be by international money order or by a draft on a U.S. bank. Price, 30 cents per copy, \$3.30 per year.

Table 1. SUMMARY: COMMERCIAL WHEAT MILLING PRODUCTION: 1970 TO 1979

Year	Wheat flour production (1,000 cwt. sacks)	Wheat ground for flour (1,000 bushels)	Millfeed production (1,000 tons)	Average pounds per cwt. sacks of flour		Flour extraction rate ¹ (percent)
				Wheat	Millfeed	
1979.....	284,051	636,375	4,945	134.4	34.8	74.4
1978.....	277,950	621,321	4,860	134.1	35.0	74.6
1977.....	275,784	618,125	4,787	134.5	34.7	74.4
1976.....	275,077	618,284	4,920	135.0	35.8	74.2
1975.....	258,985	582,675	4,701	134.9	36.3	74.1
1974.....	251,097	562,962	4,483	134.5	35.7	74.3
1973.....	254,661	567,287	4,395	133.7	34.5	74.8
1972.....	250,441	557,801	4,303	133.6	34.4	74.8
1971.....	249,810	555,092	4,279	133.3	34.3	75.0
1970.....	253,094	563,714	4,409	133.6	34.8	74.8

¹Wheat flour production as compared with the amount of wheat ground.

Table 2. COMMERCIAL WHEAT MILLING PRODUCTION, SEASONALLY ADJUSTED AND UNADJUSTED, BY MONTHS: 1979 AND 1978

Month	Seasonally adjusted			Unadjusted						
	Wheat flour production average per working day ¹ (1,000 cwt. sacks)	Wheat ground for flour (1,000 bushels)	Millfeed production (1,000 tons)	Wheat flour production (1,000 cwt. sacks)		Wheat ground for flour (1,000 bushels)	Millfeed production (1,000 tons)	Average pounds per cwt. sack of flour		Flour extraction rate ² (percent)
				Average per working day ¹	Calendar month			Wheat	Millfeed	
1979										
Total.....	(X)	(X)	(X)	(X)	284,051	636,375	4,945	134.4	34.8	74.4
January.....	1,080	51,310	409	1,037	22,822	50,999	405	134.1	35.5	74.6
February.....	1,079	51,165	395	1,077	21,547	48,271	375	134.4	34.8	74.4
March.....	1,089	50,987	388	1,066	23,459	52,571	402	134.5	34.3	74.4
April.....	1,088	52,397	405	1,062	22,296	50,319	383	135.4	34.4	73.8
May.....	1,124	53,815	413	1,117	24,578	55,216	423	134.8	34.4	74.2
June.....	1,064	52,758	408	1,025	22,541	50,250	392	133.8	34.8	74.8
July.....	1,163	54,053	419	1,120	23,513	52,111	404	133.0	34.4	75.2
August.....	1,150	54,306	420	1,145	26,340	59,006	458	134.4	34.8	74.4
September.....	1,122	52,801	412	1,226	23,285	52,375	408	135.0	35.0	74.1
October.....	1,124	55,082	427	1,137	26,143	58,904	460	135.2	35.2	74.0
November.....	1,148	55,922	429	1,180	24,783	55,710	437	134.9	35.3	74.1
December.....	1,122	53,134	424	1,137	22,744	50,643	398	133.6	35.0	74.9
1978										
Total.....	(X)	(X)	(X)	(X)	277,950	621,321	4,860	134.1	35.0	74.4
January.....	1,016	49,714	393	990	21,787	48,430	381	133.4	35.0	74.9
February.....	1,096	51,788	406	1,089	21,783	48,910	385	134.7	35.3	74.2
March.....	1,122	53,010	413	1,057	24,330	54,821	430	135.2	35.3	74.0
April.....	1,108	53,000	408	1,127	22,554	50,478	385	134.3	34.1	74.5
May.....	1,111	53,821	417	1,094	24,078	53,601	417	133.6	34.6	74.9
June.....	1,124	53,196	413	1,047	23,051	51,544	402	134.2	34.9	74.5
July.....	1,069	52,176	401	1,063	22,335	49,749	384	133.6	34.4	74.8
August.....	1,087	50,886	393	1,089	25,053	56,062	439	134.3	35.0	74.5
September.....	1,040	48,335	390	1,119	22,456	50,531	400	135.0	35.6	74.1
October.....	1,084	52,742	412	1,129	24,843	55,348	436	133.7	35.1	74.8
November.....	1,093	52,728	415	1,130	23,738	52,934	416	133.8	35.0	74.7
December.....	1,078	51,457	404	1,089	21,942	48,913	385	133.7	35.1	74.8

(X) Not applicable.

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Thanksgiving Day, and December 25.

²Wheat flour production as compared with amount of wheat ground.

Table 3. COMMERCIAL RYE MILLING PRODUCTION, BY MONTHS: 1979 AND 1978

Month	Rye flour production (1,000 cwt. sacks)	Rye ground for flour (1,000 bushels)	Millfeed production (tons)	Average pounds ground per cwt. sack of flour		Flour extraction rate ¹ (percent)
				Rye	Millfeed	
1979						
Total.....	1,580	3,589	19,363	127.2	23.8	78.6
January.....	134	325	1,937	135.8	28.9	73.6
February.....	115	274	1,652	133.4	28.7	74.9
March.....	147	340	1,958	129.5	26.6	77.2
April.....	136	288	1,594	118.6	23.4	84.3
May.....	123	278	1,510	126.6	24.6	79.0
June.....	129	299	1,785	129.8	27.7	77.0
July.....	130	293	1,639	126.2	25.2	79.2
August.....	137	306	1,544	125.1	22.5	79.9
September.....	131	303	1,642	129.5	25.1	77.2
October.....	149	332	1,613	124.8	21.7	80.1
November.....	129	284	1,374	123.3	21.3	81.1
December.....	120	267	1,115	124.6	18.6	80.3
1978						
Total.....	1,624	3,673	20,430	126.7	25.2	79.0
January.....	147	322	1,802	122.7	24.5	81.5
February.....	131	298	1,674	127.4	25.6	78.5
March.....	128	291	1,543	127.3	24.1	80.4
April.....	126	284	1,591	126.2	25.2	79.2
May.....	130	293	1,544	126.2	23.8	79.2
June.....	137	298	1,712	121.8	25.0	82.1
July.....	114	260	1,308	127.7	22.9	78.3
August.....	123	282	1,450	128.4	23.6	77.9
September.....	129	290	1,739	125.9	27.0	79.4
October.....	149	340	1,909	127.8	25.6	78.3
November.....	159	366	2,183	128.9	27.5	77.5
December.....	151	349	1,975	129.4	26.2	77.3

¹Rye flour production as compared with amount of rye ground.

Table 4. COMMERCIAL WHEAT MILLING PRODUCTION, BY GEOGRAPHIC AREAS: 1979 AND 1978

Geographic areas	1979				1978			
	Wheat ground for flour (1,000 bushels)	Wheat flour production			Wheat ground for flour (1,000 bushels)	Wheat flour production		
		Total (1,000 cwt. sacks)	Daily (24 hour) capacity ¹ (cwt. sacks)	Percent of estimated annual capacity ²		Total (1,000 cwt. sacks)	Daily (24 hour) capacity ¹ (cwt. sacks)	Percent of estimated annual capacity ²
United States.....	636,375	284,051	1,054,589	105.2	621,321	277,950	1,058,873	103.3
Middle Atlantic Division.....	85,180	38,316	151,989	98.5	83,016	37,118	149,451	97.8
New York.....	68,762	30,976	125,326	96.5	66,356	30,041	123,688	95.4
North Central Division.....	337,448	150,782	558,388	105.5	335,429	150,386	570,828	103.7
Ohio.....	35,512	15,591	58,345	104.4	33,000	14,445	57,445	99.8
Indiana.....	16,188	6,884	38,361	70.1	14,878	6,430	28,090	90.4
Illinois.....	37,205	16,418	61,034	105.1	36,638	16,180	59,482	107.9
Michigan.....	10,146	4,429	20,449	84.6	10,416	4,446	20,220	87.5
Minnesota.....	71,602	32,304	129,198	97.7	70,398	31,939	128,038	98.2
Iowa.....	(D)	(D)	(D)	(NA)	(D)	(D)	(D)	(D)
Missouri.....	42,975	19,539	67,919	112.4	54,552	24,780	86,310	113.4
Nebraska.....	(D)	(D)	(D)	(NA)	(D)	(D)	(D)	(D)
Kansas.....	79,237	35,818	120,491	116.1	76,843	34,731	123,048	111.2
South Atlantic Division.....	42,575	18,038	74,481	94.6	38,500	16,587	68,157	95.8
East South Central Division.....	31,312	13,791	49,830	108.1	30,834	13,389	49,788	105.4
Tennessee.....	24,101	10,686	38,359	108.8	23,939	10,435	37,817	108.1
West South Central Division.....	44,018	19,790	67,813	114.0	42,190	18,613	65,893	111.0
Oklahoma.....	17,863	8,244	29,113	110.6	17,146	7,889	28,345	110.9
Texas.....	19,111	8,423	26,500	124.2	18,259	7,830	26,500	114.2
Mountain Division.....	35,614	16,357	61,995	103.1	34,758	15,716	60,175	103.1
Montana.....	7,958	3,716	13,548	107.1	8,395	3,931	13,736	110.5
Utah.....	(D)	(D)	(D)	(NA)	(D)	(D)	(D)	(D)
Pacific Division.....	60,229	26,978	90,093	117.0	56,594	26,141	94,581	108.8
Washington.....	17,125	7,740	27,985	108.0	16,573	7,413	27,781	104.2
Oregon.....	9,449	4,210	18,800	87.5	9,441	4,293	19,800	85.4
California and Hawaii.....	33,655	15,028	41,108	142.8	30,580	14,435	47,000	120.9

Note: Detail may not add to total due to independent rounding.

(D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.

¹Capacity as reported for December of each year.

²Estimated annual capacity is obtained by multiplying daily capacity by the number of work days during the year: 256 for 1979 and 254 for 1978. These figures are calculated on the basis of a five day week with allowances for the following holidays: January 1, Memorial Day, July 4, Thanksgiving Day, and December 25.

Table 5. PRODUCTION AND MILL STOCKS OF WHEAT FLOUR, BY QUARTERS:
1979 AND 1978

(Figures in 1,000 cwt. sacks)

Quarter	Production	Mill stocks
1979		
First quarter.....	67,828	3,477
Second quarter.....	69,415	3,895
Third quarter.....	73,138	3,813
Fourth quarter.....	73,670	3,975
1978		
First quarter.....	67,900	4,096
Second quarter.....	69,683	3,459
Third quarter.....	69,844	3,342
Fourth quarter.....	70,523	3,214

Table 6. DURUM WHEAT PRODUCTS: 1979 AND 1978

Item	1979		1978	
	Jan. 1- June 30	July 1- Dec. 31	Jan. 1- June 30	July 1- Dec. 31
Durum wheat ground (1,000 bushels).....	19,058	19,927	17,683	19,748
Straight semolina and durum flour produced (1,000 cwt. sacks).....	8,599	8,805	7,786	8,702
Blended semolina and durum flour produced (1,000 cwt. sacks).....	(D)	(D)	(D)	(D)

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Table 7. PRODUCTION AND EXPORTS OF WHEAT FLOUR: 1979

(Quantity in 1,000 cwt.; value in \$1,000)

Product code	Item	Quantity produced	Exports of domestic merchandise ¹		Percent exports to manufacturers' production
			Quantity	Value	
20411 --	Wheat flour.....	284,051	20,927	226,861	7.4

Note: Comparison of domestic production and export codes is as follows:

<u>Domestic output</u>	<u>Export</u>
20411 -- Wheat flour	131.4010-131.4040

¹Source: Bureau of the Census Report FT-410, U.S. Exports of Domestic Merchandise; SIC-Based Products and Area.

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b. **Duplication in Quantity and Value of Output**—Because producers' shipments of some commodities may be used as materials for incorporation into other commodities, combinations of data for such commodities may contain a certain amount of duplication. Thus, percentages of exports to output or imports to apparent consumption (output plus imports minus exports) at four-digit or broader levels may be understated. Where duplication is known to be substantial, the output data are appropriately noted in the table.

c. **Low-Valued Export and Import Transactions**—Commodity information is not shown for individual imports valued under \$251. For exports, commodity information is not reported for shipments individually valued under \$501, effective March 1979 and for shipments valued under \$251 prior to March 1979. This is believed to have only negligible effect on the statistics for most commodities.

d. **Manufacturers' Shipments, Not Specified by Kind**—The value of manufacturers' shipments at the four-digit industry level often includes a small amount which is not distributed among the individual five-digit product classes. Export and import percentages at the more detailed levels might, therefore, be slightly overstated.

e. **Time Lag Between Output and Exports**—There will be a lag between the time a commodity is produced or shipped by the producer and the time it is actually exported, especially when intermediaries (wholesalers, exporters, etc.) are involved. Ordinarily, this type of discrepancy is insignificant in annual figures.

f. **"Direct" vs "Total" Commodity Exports and Imports**—Export and import data do not include materials which are incorporated into other more finished products and exported or imported in finished form. Thus, by showing only direct exports and imports, the relation of exports to output and imports to apparent consumption for intermediate products is considerably understated.

g. **Used Commodities**—With a few exceptions, used or rebuilt commodities are classified in the same import or export codes as is new merchandise. Percentages are thus overstated to the extent that used or rebuilt products are significant in trade.

h. **Geographic Area of Coverage**—Import and export data reflect the movement of merchandise into and out of the U.S. customs territory (the 50 States, the District of Columbia, and Puerto Rico). They do not include movements between the

United States and its possessions. Domestic output (shipments) data exclude Puerto Rico and other outlying areas.

HISTORICAL NOTE

The current M20A series of monthly reports with annual summaries of wheat ground and wheatmilling products originated in May 1923. Data by States have been published monthly since 1927. Beginning in 1931 and ending with the June 1947 report, monthly wheat flour production by capacity groups was published. The annual summary report during the years 1931 to 1964 also contained a table showing production by capacity groups. Past copies of this report and other Current Industrial Reports can be found in the Federal Depository Library in your area. These libraries keep Current Industrial Reports (called Facts for Industry, before 1959) permanently available.

