

Inorganic Fertilizer Materials and Related Products: 2003

Issued December 2004

Summary

MQ325B(03)-5

Current Industrial Reports

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SUMMARY OF FINDINGS. United States production of sulfuric acid in 2003 totaled 41,204,740 thousand

short tons (100 percent H₂SO₄), 3.6 percent above the 2002 figure of 39,759,732 thousand short tons.

Production of synthetic ammonia, nitric acid, and ammonium compounds decreased 10.0 percent to 31,034,310 thousand short tons in 2003, from 34,475,243 thousand short tons in 2002. Phosphoric acid production increased 1.6 percent to 12,485,136 thousand short tons in 2003, from 12,288,807 thousand short tons in 2002.

Production of superphosphate and other phosphatic fertilizer materials for 2003 increased 1.6 percent to 8,895,315 thousand short tons (100 percent P₂O₅), from 8,756,438 thousand short tons (100 percent P₂O₅) in 2002.

For general CIR information, explanation of general terms and historical note, see the appendix.

Address inquiries concerning these data to Primary Goods Industries Branch, Manufacturing and Construction Division (MCD), Washington, DC 20233-6900, or call Nancy Higgins, 301-763-4768.

For mail or fax copies of this publication, please contact the Information Services Center, MCD, Washington, DC 20233-6900, or call 301-457-4673.

U S C E N S U S B U R E A U

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Economics and Statistics Administration
U.S. CENSUS BUREAU

Table 1. Shipments and Production of Principal Fertilizer Materials: 1999 to 2003
 [Quantity in thousands of short tons. Value in millions of dollars]

Product code	Product description	Year	Total production	Total shipments including interplant transfers	
				Quantity	Value (f.o.b. plant)
3253111120	Ammonia, synthetic anhydrous 1/.....	2003.....	11,539		912
		2002.....	13,863	r/ 5,218	r/ 765
		2001.....	12,227	4,894	904
		2000.....	15,809	6,337	915
		1999.....	17,337	(X)	(X)
3253111201	Ammonium nitrate, original melt liquor 2/.....	2003.....	6,321		572
		2002.....	7,096	r/ 4,074	r/ 534
		2001.....	6,431	3,317	551
		2000.....	7,979	4,146	541
		1999.....	7,630	(X)	(X)
3253111240	Ammonium sulfate 1/.....	2003.....	2,871		203
		2002.....	2,945	r/ 2,506	r/ 216
		2001.....	2,588	2,353	249
		2000.....	2,808	2,082	103
		1999.....	2,875	(X)	(X)
3253114100	Urea (100 percent).....	2003.....	r/ 6,375		792
		2002.....	7,758	r/ 5,564	743
		2001.....	6,702	4,426	647
		2000.....	7,682	4,682	646
		1999.....	8,907	(X)	(X)
3253111111	Nitric acid (100 percent).....	2003.....	r/ 7,439		247
		2002.....	7,651	1,686	212
		2001.....	7,074	1,868	174
		2000.....	8,708	2,344	280
		1999.....	8,945	(X)	(X)
3253121100	Phosphoric acid (100 percent P2O5).....	2003.....	12,485		1,406
		2002.....	12,289	r/ 3,837	r/ 1,129
		2001.....	11,546	3,384	937
		2000.....	12,492	3,952	1,126
		1999.....	13,708	(X)	(X)
3251881100	Sulfuric acid, gross (100 percent).....	2003.....	41,205		606
		2002.....	39,760	11,891	593
		2001.....	40,064	10,940	557
		2000.....	43,643	11,930	572
		1999.....	44,756	(X)	(X)
3253124100	Superphosphates and other fertilizer materials (100 percent P2O5).....	2003.....	8,895		2,730
		2002.....	8,756	8,419	2,394
		2001.....	8,109	8,055	2,232
		2000.....	8,899	8,822	2,649
		1999.....	9,133	(X)	(X)

r/Revised by 5 percent or more from previously published data. X Not applicable.

1/Excludes data for byproduct ammonia liquor and ammonium sulfate published by the Department of Energy.

2/Represents total amount of original melt liquor produced for all purposes.

Table 2a. Production, Shipments, Consumption and Stocks of Fertilizer Materials and Related Products: 2003
(Quantity in short tons. Value in thousands of dollars)

Product code	Total production	Total shipments including interplant transfers		Stocks 1/	
		Quantity	Value		
TOTAL					
Ammonia:					
3253111120	Synthetic, anhydrous (100 percent).....	11,538,695	4,297,933	912,438	(X)
3253111121	Fertilizer use.....	10,176,201	3,780,191	807,962	(X)
3253111131	Other uses.....	1,362,494	517,742	104,476	(X)
Ammonium nitrate (100 percent):					
3253111201	Original melt liquor 2/.....	6,320,568	3,744,899	571,595	(X)
3253111211	Consumed in the manufacture of other nitrogen solutions (e.g., CAN17, AN20, AAN).....	89,259	(X)	(X)	(X)
3253111216	Liquor consumed in the manufacture of urea-ammonium nitrate solutions.....	2,746,030	(X)	(X)	(X)
3253111221	High density prill and granular.....	1,436,947	1,395,486	206,975	(X)
3253111226	Low density prill and grained.....	1,600,094	1,610,824	256,927	(X)
3253111231	All other (e.g., liquor sales, etc.).....	448,238	362,621	49,458	(X)
3253111240	Ammonium sulfate (100 percent).....	2,870,717	2,288,118	202,665	(X)
3253111241	Synthetic (direct synthesis from sulfuric acid and ammonia).....	(D)	(D)	(D)	(X)
3253111246	Byproduct 3/.....	(D)	(D)	(D)	(X)
Nitrogen solutions, including mixtures (100 percent N).....					
3253111250	Ammonium nitrate/urea solutions.....	2,865,819	2,797,029	639,344	(X)
3253111251	All other solutions 4/.....	2,770,461	2,715,693	627,270	(X)
3253111256		95,358	81,336	12,074	(X)
3253111111	Nitric acid (100 percent) 5/.....	7,438,511	2,208,270	247,087	(X)
3253114101	Urea original melt liquor.....	6,374,705	4,427,245	792,458	(X)
3253114111	Consumed in the manufacture of urea-ammonium nitrate solutions.....	2,164,819	240,664	57,238	(X)
3253114121	Prills.....	1,086,469	1,013,123	190,412	(X)
3253114131	Granular.....	2,978,769	3,034,164	492,574	(X)
3253114141	All other (liquor sales, melamine, feedstock, other).....	144,648	139,294	52,234	(X)
3253121100	Phosphoric acid (100 percent P2O5).....	12,485,136	4,160,291	1,406,372	(X)
By use:					
3253121211	Fertilizer.....	11,626,354	3,659,888	1,127,734	(X)
3253121222	Feed and other 6/.....	858,782	500,403	278,638	(X)
By grade:					
3253121311	Ortho (less than 65 percent P2O5).....	10,909,406	2,752,735	807,728	(X)
3253121321	Super (more than 65 percent P2O5) 6/.....	1,575,730	1,407,556	598,644	(X)
3253124100	Superphosphate and other phosphatic fertilizer materials:				
	Gross weight.....	18,509,592	16,368,558	2,625,575	(X)
	Nitrogen content.....	2,811,458	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	8,895,315	8,978,268	2,729,868	(X)
3253124111	Normal and enriched:				
	Gross weight.....	(D)	(D)	(D)	(X)
	Nitrogen content.....	(X)	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	(D)	(D)	(D)	(X)
3253124121	Concentrated:				
	Gross weight.....	(D)	(D)	(D)	(X)
	Nitrogen content.....	(X)	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	(D)	(D)	(D)	(X)

Table 2a. Production, Shipments, Consumption and Stocks of Fertilizer Materials and Related Products: 2003
(Quantity in short tons. Value in thousands of dollars)