RELATED REPORTS

A monthly report is also published in this series.

The Bureau of the Census publishes reports on other related products as follows:

Series	Frequency	Title
<i>Current Industrial Reports</i>		
M3-1	Monthly	Manufacturers' Shipments, Inventories, and Orders
M20C	Monthly	Confectionery, Including Chocolate Products
<i>Foreign Trade Reports</i>		
FT-410	Monthly	U.S. Exports—Schedule B—Commodity by Country
FT-135	Monthly	U.S. General Imports—Schedule A—Commodity by Country

CONTACTS FOR DATA USERS

Subject Area	Contact	Phone Number
Current Industrial Report M20A	Gina M. Pagano	(301) 763-1750
Foreign Trade publications	Juanita Noone	(301) 763-5140
To order a Census Bureau publication	Customer Services (DUSD)	(301) 449-1600
To order Census Bureau microfiche	Maria Brown	(301) 763-5511

ACKNOWLEDGMENTS

This report was prepared in the Industry Division under the direction of Robert J. Nealon, Chief, Current Nondurables Branch. Gina M. Pagano was directly responsible for the review of the data and preparation of the report. Roger Bugenhagen, Chief of the Division, and John R. Wikoff, Assistant Chief for Current Programs, provided overall direction and coordination to this project.

CURRENT CONSTRUCTION REPORTS

CONSTRUCTION accounts for approximately **11 percent** of the gross national product!

To assist industry representatives, research specialists, market analysts, and government officials interested in this vital segment of the Nation's economy, the Bureau of the Census issues monthly, quarterly, and annual reports on the value of new construction put in place, building permits, housing starts, housing completions, housing sales, alterations and repairs and demolition of residential structures.

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C22 - Housing Completions

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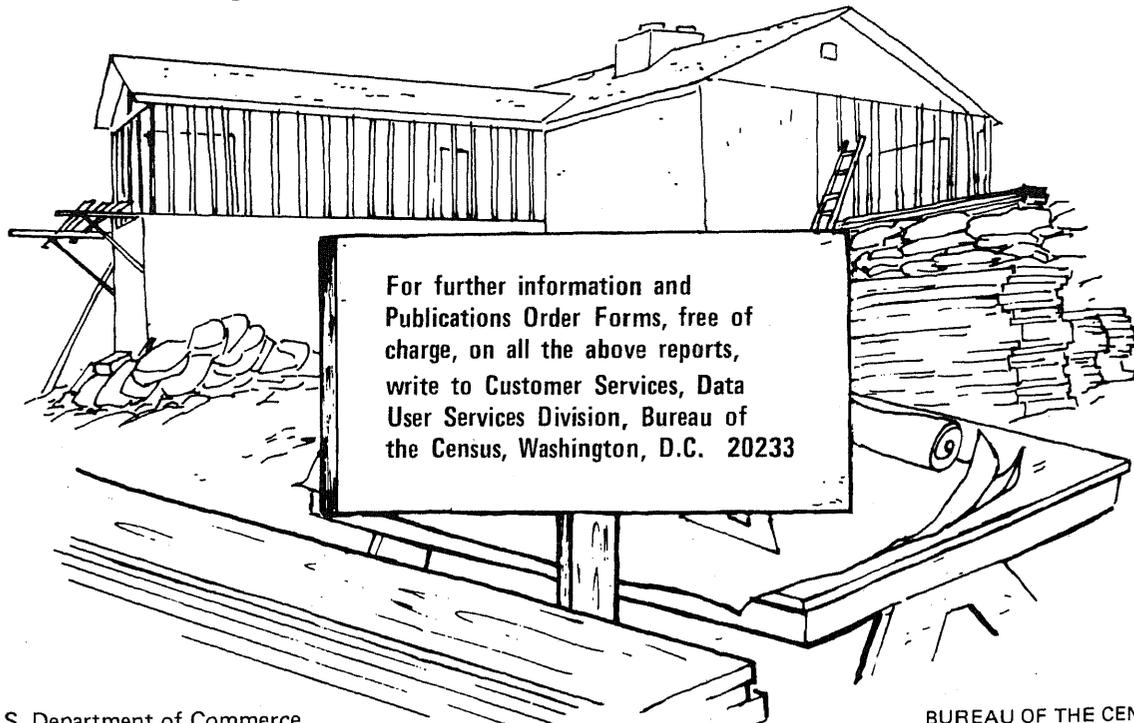
C27 - Price Index of New One-Family Houses Sold

C30 - Value of New Construction Put in Place

C40 - Housing Authorized by Building Permits and Public Contracts

C45 - Permits Issued for Demolition of Residential Structures in Selected Cities

C50 - Expenditures on Residential Additions, Alterations, Maintenance and Repairs, and Replacements



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CURRENT INDUSTRIAL REPORTS

Flour Milling Products



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BUREAU OF THE CENSUS

Seasonal Adjustment Supplement
1975 to 1979

M20A Supplement
Issued June 1980

This report presents seasonally adjusted data for the years 1975 to 1979 for a number of the more important series published monthly in Current Industrial Reports Series M20A, **Flour Milling Products**. The data for the years 1959 to 1974

were excluded from this publication because there were no significant changes. These data are available in the M20A Seasonal Adjustment Supplement published on March 31, 1971 and in February 1979.

Table 1. WHEAT FLOUR PRODUCTION, AVERAGE PER WORKING DAY

YEAR	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
SEASONALLY ADJUSTED SERIES--(1,000 CWT. SACKS)												
1975.....	995	931	961	1028	1033	1022	1062	1048	1070	1070	1081	995
1976.....	1073	1005	1061	1082	1082	1070	1088	1155	1055	1066	1035	993
1977.....	1062	1142	1173	1064	1053	1048	1040	1063	1079	1038	1086	1074
1978.....	1013	1093	1116	1110	1107	1127	1068	1081	1057	1092	1084	1079
1979.....	1081	1079	1089	1087	1124	1114	1162	1150	1121	1123	1148	1120
ORIGINAL SERIES--(1,000 CWT. SACKS)												
1975.....	927	925	951	981	1016	980	1008	1083	1132	1100	1171	978
1976.....	1062	1054	1003	1017	1106	1015	1048	1169	1117	1147	1062	959
1977.....	1076	1136	1121	1042	1053	990	1028	1062	1113	1114	1133	1062
1978.....	990	1089	1057	1127	1094	1047	1063	1089	1119	1129	1130	1089
1979.....	1037	1077	1066	1061	1117	1073	1119	1145	1225	1136	1180	1135
SEASONAL FACTORS WITH TRADING-DAY--PERCENT												
1975.....	97.105	99.397	98.976	95.421	98.398	95.882	94.949	103.318	105.771	102.846	108.367	98.298
1976.....	98.999	104.918	94.567	93.991	102.172	94.824	96.296	101.200	105.831	107.627	102.625	96.619
1977.....	101.347	99.496	95.542	97.974	100.000	94.446	98.804	99.869	103.147	107.327	104.376	98.899
1978.....	97.700	99.596	94.673	101.574	98.789	92.920	99.492	100.773	105.844	103.400	104.247	100.958
1979.....	95.941	99.794	97.898	97.589	99.391	96.360	96.300	99.538	109.307	101.146	102.757	101.347
SEASONAL FACTORS WITH TRADING-DAY, ONE YEAR AHEAD--PERCENT												
1980.....	96.331	101.506	101.141	96.615	100.901	95.982	94.949	104.960	102.625	100.122	110.352	96.432

Address inquiries concerning these figures to U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233, or call Robert Rivera, (301) 763-7108.

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Table 2. MILLFEED PRODUCTION

YEAR	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
SEASONALLY ADJUSTED SERIES--(1,000 TONS)												
1975.....	367	353	367	413	399	399	405	396	405	418	386	392
1976.....	398	383	395	411	407	409	430	432	421	412	401	406
1977.....	417	431	434	412	403	399	383	398	390	386	405	426
1978.....	390	406	415	406	413	414	404	395	398	410	408	403
1979.....	408	394	387	404	411	407	418	418	410	426	428	423
ORIGINAL SERIES--(1,000 TONS)												
1975.....	371	336	366	396	389	378	403	417	429	453	377	386
1976.....	396	373	408	392	392	401	419	464	442	435	403	395
1977.....	403	409	456	392	398	389	366	435	401	406	413	410
1978.....	381	385	430	385	417	402	384	438	400	436	416	384
1979.....	404	374	401	382	421	391	403	456	406	459	436	397
SEASONAL FACTORS WITH TRADING-DAY--PERCENT												
1975.....	101.002	95.136	99.666	95.809	97.595	94.665	99.538	105.279	105.941	108.346	97.713	98.273
1976.....	99.398	97.344	103.222	95.280	96.334	97.942	97.495	107.369	104.939	105.574	100.397	97.180
1977.....	96.530	94.839	105.062	95.126	98.803	97.566	95.548	109.383	102.810	105.056	101.905	96.292
1978.....	97.708	94.740	103.517	94.755	100.899	96.986	95.158	110.996	100.493	106.373	102.010	94.171
1979.....	99.081	94.938	103.507	94.567	102.402	96.120	96.413	109.151	98.994	107.767	101.806	93.884
SEASONAL FACTORS WITH TRADING-DAY, ONE YEAR AHEAD--PERCENT												
1980.....	100.356	98.106	101.430	97.841	100.400	94.959	98.924	106.656	100.800	107.340	100.276	96.758

Table 3. WHEAT GROUND FOR FLOUR

YEAR	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
SEASONALLY ADJUSTED SERIES--(1,000 BUSHEL)												
1975.....	45543	43833	44909	50760	49050	48987	50057	49232	50622	52364	48482	48903
1976.....	50077	48598	50330	51882	51267	51903	53650	54049	52382	51716	50124	50767
1977.....	52149	53888	54858	51639	50240	50204	48597	50619	50615	49773	52528	53832
1978.....	49116	51897	53060	52670	53335	53097	52282	50643	50564	52025	51738	51829
1979.....	51197	51051	50874	52278	53696	52819	53933	54184	52674	54856	54545	53268
ORIGINAL SERIES--(1,000 BUSHEL)												
1975.....	46045	41658	44896	48602	47919	46513	59718	51379	53627	56685	47421	48212
1976.....	49976	47296	51695	49946	49488	50430	52145	57825	55294	54225	50273	49691
1977.....	50852	50840	57635	49184	49688	49072	46149	54844	52244	52352	53159	52106
1978.....	48430	48910	54821	50478	53601	51544	49749	56062	50506	55348	52934	48913
1979.....	50886	48163	52454	50205	55093	50308	51995	58874	52249	58772	55586	50533
SEASONAL FACTORS WITH TRADING-DAY--PERCENT												
1975.....	101.103	95.037	99.971	95.748	97.695	94.949	99.323	104.361	105.936	108.253	97.812	98.565
1976.....	99.799	97.321	102.713	96.269	96.531	97.162	97.194	106.986	105.560	104.851	100.297	97.889
1977.....	97.514	94.353	105.063	95.246	98.902	97.745	94.963	108.346	103.218	105.181	101.202	96.799
1978.....	98.602	94.244	103.318	95.838	100.499	97.075	95.154	110.700	99.884	106.387	102.312	94.375
1979.....	99.393	94.343	103.106	96.035	102.603	95.246	96.407	108.655	99.194	107.139	101.908	94.869
SEASONAL FACTORS WITH TRADING-DAY, ONE YEAR AHEAD--PERCENT												
1980.....	101.168	97.015	101.347	98.374	100.400	95.246	98.913	105.634	100.801	107.145	100.082	97.077

Table 4. AVERAGE PERCENTAGE AND RELATED MEASURES FOR SERIES COMPONENTS

Item	Average percentage changes for 1 month span				Ratio of irregular component to cyclical component (\bar{I}/\bar{C})	Number of months for cyclical dominance (MCD)	I/C for MCD span	Average duration of run			MCD
	Original unadjusted series (\bar{O})	Seasonally adjusted series (\bar{CI})	Irregular component (\bar{I})	Cyclical component (\bar{C})				\bar{CI}	\bar{I}	\bar{C}	
Wheat flour production, average per working day.....	5.45	3.01	2.88	.63	4.61	6	1.05	1.54	1.44	5.11	3.07
Millfeed production.....	5.50	2.40	2.17	.64	3.42	6	.79	2.07	1.77	4.77	3.00
Wheat ground for flour.....	5.31	2.53	2.34	.63	3.82	6	.89	1.86	1.81	5.11	2.81

The seasonal adjustments were made using the X-11 variant of the Bureau of the Census seasonal adjustment program. The X-11 program incorporates techniques for the treatment of extreme values, and a regression program to identify trading-day adjustment to the monthly aggregates. Both of these procedures have been used for the series presented in this publication. A short description of the adjustment process follows below. Further detail is described in the literature on this method.¹ It should be noted that the data included in this report are adjusted on an establishment basis, prior to tabulation, for variation in the length of the reporting period, such as 4-week, 5-week, or calendar month.

For each series included in this report the following information is shown:

1. Seasonally-adjusted data
2. Original series. Data without seasonal adjustment.
3. Seasonal adjustment factors. With trading-day the seasonally-adjusted data are obtained by dividing the unadjusted data by the seasonal factors with trading day for the specific month.
4. Average percentage changes and related measures for each series.

The seasonally adjusted data were developed for each of the detailed series shown. Beginning in the January 1979 publication, these seasonally adjusted data were included in the regular report. That report also includes a detailed description of the survey, including a discussion of the scope and coverage of the report together with an explanation of the terms.

TRADING-DAY FACTORS

Variation in the rate of activity that arises for the existence of different numbers of trading days in the same month for different years can be an important cause of month-to-month irregular fluctuations. Unlike some other causes of irregular fluctuations such as unexpected economic developments, unusual weather, and statistical errors, trading-day irregularities can be approximately identified and removed so that the underlying trend cycle stands out more clearly. Hence, it is often possible to reduce the irregular factor by a trading-day adjustment.

BASIC STEPS OF THE X-11 SEASONAL ADJUSTMENT PROGRAM

1. A 12-month centered moving average of the original series is computed to obtain a first-round estimate of the trend-cycle component.
2. This trend-cycle estimate is divided into the original series to obtain preliminary seasonal-irregular (S-I) ratios.
3. A weighted 5-term moving average of these S-I ratios (with weights 1, 2, 3, 2, 1) is computed for each of the 12 calendar

months separately to average out the influence of irregular movements and to obtain first-round estimates of the seasonal factors. The use of a moving average yields a distinct seasonal factor for each month of each year. Thus, the first-round seasonal factor, for, say, January 1975 is derived from the five January S-I ratios for the years 1973 to 1977, inclusive.

Unfortunately, sufficient year-ahead data are not available for the 2 years at the end of a time series to calculate this 5-term average. For example, a 5-term average centered in 1978 requires S-I ratios for 1976 through 1980 inclusive, while for this article 1979 is the last year for which data are available. To compensate for the lack of future data, the X-11 weights the available S-I ratios (which for 1979 factors are the S-I ratios for 1977, 1978, and 1979) more heavily than if future data were available. For example, in calculating the first-round seasonal factor for January 1979, the January 1979 S-I ratio is given a weight of .407, while in computing the first-round seasonal factor for January 1979, the January 1976 S-I ratio is given a weight of only .333.

4. These factors are adjusted to sum to 12.000 in ratio form, or 1.200 in index number form, over any 12-month period so that year-to-year changes in the series are unaffected.

5. These adjusted first-round seasonal factors are divided into the S-I ratios to get an estimate of the irregular component.

6. A moving 5-year (60 month) standard deviation (σ) of these irregular component estimates is calculated, and the irregulars in the central year of the 5-year period are tested against 2.5σ . Irregulars greater than 2.5σ are removed, and the moving 5-year standard deviation is again computed. If the irregular for a month in the central year is:

a. greater than 2.5σ , it is considered an extreme value, and the corresponding S-I ratio is removed and replaced by an average of the two nearest preceding and two nearest following full weight (i.e., unmodified) S-I ratios for that month.

b. less than 1.5σ , then the corresponding S-I ratio for that month is given full weight;

c. between 2.5σ and 1.5σ a linearly graduated weight between 0.0 and 1.0 is assigned to the irregular, and the corresponding S-I ratio is replaced with an average of the ratio times its assigned weight and the two nearest preceding and two nearest following full weight S-I ratios for that month.

This graduated treatment of extremes is designed to limit the influence of unusually large irregular movements on seasonal factors.

7. A weighted 5-term moving average of the S-I ratios is again calculated separately for each month—this time with extreme values replaced as described in step 6—to obtain modified first-round seasonal factors. Again these seasonal factors are adjusted to sum to 12.000 over any 12-month period.

8. These modified first-round seasonal factors are divided into the original series to get a preliminary seasonally adjusted series.

9. A special weighted moving average (the so-called Henderson average) is applied to this preliminary seasonally adjusted series to obtain a revised estimate of the trend-cycle component. The span of this moving average depends on the variability of the irregular component relative to that of the trend-cycle

¹ *Electronic Computers and Business Indicators*, National Bureau of Economic Research Occasional Paper 57 (New York, 1957); *Tests and Revisions of Bureau of the Census Methods of Seasonal Adjustments*, Bureau of the Census Technical Paper No. 5 (Washington, 1961, \$1.00); *The X-11 Variant of the Census Method II Seasonal Adjustment Program*, Bureau of the Census Technical Paper No. 15 (Washington, 1967, \$.50).

component, with the more irregular the series, the longer the span. A preliminary estimate of the variability of the irregular relative to the trend cycle is obtained using a 13-month Henderson average.

10. This revised trend-cycle estimate is divided into the original series to obtain revised S-I ratios.

11. A weighted 5-term moving average (with weights, 1, 2, 3, 2, 1) of these S-I ratios is computed separately for each month to obtain revised seasonal factor estimates. Thus, the seasonal factor for, say, January 1977 is derived from the five January S-I ratios for the years 1975 to 1979, inclusive. Sufficient year-ahead data are not available for the 3 years at the end of the series to compute this 7-term average. For example, a 5-term average centered in 1979 needs data from 1977 to 1981, inclusive, and (as of the end of 1979) data from 1980 and 1981 are not available. To compensate for this lack of future data, the X-11 weights the available S-I ratios more heavily than if future data were available. For example, in computing the revised January 1979 seasonal factor, the January S-I ratio for 1979 is given a weight of .283, while in computing the revised January 1979 seasonal factor, the January 1976 S-I ratio is given a weight of only .200.

12. These revised seasonal factors are divided into the S-I ratios to get new estimates of the irregular component, and the S-I ratios are modified for extremes by the same method as described in step 6.

13. A weighted 5-term moving average of these modified S-I ratios is computed separately for each month to obtain the X-11's final seasonal factors. These factors are again adjusted to sum to 12.000 over any 12-month period.

14. These final seasonal factors are divided into the original series to obtain the X-11's final seasonally adjusted series.

15. Preliminary seasonal factors for the upcoming year are estimated from the formula

$$S_{n+1} = S_n + 1/2(S_n - S_{n-1})$$

where S_n = the seasonal factor for year n.

BRIEF DEFINITIONS OF MEASURES SHOWN IN TABLE 4

The following are brief definitions; more complete explanations appear in **Electronic Computers and Business Indicators**,

by Julius Shiskin, issued as Occasional Paper 57 (reprinted from **Journal of Business**, October 1957).

\bar{O} is the average month-to-month percentage change without regard to sign of the original unadjusted series.

\bar{C} is the average month-to-month percentage change, without regard to sign, in the seasonally adjusted series (i.e., the series after adjustment for measurable seasonal, trading-day and holiday variations).

\bar{I} is the same for the irregular component, obtained by dividing the cyclical component into the seasonally adjusted series.

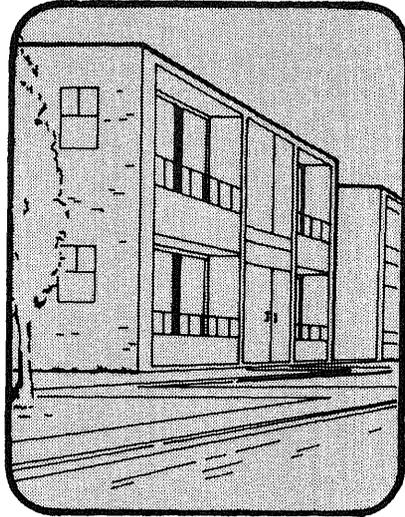
\bar{C} is the same for the cyclical component, a smooth, flexible moving average of the seasonally adjusted series.

\bar{I}/\bar{C} is a measure of the relative smoothness (small values) or irregularity (large values) of the seasonally adjusted series. It is shown for 1-month spans and for spans of the period of MCD. When MCD is "6", no \bar{I}/\bar{C} ratio is shown for the MCD period.

MCD (Months for Cyclical Dominance) provides an estimate of the appropriate time span over which to observe cyclical movements in a monthly series. It is small for smooth series and large for irregular series. In deriving MCD, percentage changes are computed separately for the irregular component and the cyclical component over 1-month spans (Jan.-Feb., Feb.-Mar., etc.), 2-month spans (Jan.-Mar., Feb.-Apr., etc.), up to 12-month spans. Averages, without regard to sign, are then computed for the changes over each span. MCD is the shortest span in months for which the average percentage change (without regard to sign) in the cyclical component is larger than the average percentage change (without regard to sign) in their regular component, and remains so. Thus, it indicates the point at which fluctuations in the seasonally adjusted series became dominated by cyclical rather than irregular movements. All series with an MCD greater than "5" are shown as "6".

ADR (Average Duration of Run) is another measure of smoothness and is equal to the average number consecutive monthly changes in the same direction in any series of observations. Where there is no change between two months, a change in the same direction as the preceding change is assumed. The ADR is shown for the seasonally adjusted series CI, irregular component I, cyclical component C, and the MCD curve. The MCD curve is an unweighted moving average (with the number of terms equal to MCD) of the seasonally adjusted series.

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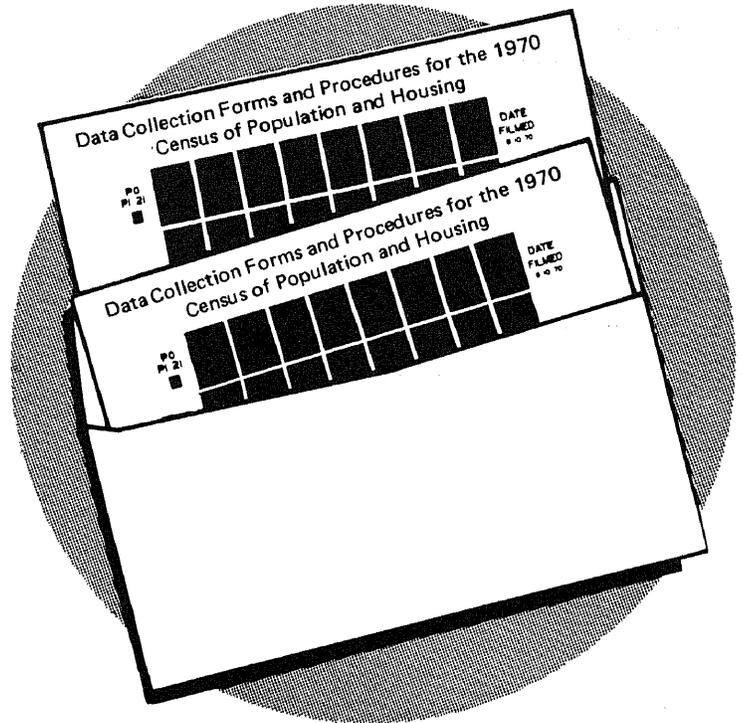
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CURRENT INDUSTRIAL REPORTS
Flour Milling Products



U.S. Department of Commerce
BUREAU OF THE CENSUS

JANUARY 1980

M20A(80)-1
Issued April 1980

The statistics in this publication are based on a survey of manufacturers and represent total U.S. production of flour milling products. Estimates are included for companies whose

reports were not received in time for tabulation. A more complete description of this survey appears on page 7.

THIS REPORT INCLUDES DATA COMPARING DOMESTIC OUTPUT, EXPORTS, AND IMPORTS

THE GRAPHIC PRESENTATION FOR THIS SURVEY WAS NOT AVAILABLE AT THE TIME OF PUBLICATION.

Address inquiries concerning these figures to U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233, or call Gina M. Pagano, (301) 763-7837.

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Table 1A. SUMMARY OF WHEAT FLOUR MILLING, SEASONALLY ADJUSTED: 1977 TO 1980

Month and year	Wheat flour production average per working day ¹ (1,000 cwt.)	Millfeed production (1,000 tons)	Wheat ground for flour (1,000 bushels)
1980			
January.....	1,163	438	55,454
1979			
December.....	1,116	417	53,134
November.....	1,162	439	55,922
October.....	1,107	430	55,082
September.....	1,109	394	51,587
August.....	1,155	417	54,312
July.....	1,169	417	54,274
June.....	1,123	408	52,118
May.....	1,135	415	54,440
April.....	1,084	408	53,142
March.....	1,095	385	50,453
February.....	1,084	395	51,051
January.....	1,080	412	51,348
1978			
December.....	1,086	404	51,457
November.....	1,093	415	52,728
October.....	1,084	412	52,742
September.....	1,043	390	46,147
August.....	1,087	393	50,886
July.....	1,124	401	52,176
June.....	1,124	413	53,196
May.....	1,111	417	53,821
April.....	1,108	408	53,000
March.....	1,122	413	53,010
February.....	1,096	406	51,788
January.....	1,065	393	49,714

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Thanksgiving Day, and December 25.

Table 1B. SUMMARY OF WHEAT FLOUR MILLING, NOT SEASONALLY ADJUSTED: 1977 TO 1980

Month and year	Wheat flour production (1,000 cwt.)		Millfeed production (tons)	Wheat ground for flour (1,000 bushels)	Wheat flour mill stocks ² (1,000 cwt.)	Daily 24-hour capacity in wheat flour ² (1,000 cwt.)	Wheat flour produced as percent of capacity	Flour extraction rate ³ (percent)
	Average per working day ¹	Calendar month total						
1980								
January (22 days).....	1,116	24,553	429,495	54,955	(NA)	1,059	105.4	74.5
1979								
December (20 days).....	1,136	22,739	396,985	50,530	3,975	1,059	107.3	75.0
November (21 days).....	1,180	24,778	435,838	55,586	(NA)	1,050	118.0	74.3
October (23 days).....	1,136	26,137	458,795	58,772	(NA)	1,050	108.2	74.1
September (19 days).....	1,225	23,280	407,341	52,258	3,813	1,050	116.7	74.3
August (23 days).....	1,145	26,334	456,627	58,874	(NA)	1,050	109.1	74.6
July (21 days).....	1,119	23,508	403,133	51,995	(NA)	1,050	106.6	75.4
June (22 days).....	1,073	22,536	391,196	50,138	3,895	1,050	102.2	74.9
May (22 days).....	1,117	24,573	421,726	55,093	(NA)	1,057	105.7	74.3
April (21 days).....	1,061	22,291	382,444	50,205	(NA)	1,057	100.4	74.1
March (22 days).....	1,066	23,454	401,433	52,454	3,477	1,057	100.9	74.5
February (20 days).....	1,077	21,542	373,702	48,163	(NA)	1,058	101.8	74.5
January (22 days).....	1,037	22,817	403,584	50,886	(NA)	1,058	98.0	74.7
1978								
December (20 days).....	1,097	21,942	384,942	48,913	3,214	1,058	103.7	74.8
November (21 days).....	1,130	23,738	416,152	52,934	(NA)	1,066	106.0	74.7
October (22 days).....	1,129	24,843	436,433	55,348	(NA)	1,066	105.9	74.6
September (20 days).....	1,123	22,456	400,263	50,531	3,342	1,066	105.3	73.9
August (23 days).....	1,089	25,053	438,773	56,062	(NA)	1,045	104.2	74.4
July (20 days).....	1,117	22,335	384,090	49,749	(NA)	1,045	106.9	74.8
June (22 days).....	1,047	23,051	401,878	51,544	3,549	1,045	100.3	74.5
May (22 days).....	1,094	24,078	417,032	53,601	(NA)	1,039	105.3	74.5
April (20 days).....	1,127	22,554	385,227	50,478	(NA)	1,039	108.5	74.5
March (23 days).....	1,057	24,330	430,260	54,821	4,096	1,039	101.8	73.8
February (20 days).....	1,086	21,783	385,269	48,910	(NA)	1,077	100.9	74.2
January (21 days).....	1,037	21,787	380,717	48,430	(NA)	1,077	92.0	74.9

(NA) Not available.