Product code		Total production	Total shipments including interplant transfers		Stocks 1/
			Quantity	Value	
3253124131	Monoammonium phosphates:				
	Gross weight.....	4,956,591	4,881,789	810,061	(X)
	Nitrogen content.....	606,498	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	2,630,661	2,719,099	777,431	(X)
3253124211	Diammonium phosphates:				
	Gross weight.....	11,823,030	9,996,671	1,607,559	(X)
	Nitrogen content.....	2,122,870	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	5,531,867	5,566,140	1,753,093	(X)
3253124222	Other ammonium phosphates and other phosphatic fertilizer materials:				
	Gross weight.....	(D)	(D)	(D)	(X)
	Nitrogen content.....	82,090	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	(D)	(D)	(D)	(X)
3251881100	Sulfuric acid (100 percent): 5/				
	Total gross.....	41,204,740	11,634,868	606,408	(X)
	By feedstock:				
3251881111	Elemental sulfur.....	35,429,013	6,949,047	356,757	(X)
3251881121	Smelting metallic sulfide ore.....	2,431,520	2,346,018	62,731	(X)
3251881131	Decomposition of alkylation and other spent acid.....	2,550,404	1,779,715	158,477	(X)
3251881141	Other.....	793,803	560,088	28,443	(X)
	By grade:				
3251881212	Oleum grades.....	1,575,842	1,095,937	50,942	(X)
3251881231	Other than oleum grades.....	39,628,898	10,538,931	555,466	(X)
3251881311	Spent acid fortified in contact units and included in above production data.....	(D)	(X)	(X)	(X)
	Total new acid 7/.....	38,654,336	(X)	(X)	(X)
FOURTH QUARTER					
Ammonia:					
3253111120	Synthetic, anhydrous (100 percent).....	a/ 3,140,302	b/ 1,216,064	b/ 263,094	b/r/ 263,689
3253111121	Fertilizer use.....	a/ 2,828,684	b/r/ 1,114,026	b/r/ 240,243	b/r/ 211,744
3253111131	Other uses.....	b/r/ 311,618	c/ 102,038	(S)	b/r/ 51,945
Ammonium nitrate (100 percent):					
3253111201	Original melt liquor 2/.....	a/ 1,753,181	b/ 1,011,257	b/r/ 158,759	a/ 134,495
3253111211	Consumed in the manufacture of other nitrogen solutions (e.g., CAN17, AN20, AAN).....	30,021	(X)	(X)	(D)
3253111216	Liquor consumed in the manufacture of urea-ammonium nitrate solutions.....	a/ 757,026	(X)	(X)	a/ 26,157
3253111221	High density prill and granular.....	a/ 461,730	a/ 410,783	a/ 61,976	a/r/ 51,786
3253111226	Low density prill and grained.....	b/r/ 406,794	c/ 429,144	c/ 71,308	b/r/ 39,269
3253111231	All other (e.g., liquor sales, etc.).....	b/r/ 97,610	b/r/ 72734r/	b/r/ 10,004	(D)
3253111240	Ammonium sulfate (100 percent).....	761,968	608,802	58,247	130,300
3253111241	Synthetic (direct synthesis from sulfuric acid and ammonia).....	(D)	(D)	(D)	(D)
3253111246	Byproduct 3/.....	(D)	(D)	(D)	(D)
Nitrogen solutions, including mixtures (100 percent N):					
3253111250	Ammonium nitrate/urea solutions.....	a/ 777,432	a/r/ 776,952	a/ 188,713	a/r/ 98,232
3253111256	All other solutions 4/.....	b/r/ 31,963	b/r/ 27,858	b/r/ 4,310	r/ 7,313
3253111111	Nitric acid (100 percent) 5/.....	b/ 2,113,850	c/ 645,869	(S)	(X)
3253114101	Urea original melt liquor.....	a/ 1,618,492	a/r/ 1,104,834	a/r/ 205,342	133,445