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and December 25. ²Collected quarterly. ³Wheat flour production as compared with amount of wheat ground.

Table 2. QUANTITY OF DURUM WHEAT AND RYE FLOUR PRODUCTION, GRAIN CONSUMPTION MILL STOCKS, AND CAPACITY

Product code	Description of item	Unit of measure	January 1980	December 1979	January 1979
	Durum wheat (included in table 1 data):				
00111 73	Durum wheat ground.....	M bu.....	3,377	2,990	3,012
20411 53	Straight semolina durum flour.....	M cwt.....	1,464	1,294	1,349
20411 55	Blended semolina durum flour.....	..do.....	(D)	(D)	(D)
	Rye:				
00119 51	Rye ground for flour.....	M bu.....	351	267	325
20416 11	Rye flour production.....	M cwt.....	153	120	134
20416 18	Rye millfeed production.....	Tons.....	2,022	1,115	1,937
20416 11	Rye flour stocks ¹	M cwt.....	(NA)	18	(NA)
	24 hour capacity.....	..do.....	10	10	10

Note: Data include estimates for small mills. Detail may not add to total due to independent rounding. These data exclude all flour blended by macaroni and spaghetti manufacturers, etc., as such activities are not within scope of this survey. Only mills engaged in milling flour or meal are included in this survey.

(D) Withheld to avoid disclosure of figures for individual companies. (NA) Not available.

¹Collected quarterly.

Table 3. QUANTITY OF WHEAT GROUND FOR FLOUR AND WHEAT FLOUR PRODUCTION, BY DIVISION AND STATE

(Wheat ground for flour in thousands of bushels; wheat production in thousands of hundredweight)

Geographic area	January 1980		December 1979		January 1979	
	Wheat ground for flour	Wheat flour production	Wheat ground for flour	Wheat flour production	Wheat ground for flour	Wheat flour production
United States.....	54,955	24,553	50,530	22,739	50,886	22,817
Middle Atlantic.....	7,109	3,204	7,046	3,221	7,149	3,229
New York.....	5,751	2,599	5,626	2,581	5,845	2,644
North Central.....	29,417	13,205	26,673	11,974	26,375	11,809
Ohio.....	3,321	1,469	2,749	1,213	2,963	1,289
Indiana.....	1,367	594	1,259	545	1,425	613
Illinois.....	3,227	1,422	2,822	1,252	2,846	1,262
Michigan.....	840	369	714	313	836	371
Minnesota.....	6,587	2,986	5,947	2,696	5,084	2,306
Iowa.....	(D)	(D)	(D)	(D)	(D)	(D)
Missouri.....	3,401	1,559	3,318	1,510	4,058	1,837
Nebraska.....	(D)	(D)	(D)	(D)	(D)	(D)
Kansas.....	6,799	3,078	6,537	2,958	6,238	2,826
South Atlantic.....	3,818	1,673	3,351	1,468	3,147	1,381
East South Central.....	2,533	1,108	2,447	1,074	2,554	1,111
Tennessee.....	1,930	847	1,837	811	1,965	860
West South Central.....	3,754	1,694	3,643	1,642	3,550	1,591
Oklahoma.....	1,514	700	1,476	685	1,536	705
Texas.....	1,612	715	1,601	706	1,463	642
Mountain.....	2,934	1,342	2,720	1,256	2,928	1,338
Montana.....	639	296	674	315	667	307
Utah.....	(D)	(D)	(D)	(D)	(D)	(D)
Pacific.....	5,390	2,327	4,650	2,104	5,183	2,358
Washington.....	1,567	707	1,378	624	1,677	753
Oregon.....	768	342	641	293	785	364
California and Hawaii.....	3,055	1,278	2,631	1,187	2,721	1,241

Note: Detail may not add to total due to independent rounding.

(D) Withheld to avoid disclosure of figures for individual companies.

Table 4. EXPORTS OF WHEAT AND WHEAT FLOUR

Country to which exported	December 1979	November 1979	12 months through December 1979
WHEAT FLOUR, EXCEPT MEAL AND GROATS, FOR RELIEF OR CHARITY (1314010 AND 1314030) (1,000 cwt.)			
Total.....	361	284	2,636
Egypt.....	2	37	406
Guatemala.....	-	-	41
Colombia.....	-	-	-
Ecuador.....	2	-	6
Brazil.....	-	-	2
Israel.....	4	6	128
India.....	114	18	257
Chile.....	38	4	164
Sri Lanka (Ceylon).....	-	34	141
Philippine Republic.....	-	33	302
Morocco.....	117	60	413
Other.....	84	92	776
WHEAT FLOUR, WHOLLY U.S. WHEAT, NOT DONATED FOR RELIEF OR CHARITY (1314020 AND 1314040) (1,000 cwt.)			
Total.....	1,971	843	18,291
Nicaragua.....	-	-	12
Jamaica.....	18	19	357
Brazil.....	-	-	38
Iceland.....	10	1	54
Jordan.....	-	-	28
Saudi Arabia.....	428	464	3,691
Sri Lanka (Ceylon).....	-	-	1,681
Egypt.....	1,360	242	9,565
Philippine Republic.....	2	26	29
Korean Republic.....	-	-	75
Morocco.....	-	75	-
Other.....	153	16	2,761
WHEAT, INCLUDING SPELT OR MESLIN, UNMILLED, NOT DONATED FOR RELIEF OR CHARITY (1306540) (1,000 bu.)			
Total.....	114,879	108,882	1,222,487
U.S.S.R.....	24,469	12,851	197,072
Venezuela.....	2,952	2,656	26,899
Peru.....	-	1,993	14,505
Brazil.....	3,659	3,807	56,100
Portugal.....	2,822	-	20,383
Iran.....	-	-	22,445
Indonesia.....	1,800	1,519	21,956
Korean Republic.....	3,607	5,658	61,664
China (Taiwan).....	3,152	2,204	28,410
Japan.....	11,056	9,018	123,128
Egypt.....	5,069	3,881	47,718
Nigeria.....	2,940	3,389	33,951
Other.....	53,353	61,906	568,256

Note: Data in this table are taken from Foreign Trade publication FT-410, U.S. Exports. The Schedule B codes are shown above.

- Represents zero.

Table 5. PRODUCTION AND EXPORTS OF WHEAT FLOUR
 (Quantity in 1,000 cwt.; value in thousands of dollars)

Product	Wheat flour production		Exports of domestic merchandise ¹		Percent exports to manufacturers' shipments	
	Quantity	Value	Quantity	Value	Quantity	Value
DECEMBER 1979						
Wheat flour.....	24,553	(NA)	2,332	29,222	9.4	(NA)
NOVEMBER 1979						
Wheat flour.....	22,739	(NA)	1,127	13,485	4.9	(NA)

Comparison of Standard Industrial Classification codes, Schedule B export numbers, and TSUSA import numbers is as follows:

<u>Domestic output</u>	<u>Exports</u>	<u>Imports</u>
20411	131.4010-131.4040	

(NA) Not available.

¹Source: Bureau of the Census Report FT-410, U.S. Exports, Commodity by Country.

DESCRIPTION OF SURVEY

Scope of Survey—This survey covers firms engaged in the production of wheat and rye flour.

Sampling Description—The data shown in this publication were collected on Bureau of the Census monthly Form M20A, *Flour Milling Products*. The aggregates published in this report have been compiled from a sample of approximately 250 respondents, accounting for 98 percent of the total U.S. production of flour mill products. The universe for this sample was the 1958 Census of Manufactures. The reporting panel consists of mills with a daily capacity of over 400 sacks of flour. Approximately 200 small establishments are in the nonmail universe. Their production data are estimated based upon their 1958 Census of Manufactures report. The monthly reporting panel was selected by arraying the reporting units in descending order by size for each product line, then choosing a sufficient number of respondents (beginning with the largest) to yield a coverage of approximately 98 percent for each product line.

Survey Error—The figures for the current month include estimates for respondents in the reporting panel whose reports were not received in time for tabulation, as well as for 200 small respondents excluded from the mail panel. Missing figures for companies in the reporting panel are "imputed" from the month-to-month movements shown by reporting firms. The overall imputation rate is generally limited to 12 percent, including about 2 percent for small respondents excluded from the monthly reporting panel. Individual items with imputation rates greater than 12 percent are footnoted.

The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse, both because the actual monthly movements for nonrespondents may or may not closely agree with the imputed movements and because the estimates for nonpanel cases may or may not reflect their current activity. The probable difference between the actual and imputed figures is unknown. The degree of uncertainty regarding the accuracy of the data, however, increases as the percentage of imputation increases. Figures with imputation rates above 12 percent, particularly, should be used with caution.

Revision to Previous Period Data—Statistics for previous months may be revised due to receipt of corrected data from respondents, including late reports for which imputations were previously made as described above, and other corrections. Figures which have been revised by more than 5 percent from previously published figures are indicated by footnotes.

Reporting Period Adjustment—Since January 1975, the data have been adjusted for the number of working days in the reporting period in order to compensate for differences in individual company reporting patterns, i.e., calendar month, 4-week, 5-week periods.

Seasonal Adjustment—This report presents seasonally adjusted data in table 1A for selected series shown in table 1B. The data were seasonally adjusted using the X-11 variant of the

Bureau of the Census Method II seasonal adjustment program. This seasonal adjustment program is a ratio-to-moving average method. The seasonal adjustment program largely eliminates the effect of seasonal variations (intra-year variations repeated constantly from year to year) within the series. The seasonally adjusted data usually provide a better measure than the not seasonally adjusted (original) data of the month-to-month variations which are due to factors other than seasonal pattern.

EXPLANATION OF TERMS

Units of Quantity—Grain ground is measured in bushels of 60 pounds for wheat, and 56 pounds for rye. Flour production is measured in sacks of 100 pounds.

Capacity—Based on replies to the question, "What is the maximum quantity of flour that can be produced in your mill in one day if operated for 24 hours?", the capacity of idle mills is included until the mills are reported to be destroyed, dismantled, or abandoned.

Grain—Represents the purchased weight of grain ground, including the weight of foreign material (dockage).

Millfeed—Includes bran, middlings, shorts, and other milling byproducts intended principally for use as feed materials.

Wheat Flour—Includes whole wheat flour, farina, industrial flour, and durum flour.

Stocks of Flour (Quarterly)—Represents mill stocks in all positions, sold and unsold.

COMPARISON OF EXPORT, IMPORT, AND DOMESTIC OUTPUT DATA

The Standard Industrial Classification (SIC) system used for domestic output and the statistical export and import commodity classifications were developed independently and are based on somewhat differing systems of classification. This results in considerable difficulty in comparing the three types of data for many commodity areas. The domestic output classification is based on type of industry; whereas, the export and import classification system is more materials oriented. Aside from the differences in the basic commodity classifications, there are additional problems involving import data, since there are a substantial number of imported commodities, which are not produced in the United States or which are produced only in very small quantities and which, therefore, have no comparable domestic output classification. The relationships shown in this report should be considered only as approximations, since, in addition to those mentioned above, there are also the following problems affecting the comparability of the three sets of data:

a. *Valuation*—There are different methods of valuation for the three types of data.

Domestic Output—Valued at the point of production. It includes the net sales price, f.o.b. plant, after discounts and allowances, exclusive of freight charges and excise taxes.

Exports—Valued at the point of exportation. It includes the selling price, or cost if not sold, and inland freight, insurance, and other charges to the export point.

Imports—Valued at the first port of entry in the United States. It includes c. i. f. (cost, insurance, and freight), duty, and other charges to the import point.

b. *Duplication in Quantity and Value of Output*—Because producers' shipments of some commodities may be used as materials for incorporation into other commodities, combinations of data for such commodities may contain a certain amount of duplication. Thus, percentages of exports to output or imports to apparent consumption (output plus imports minus exports) at four-digit or broader levels may be understated. Where duplication is known to be substantial, the output data are appropriately noted in the table.

c. *Low-Valued Export and Import Transactions*—Commodity information is not shown for individual imports valued under \$251. For exports, commodity information is not reported for shipments individually valued under \$251 effective October 1969 and for shipments valued under \$100 prior to October 1969. This is believed to have only negligible effect on the statistics for most commodities.

d. *Manufacturers' Shipments, Not Specified by Kind*—The value of manufacturers' shipments at the four-digit industry level often includes a small amount which is not distributed among the individual five-digit product classes. Export and import percentages at the more detailed levels might, therefore, be slightly overstated.

e. *Time Lag Between Output and Exports*—There will be a lag between the time a commodity is produced or shipped by the producer and the time it is actually exported, especially when intermediaries (wholesalers, exporters, etc.) are involved. Ordinarily, this type of discrepancy is insignificant in annual figures.

f. *"Direct" vs "Total" Commodity Export and Imports*—Export and import data do not include materials which are incorporated into other more finished products and exported or imported in finished form. Thus, by showing only direct exports and imports, the relation of exports to output and imports to apparent consumption for intermediate products is considerably understated.

g. *Used Commodities*—With a few exceptions, used or rebuilt commodities are classified in the same import or export codes as is new merchandise. Percentages are thus overstated to the extent that used or rebuilt products are significant in trade.

RELATED REPORTS

An annual Current Industrial Report is published in this series. The annual report summarizes monthly figures and incorporates all known revisions in the series for both current and previous year, thus, providing a single reference copy to replace the monthly publications. This annual summary provides additional information on the history of this survey.

The Bureau of the Census also publishes reports on related products as follows:

Series	Frequency	Title
<i>Current Industrial Reports</i>		
M3-1	Monthly	Manufacturers' Shipments, Inventories, and Orders
M20C	Monthly	Confectionery, Including Chocolate Products
<i>Foreign Trade Reports</i>		
FT-410	Monthly	U.S. Exports—Schedule B—Commodity by Country
FT-135	Monthly	U.S. General Imports—Schedule A—Commodity by Country

CONTACTS FOR DATA USERS

Subject Area	Contact	Phone Number
Current Industrial Report M20A	Gina M. Pagano	(301) 763-7837
Foreign Trade publications	Juanita Noone	(301) 763-5140
To order a Census Bureau publication	Daisy Williams	(301) 763-7472
To order Census Bureau microfiche	Maria Brown	(301) 763-5511

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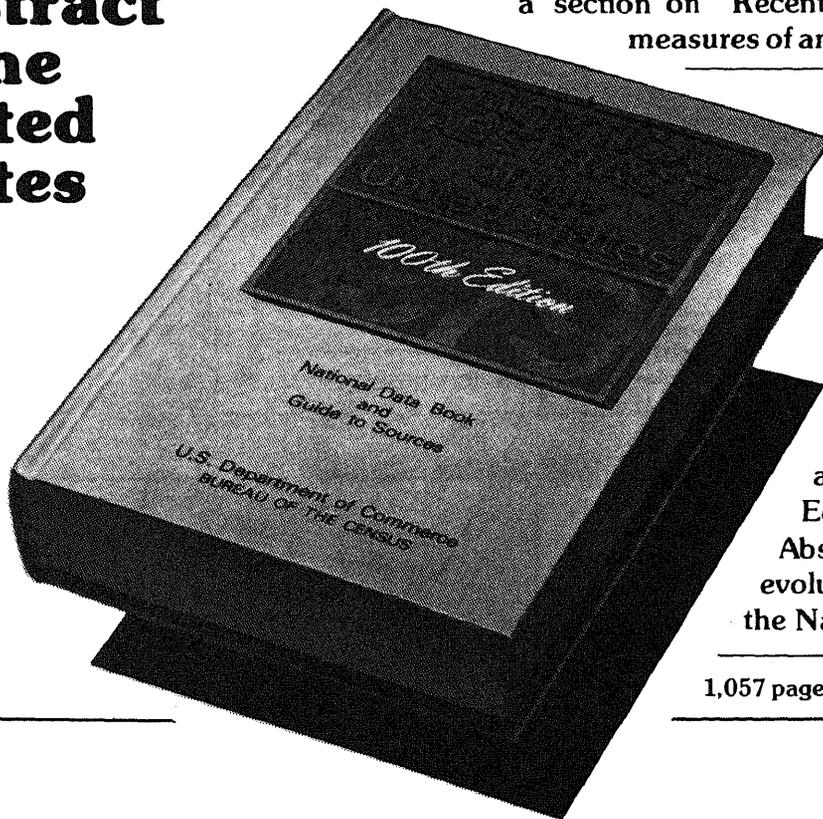
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Flour Milling Products



U.S. Department of Commerce
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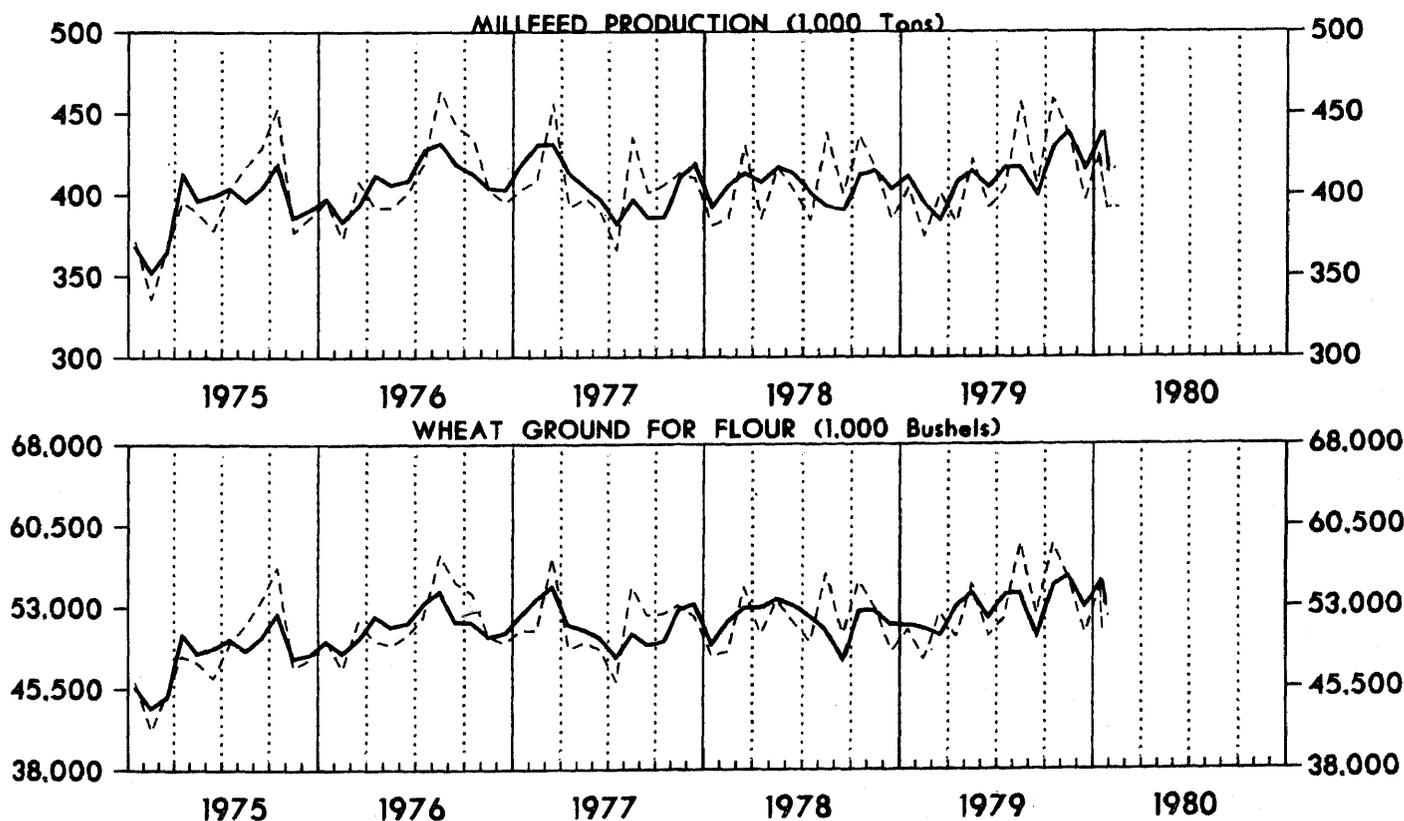
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WHEAT FLOUR MILLING: 1975 TO 1980

— Seasonally Adjusted
- - - Not Seasonally Adjusted



Address inquiries concerning these figures to U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233, or call Gina M. Pagano, (301) 763-7837.

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August.....	1,155	417	54,312
July.....	1,169	417	54,274
June.....	1,123	408	52,118
May.....	1,135	415	54,440
April.....	1,084	408	53,142
March.....	1,095	385	50,453
February.....	1,084	395	51,051
January.....	1,080	412	51,348
1978			
December.....	1,086	404	51,457
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October.....	1,084	412	52,742
September.....	1,043	390	46,147
August.....	1,087	393	50,886
July.....	1,124	401	52,176
June.....	1,124	413	53,196
May.....	1,111	417	53,821
April.....	1,108	408	53,000
March.....	1,122	413	53,010
February.....	1,096	406	51,788
January.....	1,065	393	49,714

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Thanksgiving Day, and December 25.

Table 1B. SUMMARY OF WHEAT FLOUR MILLING, NOT SEASONALLY ADJUSTED: 1978 TO 1980

Month and year	Wheat flour production (1,000 cwt.)		Millfeed production (tons)	Wheat ground for flour (1,000 bushels)	Wheat flour mill stocks ² (1,000 cwt.)	Daily 24-hour capacity in wheat flour ² (1,000 cwt.)	Wheat flour produced as percent of capacity	Flour extraction rate ³ (percent)
	Average per working day ¹	Calendar month total						
1980								
February (21 days).....	1,077	22,614	393,909	50,330	(NA)	1,059	101.6	74.8
January (22 days).....	1,116	24,553	429,495	54,955	(NA)	1,059	105.4	74.5
1979								
December (20 days).....	1,136	22,739	396,985	50,530	3,975	1,059	107.3	75.0
November (21 days).....	1,180	24,778	435,838	55,586	(NA)	1,050	118.0	74.3
October (23 days).....	1,136	26,137	458,795	58,772	(NA)	1,050	108.2	74.1
September (19 days).....	1,225	23,280	407,341	52,258	3,813	1,050	116.7	74.3
August (23 days).....	1,145	26,334	456,627	58,874	(NA)	1,050	109.1	74.6
July (21 days).....	1,119	23,508	403,133	51,995	(NA)	1,050	106.6	75.4
June (22 days).....	1,073	22,536	391,196	50,138	3,895	1,050	102.2	74.9
May (22 days).....	1,117	24,573	421,726	55,093	(NA)	1,057	105.7	74.3
April (21 days).....	1,061	22,291	382,444	50,205	(NA)	1,057	100.4	74.1
March (22 days).....	1,066	23,454	401,433	52,454	3,477	1,057	100.9	74.5
February (20 days).....	1,077	21,542	373,702	48,163	(NA)	1,058	101.8	74.5
January (22 days).....	1,037	22,817	403,584	50,886	(NA)	1,058	98.0	74.7
1978								
December (20 days).....	1,097	21,942	384,942	48,913	3,214	1,058	103.7	74.8
November (21 days).....	1,130	23,738	416,152	52,934	(NA)	1,066	106.0	74.7
October (22 days).....	1,129	24,843	436,433	55,348	(NA)	1,066	105.9	74.6
September (20 days).....	1,123	22,456	400,263	50,531	3,342	1,066	105.3	73.9
August (23 days).....	1,089	25,053	438,773	56,062	(NA)	1,045	104.2	74.4
July (20 days).....	1,117	22,335	384,090	49,749	(NA)	1,045	106.9	74.8
June (22 days).....	1,047	23,051	401,878	51,544	3,549	1,045	100.3	74.5
May (22 days).....	1,094	24,078	417,032	53,601	(NA)	1,039	105.3	74.5
April (20 days).....	1,127	22,554	385,227	50,478	(NA)	1,039	108.5	74.5
March (23 days).....	1,057	24,330	430,260	54,821	4,096	1,039	101.8	73.8
February (20 days).....	1,086	21,783	385,269	48,910	(NA)	1,077	100.9	74.2
January (21 days).....	1,037	21,787	380,717	48,430	(NA)	1,077	92.0	74.9

(NA) Not available.

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and December 25. ²Collected quarterly. ³Wheat flour production as compared with amount of wheat ground.

Table 2. QUANTITY OF DURUM WHEAT AND RYE FLOUR PRODUCTION, GRAIN CONSUMPTION, MILL STOCKS, AND CAPACITY

Product code	Description of item	Unit of measure	February 1980	January 1980	January 1979
	Durum wheat (included in table 1 data):				
00111 73	Durum wheat ground.....	M bu.....	2,894	3,377	3,012
20411 53	Straight semolina durum flour.....	M cwt.....	1,373	1,464	1,349
20411 55	Blended semolina durum flour.....	..do.....	(D)	(D)	(D)
	Rye:				
00119 51	Rye ground for flour.....	M bu.....	283	351	325
20416 11	Rye flour production.....	M cwt.....	126	153	134
20416 18	Rye millfeed production.....	Tons.....	1,561	2,011	1,937
20416 11	Rye flour stocks ¹	M cwt.....	(NA)	(NA)	(NA)
	24 hour capacity.....	..do.....	10	10	10

Note: Data include estimates for small mills. Detail may not add to total due to independent rounding. These data exclude all flour blended by macaroni and spaghetti manufacturers, etc., as such activities are not within scope of this survey. Only mills engaged in milling flour or meal are included in this survey.

(D) Withheld to avoid disclosure of figures for individual companies. (NA) Not available.

¹Collected quarterly.

Table 3. QUANTITY OF WHEAT GROUND FOR FLOUR AND WHEAT FLOUR PRODUCTION, BY DIVISION AND STATES

(Wheat ground for flour in thousands of bushels; wheat production in thousands of hundredweight)

Geographic area	February 1980		January 1980		February 1979	
	Wheat ground for flour	Wheat flour production	Wheat ground for flour	Wheat flour production	Wheat ground for flour	Wheat flour production
United States.....	50,330	22,614	55,167	24,654	48,163	21,542
Middle Atlantic.....	6,523	2,945	7,109	3,204	6,894	3,137
New York.....	4,936	2,239	5,751	2,599	5,527	2,499
North Central.....	26,499	11,887	29,417	13,205	24,609	11,067
Ohio.....	2,915	1,293	3,321	1,469	2,587	1,126
Indiana.....	1,054	455	1,367	594	1,340	562
Illinois.....	3,077	1,348	3,227	1,422	2,787	1,237
Michigan.....	851	325	840	369	741	326
Minnesota.....	5,916	2,686	6,587	2,986	5,032	2,270
Iowa.....	(D)	(D)	(D)	(D)	(D)	(D)
Missouri.....	3,270	1,485	3,401	1,559	3,644	1,691
Nebraska.....	(D)	(D)	(D)	(D)	(D)	(D)
Kansas.....	5,886	2,672	6,799	3,078	5,521	2,492
South Atlantic.....	3,664	1,616	3,818	1,673	3,340	1,466
East South Central.....	2,457	1,078	2,533	1,108	2,486	1,081
Tennessee.....	1,873	823	1,930	847	1,906	834
West South Central.....	3,742	1,698	3,777	1,704	3,334	1,497
Oklahoma.....	1,565	727	1,514	700	1,271	585
Texas.....	1,643	736	1,635	725	1,488	659
Mountain.....	2,584	1,217	2,934	1,342	2,552	1,165
Montana.....	648	304	639	296	661	302
Utah.....	(D)	(D)	(D)	(D)	(D)	(D)
Pacific.....	4,861	2,173	5,579	2,418	4,948	2,129
Washington.....	1,440	650	1,567	707	1,361	615
Oregon.....	795	365	[†] 957	[†] 433	813	302
California and Hawaii.....	2,626	1,158	3,055	1,278	2,774	1,212

Note: Detail may not add to total due to independent rounding.