Table 2a. Production, Shipments, Consumption and Stocks of Fertilizer Materials and Related Products: 2003
(Quantity in short tons. Value in thousands of dollars)

Product code		Total production	Total shipments including interplant transfers		Stocks 1/
			Quantity	Value	
3253114111	Consumed in the manufacture of urea-ammonium nitrate solutions.....	a/r/ 627,258	77,811	19,757	(D)
3253114121	Prills.....	a/r/ 198,091	a/r/ 159,035	b/r/ 34,648	b/ 54,046
3253114131	Granular.....	a/r/ 735,993	a/ 815,259	a/ 134,752	a/ 65,381
3253114141	All other (liquor sales, melamine, feedstock, other).....	57,150	52,729	16,185	(D)
3253121100	Phosphoric acid (100 percent P2O5).....	a/ 3,234,848	r/ 1,100,448	c/ 359,727	a/ 188,071
	By use:				
3253121211	Fertilizer.....	a/ 3,003,487	r/ 972,147	c/ 288,896	a/ 180,397
3253121222	Feed and other 6/.....	231,361	128,301	c/ 70,831	7,674
	By grade:				
3253121311	Ortho (less than 65 percent P2O5).....	a/ 2,838,454	732,748	c/ 203,350	a/ 165,210
3253121321	Super (more than 65 percent P2O5) 6/.....	r/ 396,394	367,700	c/ 156,377	22,861
3253124100	Superphosphate and other phosphatic fertilizer materials:				
	Gross weight.....	4,969,715	r/ 4,205,898	706,252	r/ 510,176
	Nitrogen content.....	r/ 798,478	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	2,463,285	r/ 2,436,420	r/ 770,048	(X)
3253124111	Normal and enriched:				
	Gross weight.....	(D)	(D)	(D)	(D)
	Nitrogen content.....	(X)	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	(D)	(D)	(D)	(X)
3253124121	Concentrated:				
	Gross weight.....	(D)	(D)	(D)	(D)
	Nitrogen content.....	(X)	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	(D)	(D)	(D)	(X)
3253124131	Monoammonium phosphates:				
	Gross weight.....	a/r/ 1,136,430	a/ 1,059,111	b/ 201,544	102,072
	Nitrogen content.....	a/ 163,537	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	a/ 681,265	a/ 698,726	200,214	(X)
3253124211	Diammonium phosphates:				
	Gross weight.....	a/ 3,352,860	a/ 2,749,463	b/ 441,565	r/ 286,334
	Nitrogen content.....	a/r/ 610,232	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	a/ 1,565,648	a/ 1,542,860	a/ 508,467	(X)
3253124222	Other ammonium phosphates and other phosphatic fertilizer materials:				
	Gross weight.....	(D)	(D)	(D)	(D)
	Nitrogen content.....	24,709	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	(D)	(D)	(D)	(X)
3251881100	Sulfuric acid (100 percent): 5/				
	Total gross.....	a/ 10,633,369	b/r/ 2,974,747	b/r/ 153,846	a/ 397,881
	By feedstock:				
3251881111	Elemental sulfur.....	a/ 9,197,503	b/r/ 1,814,549	b/r/ 92,815	(X)
3251881121	Smelting metallic sulfide ore.....	625,348	r/ 588,160	r/ 15,200	(X)
3251881131	Decomposition of alkylation and other spent acid.....	a/r/ 627,669	a/ 432,124	b/ 38,800	(D)
3251881141	Other.....	a/ 182,849	a/ 139,914	b/ 7,031	(X)
	By grade:				
3251881212	Oleum grades.....	b/r/ 399,903	b/r/ 263,644	b/r/ 12,388	b/ 25,792
3251881231	Other than oleum grades.....	a/ 10,233,466	b/r/ 2,711,103	b/r/ 141,458	a/r/ 372,089
3251881311	Spent acid fortified in contact units and included in above production data.....	(D)	(X)	(X)	(D)
	Total new acid 7/.....	10,005,700	(X)	(X)	(X)