(D) Withheld to avoid disclosure of figures for individual companies.

[†]Revised by 5 percent or more from previously published figures.

Table 4. EXPORTS OF WHEAT AND WHEAT FLOUR

Country to which exported	January 1980	December 1979	Year-to-date
WHEAT FLOUR EXCEPT MEAL AND GROATS, FOR RELIEF OR CHARITY (1314010 and 1314030) (1000 cwt.)			
Total.....	75	361	75
Dominican Republic.....	1	1	1
Honduras.....	3	-	3
Guatemala.....	1	-	1
Colombia.....	-	-	-
Ecuador.....	-	2	-
Peru.....	2	8	2
Brazil.....	1	-	1
Bolivia.....	-	34	-
Chile.....	15	38	15
Morocco.....	11	117	11
Egypt.....	23	-	23
Israel.....	-	4	-
Jordan.....	2	-	2
India.....	2	114	2
Sri Lanka.....	-	-	-
Somalia.....	1	-	1
Philippines.....	-	-	-
Other.....	13	43	13
WHEAT FLOUR, WHOLLY U.S. WHEAT, NOT DONATED FOR RELIEF OR CHARITY (1314020 and 1314040) (1000 cwt.)			
Total.....	1,018	1,971	1,018
Canada.....	4	-	4
Mexico.....	4	1	4
Bahamas.....	7	8	7
Jamaica.....	3	18	3
Honduras.....	-	-	-
Nicaragua.....	-	-	-
Colombia.....	1	2	1
Peru.....	-	-	-
Brazil.....	-	-	-
Bolivia.....	27	46	27
Surinam.....	25	13	25
Iceland.....	-	10	-
Morocco.....	-	-	-
Egypt.....	675	1,360	675
Jordan.....	-	-	-
Lebanon.....	-	-	-
Saudi Arabia.....	230	428	230
United Arab Emirates.....	14	1	14
India.....	-	-	-
Sri Lanka.....	-	-	-
Korean Republic.....	-	-	-
Philippines.....	-	2	-
Other.....	28	82	28
WHEAT, INCLUDING SPELT OR MESLIN, UNMILLED, NOT DONATED FOR RELIEF OR CHARITY (1306540) (1000 bu.)			
Total.....	82,667	114,879	82,667
Mexico.....	4,579	4,989	4,579
Jamaica.....	50	-	50
Haiti.....	598	-	598
Honduras.....	69	309	69
El Salvador.....	184	588	184
Costa Rica.....	441	-	441
Panama.....	315	132	315
Venezuela.....	2,526	2,952	2,526
Colombia.....	3,445	2,018	3,445
Ecuador.....	1,722	470	1,722
Peru.....	895	-	895
Brazil.....	1,517	3,659	1,517
Bolivia.....	979	-	979
Chile.....	996	1,024	996
Surinam.....	159	-	159
Portugal.....	2,314	2,822	2,314
German Democratic Republic.....	1,725	-	1,725
Poland.....	1,076	-	1,076
U.S.S.R.....	12,240	24,469	12,240
Morocco.....	2,203	-	2,203
Egypt.....	7,447	5,069	7,447
Israel.....	1,102	3,014	1,102
Iraq.....	522	-	522
Iran.....	-	-	-
Pakistan.....	2,058	1,837	2,058
Bangladesh.....	1,110	-	1,110
China (Taiwan).....	1,176	3,152	1,176
Korean Republic.....	7,001	3,607	7,001
Indonesia.....	3,621	1,800	3,621
Philippines.....	1,918	2,007	1,918
Nigeria.....	2,490	2,940	2,490
Other.....	16,189	48,021	16,189

- Represents zero.

Table 5. PRODUCTION AND EXPORTS OF WHEAT FLOUR
(Quantity in 1,000 cwt.; value in thousands of dollars)

Product	Wheat flour production		Export of domestic merchandise ¹		Percent exports to manufacturers' shipments	
	Quantity	Value	Quantity	Value	Quantity	Value
JANUARY 1980 Wheat flour.....	22,614	(NA)	1,093	13,858	4.8	(NA)
DECEMBER 1979 Wheat flour.....	24,553	(NA)	2,332	29,222	9.4	(NA)

Comparison of Standard Industrial Classification codes, Schedule B export numbers, and TSUSA import numbers is as follows:

<u>Domestic output</u>	<u>Exports</u>	<u>Imports</u>
20411	131.4010-131.4040	-

(NA) Not available.

¹Source: Bureau of the Census Report FT-410, U.S. Exports, Commodity by Country.

DESCRIPTION OF SURVEY

Scope of Survey—This survey covers firms engaged in the production of wheat and rye flour.

Sampling Description—The data shown in this publication were collected on Bureau of the Census monthly Form M20A, **Flour Milling Products**. The aggregates published in this report have been compiled from a sample of approximately 250 respondents, accounting for 98 percent of the total U.S. production of flour mill products. The universe for this sample was the 1958 Census of Manufactures. The reporting panel consists of mills with a daily capacity of over 400 sacks of flour. Approximately 200 small establishments are in the nonmail universe. Their production data are estimated based upon their 1958 Census of Manufactures report. The monthly reporting panel was selected by arraying the reporting units in descending order by size for each product line, then choosing a sufficient number of respondents (beginning with the largest) to yield a coverage of approximately 98 percent for each product line.

Survey Error—The figures for the current month include estimates for respondents in the reporting panel whose reports were not received in time for tabulation, as well as for 200 small respondents excluded from the mail panel. Missing figures for companies in the reporting panel are “imputed from the month-to-month movements shown by reporting firms. The overall imputation rate is generally limited to 12 percent, including about 2 percent for small respondents excluded from the monthly reporting panel. Individual items with imputation rates greater than 12 percent are footnoted.

The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse, both because the actual monthly movements for nonrespondents may or may not closely agree with the imputed movements and because the estimates for nonpanel cases may or may not reflect their current activity. The probable difference between the actual and imputed figures is unknown. The degree of uncertainty regarding the accuracy of the data, however, increases as the percentage of imputation increases. Figures with imputation rates above 12 percent, particularly, should be used with caution.

Revision to Previous Period Data—Statistics for previous months may be revised due to receipt of corrected data from respondents, including late reports for which imputations were previously made as described above, and other corrections. Figures which have been revised by more than 5 percent from previously published figures are indicated by footnotes.

Reporting Period Adjustment—Since January 1975, the data have been adjusted for the number of working days in the reporting period in order to compensate for differences in individual company reporting patterns, i.e., calendar month, 4-week, 5-week periods.

Seasonal Adjustment—This report presents seasonally adjusted data in table 1A for selected series shown in table 1B.

The data were seasonally adjusted using the X-11 variant of the Bureau of the Census Method II seasonal adjustment program. This seasonal adjustment program is a ratio-to-moving average method. The seasonal adjustment program largely eliminates the effect of seasonal variations (intra-year variations repeated constantly from year to year) within the series. The seasonally adjusted data usually provide a better measure than the not seasonally adjusted (original) data of the month-to-month variations which are due to factors other than seasonal pattern.

EXPLANATION OF TERMS

Units of Quantity—Grain ground is measured in bushels of 60 pounds for wheat, and 56 pounds for rye. Flour production is measured in sacks of 100 pounds.

Capacity—Based on replies to the question, “What is the maximum quantity of flour that can be produced in your mill in one day if operated for 24 hours?”, the capacity of idle mills is included until the mills are reported to be destroyed, dismantled, or abandoned.

Grain—Represents the purchased weight of grain ground, including the weight of foreign material (dockage).

Millfeed—Includes bran, middlings, shorts, and other milling byproducts intended principally for use as feed materials.

Wheat Flour—Includes whole wheat flour, farina, industrial flour, and durum flour.

Stocks of Flour (Quarterly)—Represents mill stocks in all positions, sold and unsold.

COMPARISON OF EXPORT, IMPORT, AND DOMESTIC OUTPUT DATA

The Standard Industrial Classification (SIC) system used for domestic output and the statistical export and import commodity classifications were developed independently and are based on somewhat differing systems of classification. This results in considerable difficulty in comparing the three types of data for many commodity areas. The domestic output classification is based on type of industry; whereas, the export and import classification system is more materials oriented. Aside from the differences in the basic commodity classifications, there are additional problems involving import data, since there are a substantial number of imported commodities which are not produced in the United States or which are produced only in very small quantities and which, therefore, have no comparable domestic output classification. The relationships shown in this report should be considered only as approximations, since, in addition to those mentioned above, there are also the following problems affecting the comparability of the three sets of data:

a. *Valuation*—There are different methods of valuation for the three types of data.

Domestic Output—Valued at the point of production. It includes the net sales price, f.o.b. plant, after discounts and allowances, exclusive of freight charges and excise taxes.

Exports—Valued at the point of exportation. It includes the selling price, or cost if not sold, and inland freight, insurance, and other charges to the export point.

Imports—Valued at the first port of entry in the United States. It includes c.i.f. (cost, insurance, and freight), duty, and other charges to the import point.

b. *Duplication in Quantity and Value of Output*—Because producers' shipments of some commodities may be used as materials for incorporation into other commodities, combinations of data for such commodities may contain a certain amount of duplication. Thus, percentages of exports to output or imports to apparent consumption (output plus imports minus exports) at four-digit or broader levels may be understated. Where duplication is known to be substantial, the output data are appropriately noted in the table.

c. *Low-Valued Export and Import Transactions*—Commodity information is not shown for individual imports valued under \$251. For exports, commodity information is not reported for shipments individually valued under \$251 effective October 1969 and for shipments valued under \$100 prior to October 1969. This is believed to have only negligible effect on the statistics for most commodities.

d. *Manufacturers' Shipments, Not Specified by Kind*—The value of manufacturers' shipments at the four-digit industry level often includes a small amount which is not distributed among the individual five-digit product classes. Export and import percentages at the more detailed levels might, therefore, be slightly overstated.

e. *Time Lag Between Output and Exports*—There will be a lag between the time a commodity is produced or shipped by the producer and the time it is actually exported, especially when intermediaries (wholesalers, exporters, etc.) are involved. Ordinarily, this type of discrepancy is insignificant in annual figures.

f. *"Direct" vs "Total" Commodity Export and Imports*—Export and import data do not include materials which are incorporated into other more finished products and exported or imported in finished form. Thus, by showing only direct exports and imports, the relation of exports to output and imports to apparent consumption for intermediate products is considerably understated.

g. *Used Commodities*—With a few exceptions, used or rebuilt commodities are classified in the same import or export codes as is new merchandise. Percentages are thus overstated to the extent that used or rebuilt products are significant in trade.

RELATED REPORTS

An annual Current Industrial Report is published in this series. The annual report summarizes monthly figures and incorporates all known revisions in the series for both current and previous year, thus, providing a single reference copy to replace the monthly publications. This annual summary provides additional information on the history of this survey.

The Bureau of the Census also publishes reports on related products as follows:

Series	Frequency	Title
<i>Current Industrial Reports</i>		
M3-1	Monthly	Manufacturers' Shipments, Inventories, and Orders
M20C	Monthly	Confectionery, Including Chocolate Products
<i>Foreign Trade Reports</i>		
FT-410	Monthly	U.S. Exports—Schedule B—Commodity by Country
FT-135	Monthly	U.S. General Imports—Schedule A—Commodity by Country

CONTACTS FOR DATA USERS

Subject Area	Contact	Phone Number
Current Industrial Report	Gina Pagano	(301) 763-7837
Foreign Trade publications	Juanita Noone	(301) 763-5140
To order a Census Bureau publication	Daisy Williams	(301) 763-7472
To order Census Bureau microfiche	Maria Brown	(301) 763-5511

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C25 - Sales of New One-Family Houses

C27 - Price Index of New One-Family Houses Sold

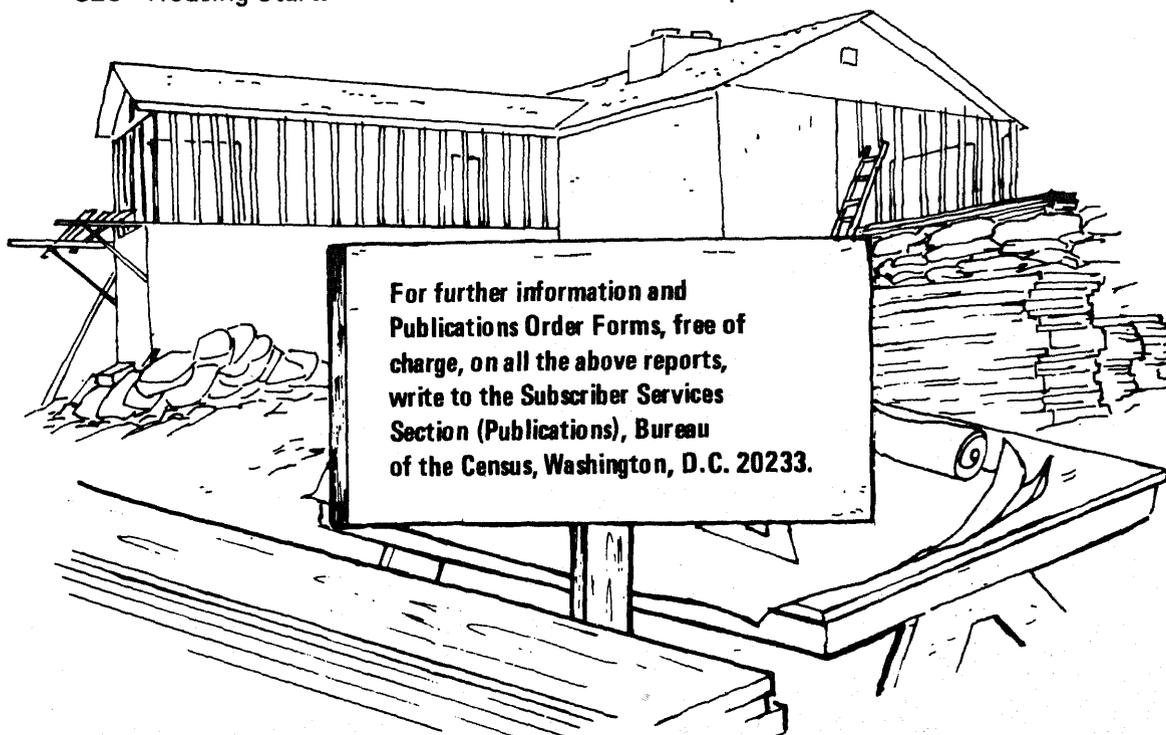
C30 - Value of New Construction Put in Place

C40 - Housing Authorized by Building Permits and Public Contracts

C41 - Authorized Construction—Washington, D.C. Area

C45 - Permits Issued for Demolition of Residential Structures in Selected Cities

C50 - Expenditures on Residential Additions, Alterations, Maintenance and Repairs, and Replacements



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Flour Milling Products



U.S. Department of Commerce
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MARCH 1980

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Issued June 1980

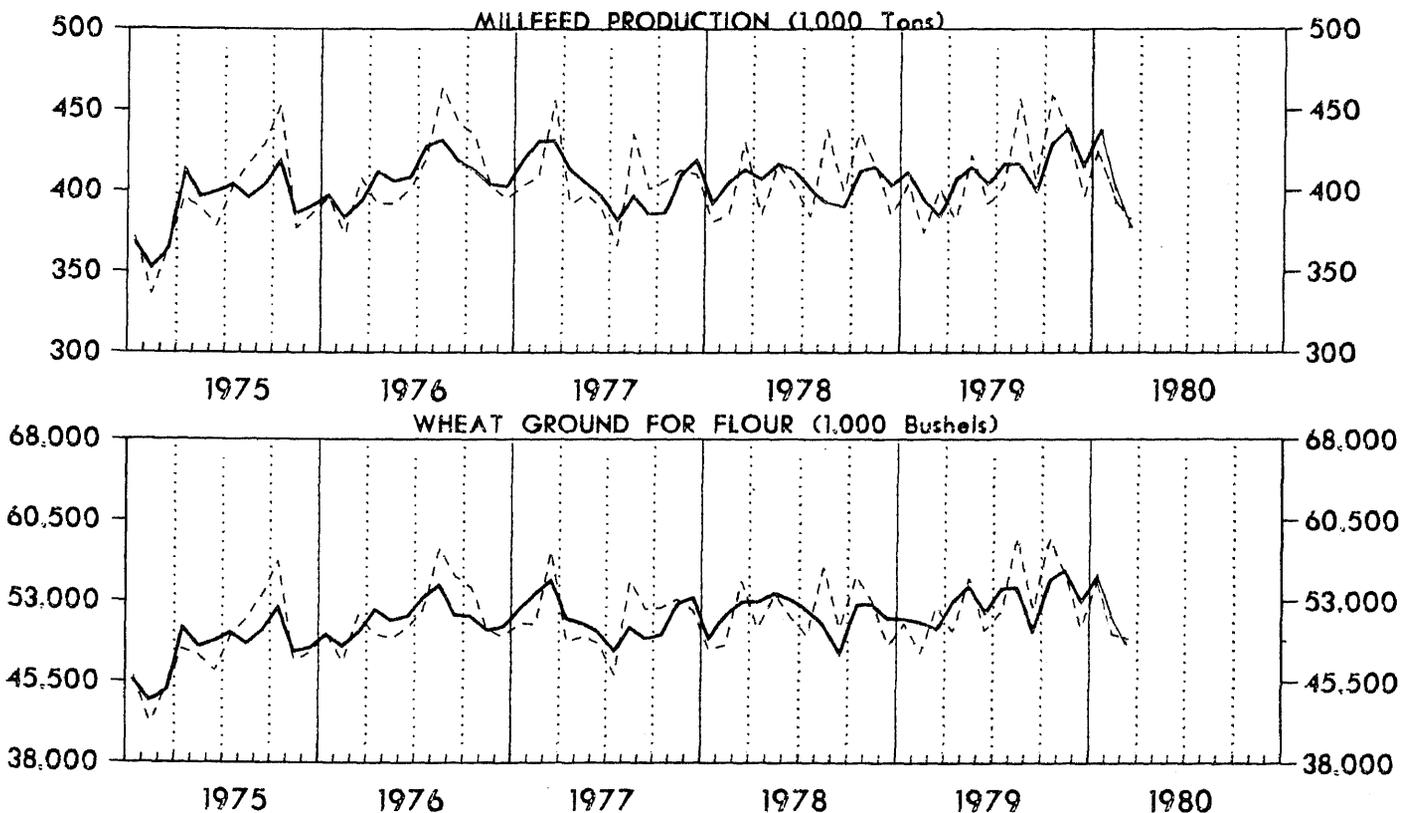
The statistics in this publication are based on a survey of manufacturers and represent total U.S. production of flour milling products. Estimates are included for companies whose

reports were not received in time for tabulation. A more complete description of this survey appears on page 7.

THIS REPORT INCLUDES DATA COMPARING DOMESTIC OUTPUT, EXPORTS, AND IMPORTS

WHEAT FLOUR MILLING 1975 TO 1980

— Seasonally Adjusted
- - - Not Seasonally Adjusted



Address inquiries concerning these figures to U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233, or call Gina M. Pagano, (301) 763-7837.

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Table 1A. SUMMARY OF WHEAT FLOUR MILLING, SEASONALLY ADJUSTED: 1978 TO 1980

Month and year	Wheat flour production average per working day ¹ (1,000 cwt.)	Millfeed production (1,000 tons)	Wheat ground for flour (1,000 bushels)
1980			
March.....	1,034	377	48,212
February.....	1,061	402	51,901
January.....	1,163	438	55,454
1979			
December.....	1,116	417	53,134
November.....	1,162	439	55,922
October.....	1,107	430	55,082
September.....	1,109	394	51,587
August.....	1,155	417	54,312
July.....	1,169	417	54,274
June.....	1,123	408	52,118
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April.....	1,108	408	53,000
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February.....	1,096	406	51,788

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Thanksgiving Day, and December 25.

Table 1B. SUMMARY OF WHEAT FLOUR MILLING, NOT SEASONALLY ADJUSTED: 1978 TO 1980

Month and year	Wheat flour production (1,000 cwt.)		Millfeed production (tons)	Wheat ground for flour (1,000 bushels)	Wheat flour mill stocks ² (1,000 cwt.)	Daily 24-hour capacity in wheat flour ² (1,000 cwt.)	Wheat flour produced as percent of capacity	Flour extraction rate ³ (percent)
	Average per working day ¹	Calendar month total						
1980								
March (21 days).....	1,046	21,970	382,137	48,861	3,323	1,059	98.8	74.9
February (21 days).....	1,077	22,624	394,095	50,352	(NA)	1,059	101.7	74.9
January (22 days).....	1,116	24,553	429,495	54,955	(NA)	1,059	105.4	74.5
1979								
December (20 days).....	1,136	22,739	396,985	50,530	3,975	1,059	107.3	75.0
November (21 days).....	1,180	24,778	435,838	55,586	(NA)	1,050	118.0	74.3
October (23 days).....	1,136	26,137	458,795	58,772	(NA)	1,050	108.2	74.1
September (19 days).....	1,225	23,280	407,341	52,258	3,813	1,050	116.7	74.3
August (23 days).....	1,145	26,334	456,627	58,874	(NA)	1,050	109.1	74.6
July (21 days).....	1,119	23,508	403,133	51,995	(NA)	1,050	106.6	75.4
June (22 days).....	1,073	22,536	391,196	50,138	3,895	1,050	102.2	74.9
May (22 days).....	1,117	24,573	421,726	55,093	(NA)	1,057	105.7	74.3
April (21 days).....	1,061	22,291	382,444	50,205	(NA)	1,057	100.4	74.1
March (22 days).....	1,066	23,454	401,433	52,454	3,477	1,057	100.9	74.5
February (20 days).....	1,077	21,542	373,702	48,163	(NA)	1,058	101.8	74.5
January (22 days).....	1,037	22,817	403,584	50,886	(NA)	1,058	98.0	74.7
1978								
December (20 days).....	1,097	21,942	384,942	48,913	3,214	1,058	103.7	74.8
November (21 days).....	1,130	23,738	416,152	52,934	(NA)	1,066	106.0	74.7
October (22 days).....	1,129	24,843	436,433	55,348	(NA)	1,066	105.9	74.6
September (20 days).....	1,123	22,456	400,263	50,531	3,342	1,066	105.3	73.9
August (23 days).....	1,089	25,053	438,773	56,062	(NA)	1,045	104.2	74.4
July (20 days).....	1,117	22,335	384,090	49,749	(NA)	1,045	106.9	74.8
June (22 days).....	1,047	23,051	401,878	51,544	3,549	1,045	100.3	74.5
May (22 days).....	1,094	24,078	417,032	53,601	(NA)	1,039	105.3	74.5
April (20 days).....	1,127	22,554	385,227	50,478	(NA)	1,039	108.5	74.5
March (23 days).....	1,057	24,330	430,260	54,821	4,096	1,039	101.8	73.8
February (20 days).....	1,086	21,783	385,269	48,910	(NA)	1,077	100.9	74.2

(NA) Not available.

¹The number of working days per month is computed on the basis of a 5-day week with allowances for the following holidays: January 1, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and December 25. ²Collected quarterly. ³Wheat flour production as compared with amount of wheat ground.

Table 2. QUANTITY OF DURUM WHEAT AND RYE FLOUR PRODUCTION, GRAIN CONSUMPTION, MILL STOCKS, AND CAPACITY

Product code	Description of item	Unit of measure	March 1980	February 1980	March 1979
	Durum wheat (included in table 1 data):				
00111 73	Durum wheat ground.....	M bu.....	3,320	2,894	3,860
20411 53	Straight semolina durum flour.....	M cwt.....	1,480	1,373	1,761
20411 55	Blended semolina durum flour.....	..do.....	(D)	(D)	(D)
	Rye:				
00119 51	Rye ground for flour.....	M bu.....	274	283	340
20416 11	Rye flour production.....	M cwt.....	125	126	147
20416 18	Rye millfeed production.....	Tons.....	1,261	1,561	1,958
20416 11	Rye flour stocks ¹	M cwt.....	22	15	21
	24 hour capacity.....	..do.....	11	10	10

Note: Data include estimates for small mills. Detail may not add to total due to independent rounding. These data exclude all flour blended by macaroni and spaghetti manufacturers, etc., as such activities are not within scope of this survey. Only mills engaged in milling flour or meal are included in this survey.

(D) Withheld to avoid disclosure of figures for individual companies.

¹Collected quarterly.

Table 3. QUANTITY OF WHEAT GROUND FOR FLOUR AND WHEAT FLOUR PRODUCTION, BY DIVISION AND STATES

(Wheat ground for flour in thousands of bushels; wheat flour production in thousands of hundredweight)

Geographic area	March 1980		February 1980		March 1979	
	Wheat ground for flour	Wheat flour production	Wheat ground for flour	Wheat flour production	Wheat ground for flour	Wheat flour production
United States.....	48,861	21,970	50,352	22,624	52,454	23,454
Middle Atlantic.....	6,411	2,890	6,523	2,945	7,060	3,169
New York.....	5,073	2,286	4,936	2,239	5,793	2,611
North Central.....	25,420	11,398	26,483	11,882	27,515	12,285
Ohio.....	2,990	1,332	2,915	1,293	3,152	1,387
Indiana.....	1,332	579	1,054	455	1,300	562
Illinois.....	2,866	1,279	3,077	1,348	2,983	1,322
Michigan.....	859	376	851	375	935	412
Minnesota.....	6,302	2,853	5,919	2,686	5,526	2,500
Iowa.....	(D)	(D)	(D)	(D)	(D)	(D)
Missouri.....	3,093	1,426	3,270	1,485	3,860	1,735
Nebraska.....	(D)	(D)	(D)	(D)	(D)	(D)
Kansas.....	4,847	2,193	5,886	2,672	6,061	2,750
South Atlantic.....	3,417	1,496	3,664	1,617	3,343	1,457
East South Central.....	2,426	1,070	2,457	1,078	2,775	1,307
Tennessee.....	1,855	815	1,873	823	2,113	1,020
West South Central.....	3,531	1,604	3,775	1,712	3,454	1,552
Oklahoma.....	1,513	706	1,565	727	1,352	622
Texas.....	1,468	651	1,676	750	1,507	668
Mountain.....	2,708	1,252	2,584	1,217	2,921	1,337
Montana.....	629	297	648	304	682	309
Utah.....	(D)	(D)	(D)	(D)	(D)	(D)
Pacific.....	4,948	2,260	4,866	2,173	5,386	2,347
Washington.....	1,302	591	1,440	650	1,401	639
Oregon.....	887	405	795	365	1,012	456
California and Hawaii.....	2,759	1,264	2,631	1,158	2,973	1,252

Note: Detail may not add to total due to independent rounding.

(D) Withheld to avoid disclosure of figures for individual companies.

Table 4. EXPORTS OF WHEAT AND WHEAT FLOUR

Country to which exported	February 1980	January 1980	Year-to-date
WHEAT FLOUR EXCEPT MEAL AND GROATS, FOR RELIEF OR CHARITY (1314010 and 1314030) (1,000 cwt.)			
Total.....	293	75	368
Dominican Republic.....	5	1	6
Honduras.....	-	3	3
Guatemala.....	-	1	1
Colombia.....	-	-	-
Ecuador.....	-	-	-
Peru.....	18	2	20
Brazil.....	1	1	2
Bolivia.....	11	-	11
Chile.....	41	15	56
Morocco.....	66	11	77
Egypt.....	11	23	34
Israel.....	30	-	30
Jordan.....	-	2	2
India.....	-	2	2
Sri Lanka.....	48	-	48
Somalia.....	11	1	12
Philippines.....	42	-	42
Other.....	9	13	22
WHEAT FLOUR, WHOLLY U.S. WHEAT, NOT DONATED FOR RELIEF OR CHARITY (1314020 and 1314040) (1,000 cwt.)			
Total.....	1,300	1,018	2,318
Canada.....	7	4	11
Mexico.....	4	4	8
Bahamas.....	4	7	11
Jamaica.....	16	3	19
Honduras.....	-	-	-
Nicaragua.....	-	-	-
Colombia.....	5	1	6
Peru.....	-	-	-
Brazil.....	-	-	-
Bolivia.....	-	27	27
Surinam.....	4	25	29
Iceland.....	9	-	9
Morocco.....	-	-	-
Egypt.....	1,070	675	1,745
Jordan.....	1	-	1
Lebanon.....	-	-	-
Saudi Arabia.....	148	230	378
United Arab Emirates.....	2	14	16
India.....	1	-	1
Sri Lanka.....	-	-	-
Korean Republic.....	-	-	-
Philippines.....	-	-	-
Other.....	29	28	57
WHEAT, INCLUDING SPELT OR MESLIN, UNMILLED, NOT DONATED FOR RELIEF OR CHARITY (1306540) (1,000 bu.)			
Total.....	89,513	82,667	172,180
Mexico.....	2,079	4,579	6,658
Jamaica.....	-	50	50
Haiti.....	-	598	598
Honduras.....	155	69	224
El Salvador.....	-	184	184
Costa Rica.....	215	441	656
Panama.....	107	315	422
Venezuela.....	783	2,526	3,309
Colombia.....	3,304	3,445	6,749
Ecuador.....	955	1,722	2,677
Peru.....	1,072	895	1,967
Brazil.....	3,087	1,517	4,604
Bolivia.....	-	979	979
Chile.....	3,105	996	4,101
Surinam.....	-	159	159
Portugal.....	1,091	2,314	3,405
German Democratic Republic.....	-	1,725	1,725
Poland.....	-	1,076	1,076
U.S.S.R.....	4,332	12,240	16,572
Morocco.....	760	2,203	2,963
Egypt.....	6,493	7,447	13,940
Israel.....	-	1,102	1,102
Iraq.....	1,903	522	2,425
Iran.....	-	-	-
Pakistan.....	587	2,058	2,645
Bangladesh.....	5,873	1,110	6,983
China (Mainland).....	6,541	1,176	7,717
Korean Republic.....	6,497	7,001	13,498
Indonesia.....	3,645	3,621	7,266
Philippines.....	1,025	1,918	2,943
Nigeria.....	4,115	2,490	6,605
Other.....	31,789	16,189	47,978

- Represents zero.

Table 5. PRODUCTION AND EXPORTS OF WHEAT FLOUR

(Quantity in 1,000 cwt.; value in thousands of dollars)

Product	Wheat flour production		Export of domestic merchandise ¹		Percent exports to manufacturers' production	
	Quantity	Value	Quantity	Value	Quantity	Value
FEBRUARY 1980						
Wheat flour.....	22,624	(NA)	1,593	19,423	7.0	(NA)
JANUARY 1980						
Wheat flour.....	24,654	(NA)	1,093	13,858	4.4	(NA)

Comparison of Standard Industrial Classification codes, Schedule B export numbers, and TSUSA import numbers is as follows:

<u>Domestic output</u>	<u>Exports</u>	<u>Imports</u>
20411	131.4010-131.4040	-

(NA) Not available.

¹Source: Bureau of the Census Report FT-410, U.S. Exports, Commodity by Country.

DESCRIPTION OF SURVEY

Scope of Survey—This survey covers firms engaged in the production of wheat and rye flour.

Sampling Description—The data shown in this publication were collected on Bureau of the Census monthly Form M20A, **Flour Milling Products**. The aggregates published in this report have been compiled from a sample of approximately 250 respondents, accounting for 98 percent of the total U.S. production of flour mill products. The universe for this sample was the 1958 Census of Manufactures. The reporting panel consists of mills with a daily capacity of over 400 sacks of flour. Approximately 200 small establishments are in the nonmail universe. Their production data are estimated based upon their 1958 Census of Manufactures report. The monthly reporting panel was selected by arraying the reporting units in descending order by size for each product line, then choosing a sufficient number of respondents (beginning with the largest) to yield a coverage of approximately 98 percent for each product line.

Survey Error—The figures for the current month include estimates for respondents in the reporting panel whose reports were not received in time for tabulation, as well as for 200 small respondents excluded from the mail panel. Missing figures for companies in the reporting panel are "imputed from the month-to-month movements shown by reporting firms. The overall imputation rate is generally limited to 12 percent, including about 2 percent for small respondents excluded from the monthly reporting panel. Individual items with imputation rates greater than 12 percent are footnoted.

The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse, both because the actual monthly movements for nonrespondents may or may not closely agree with the imputed movements and because the estimates for nonpanel cases may or may not reflect their current activity. The probable difference between the actual and imputed figures is unknown. The degree of uncertainty regarding the accuracy of the data, however, increases as the percentage of imputation increases. Figures with imputation rates above 12 percent, particularly, should be used with caution.

Revision to Previous Period Data—Statistics for previous months may be revised due to receipt of corrected data from respondents, including late reports for which imputations were previously made as described above, and other corrections. Figures which have been revised by more than 5 percent from previously published figures are indicated by footnotes.

Reporting Period Adjustment—Since January 1975, the data have been adjusted for the number of working days in the reporting period in order to compensate for differences in individual company reporting patterns, i.e., calendar month, 4-week, 5-week periods.

Seasonal Adjustment—This report presents seasonally adjusted data in table 1A for selected series shown in table 1B.

The data were seasonally adjusted using the X-11 variant of the Bureau of the Census Method II seasonal adjustment program. This seasonal adjustment program is a ratio-to-moving average method. The seasonal adjustment program largely eliminates the effect of seasonal variations (intra-year variations repeated constantly from year to year) within the series. The seasonally adjusted data usually provide a better measure than the not seasonally adjusted (original) data of the month-to-month variations which are due to factors other than seasonal pattern.

EXPLANATION OF TERMS

Units of Quantity—Grain ground is measured in bushels of 60 pounds for wheat, and 56 pounds for rye. Flour production is measured in sacks of 100 pounds.

Capacity—Based on replies to the question, "What is the maximum quantity of flour that can be produced in your mill in one day if operated for 24 hours?", the capacity of idle mills is included until the mills are reported to be destroyed, dismantled, or abandoned.

Grain—Represents the purchased weight of grain ground, including the weight of foreign material (dockage).

Millfeed—Includes bran, middlings, shorts, and other milling byproducts intended principally for use as feed materials.

Wheat Flour—Includes whole wheat flour, farina, industrial flour, and durum flour.

Stocks of Flour (Quarterly)—Represents mill stocks in all positions, sold and unsold.

COMPARISON OF EXPORT, IMPORT, AND DOMESTIC OUTPUT DATA

The Standard Industrial Classification (SIC) system used for domestic output and the statistical export and import commodity classifications were developed independently and are based on somewhat differing systems of classification. This results in considerable difficulty in comparing the three types of data for many commodity areas. The domestic output classification is based on type of industry; whereas, the export and import classification system is more materials oriented. Aside from the differences in the basic commodity classifications, there are additional problems involving import data, since there are a substantial number of imported commodities which are not produced in the United States or which are produced only in very small quantities and which, therefore, have no comparable domestic output classification. The relationships shown in this report should be considered only as approximations, since, in addition to those mentioned above, there are also the following problems affecting the comparability of the three sets of data:

a. *Valuation*—There are different methods of valuation for the three types of data.

Domestic Output—Valued at the point of production. It includes the net sales price, f.o.b. plant, after discounts and allowances, exclusive of freight charges and excise taxes.

Exports—Valued at the point of exportation. It includes the selling price, or cost if not sold, and inland freight, insurance, and other charges to the export point.

Imports—Valued at the first port of entry in the United States. It includes c.i.f. (cost, insurance, and freight), duty, and other charges to the import point.

b. *Duplication in Quantity and Value of Output*—Because producers' shipments of some commodities may be used as materials for incorporation into other commodities, combinations of data for such commodities may contain a certain amount of duplication. Thus, percentages of exports to output or imports to apparent consumption (output plus imports minus exports) at four-digit or broader levels may be understated. Where duplication is known to be substantial, the output data are appropriately noted in the table.

c. *Low-Valued Export and Import Transactions*—Commodity information is not shown for individual imports valued under \$251. For exports, commodity information is not reported for shipments individually valued under \$501, effective March 1979 and for shipments valued under \$251 prior to March 1979. This is believed to have only negligible effect on the statistics for most commodities.

d. *Manufacturers' Shipments, Not Specified by Kind*—The value of manufacturers' shipments at the four-digit industry level often includes a small amount which is not distributed among the individual five-digit product classes. Export and import percentages at the more detailed levels might, therefore, be slightly overstated.

e. *Time Lag Between Output and Exports*—There will be a lag between the time a commodity is produced or shipped by the producer and the time it is actually exported, especially when intermediaries (wholesalers, exporters, etc.) are involved. Ordinarily, this type of discrepancy is insignificant in annual figures.

f. *"Direct" vs "Total" Commodity Export and Imports*—Export and import data do not include materials which are incorporated into other more finished products and exported or imported in finished form. Thus, by showing only direct exports and imports, the relation of exports to output and imports to apparent consumption for intermediate products is considerably understated.

g. *Used Commodities*—With a few exceptions, used or rebuilt commodities are classified in the same import or export codes as is new merchandise. Percentages are thus overstated to the extent that used or rebuilt products are significant in trade.

h. *Geographic Area of Coverage*—Import and export data reflect the movement of merchandise into and out of the U.S. customs territory (the 50 States, the District of Columbia, and Puerto Rico). They do not include movements between the United States and its possessions. Domestic output (shipments) data exclude Puerto Rico and other outlying areas.

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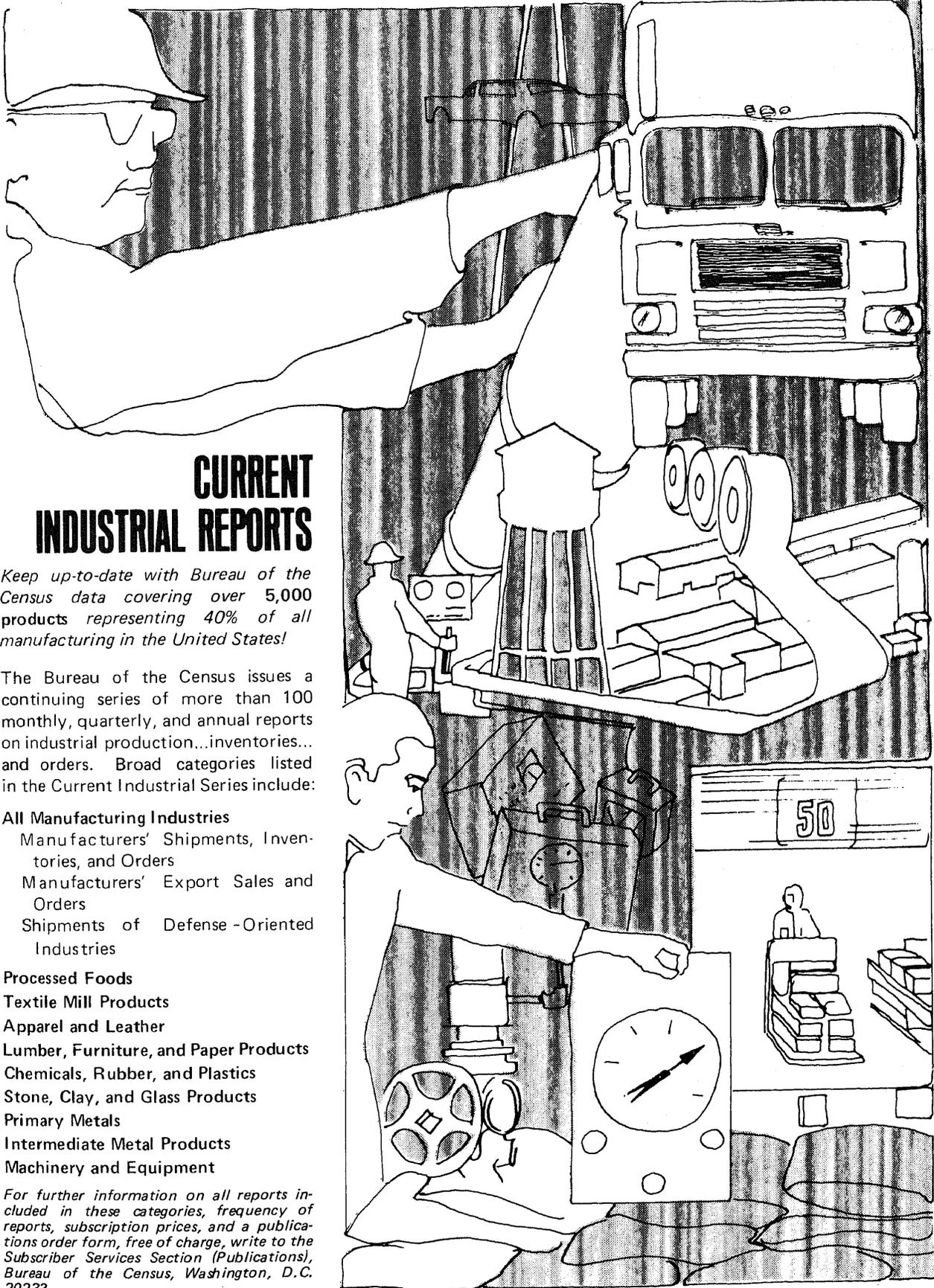
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