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(Quantity in short tons. Value in thousands of dollars)

Product code	Total production	Total shipments including interplant transfers		Quantity	Value	Stocks 1/		
		Quantity	Value					
THIRD QUARTER								
Ammonia:								
3253111120	Synthetic, anhydrous (100 percent)..... a/	2,593,978	b/r/	826,459	b/r/	176,263	b/	377,671
3253111121	Fertilizer use..... a/	2,298,507	b/r/	733,398	b/r/	157,688	b/	320,309
3253111131	Other uses..... b/r/	295,471	c/	93,061	c/r/	18,575	b/r/	57,362
Ammonium nitrate (100 percent):								
3253111201	Original melt liquor 2/..... a/	1,476,481	b/r/	787,233	b/r/	128,853	a/r/	138,406
3253111211	Consumed in the manufacture of other nitrogen solutions (e.g., CAN17, AN20, AAN).....	21,904		(X)		(X)		(D)
3253111216	Liquor consumed in the manufacture of urea-ammonium nitrate solutions..... a/	722,467		(X)		(X)	a/	38,349
3253111221	High density prill and granular..... a/r/	198,826	a/r/	191,550	b/r/	36,139	a/r/	33,141
3253111226	Low density prill and grained..... b/r/	391,801	c/	411,847	c/	67,009	c/r/	34,004
3253111231	All other (e.g., liquor sales, etc.)..... b/r/	141,483	b/	86,919	b/	11,637		(D)
3253111240	Ammonium sulfate (100 percent).....	657,420		479,566		44,249		107,325
3253111241	Synthetic (direct synthesis from sulfuric acid and ammonia).....	(D)		(D)		(D)		7,100
3253111246	Byproduct 3/.....	(D)		(D)		(D)		100,225
Nitrogen solutions, including mixtures (100 percent N).....								
3253111250	Ammonium nitrate/urea solutions..... a/	770,560		742,435	r/	167,253	r/	95,948
3253111251	All other solutions 4/..... b/r/	750,860	a/	723,999	a/r/	164,567	a/r/	88,076
3253111256		19,700	b/r/	18,436	b/r/	2,686	r/	7,872
3253111111	Nitric acid (100 percent) 5/..... b/r/	1,732,951	c/r/	518,238	c/r/	57,077		(X)
3253114101	Urea original melt liquor..... a/	1,551,172	a/	1,018,926	a/	178,371	a/	160,018
3253114111	Consumed in the manufacture of urea-ammonium nitrate solutions..... a/r/	567,967		40,779		7,619		(D)
3253114121	Prills..... a/	233,446	a/	230,688	a/	42,626		(D)
3253114131	Granular..... a/	712,433	a/	712,022	a/	115,714	a/	72,892
3253114141	All other (liquor sales, melamine, feedstock, other).....	37,326		35,437		12,412		(D)
3253121100	Phosphoric acid (100 percent P2O5)..... a/	3,103,010	r/	1,025,523	c/	342,428	a/	176,915
By use:								
3253121211	Fertilizer..... a/	2,894,629	r/	902,693	c/	273,066	a/	163,797
3253121222	Feed and other 6/.....	208,381		122,830	c/	69,362		13,118
By grade:								
3253121311	Ortho (less than 65 percent P2O5)..... a/	2,716,910		672,111	c/	192,039	a/	153,081
3253121321	Super (more than 65 percent P2O5) 6/..... r/	386,100	r/	353,412	c/	150,389		23,834
3253124100	Superphosphate and other phosphatic fertilizer materials:							
	Gross weight.....	4,597,201		4,264,131		679,922		498,752
	Nitrogen content.....	686,909		(X)		(X)		(X)
	Phosphoric oxide content (100 percent P2O5).....	2,183,996		2,303,475	r/	706,731		(X)
3253124111	Normal and enriched:							
	Gross weight..... (D)			(D)		(D)		(D)
	Nitrogen content..... (X)			(X)		(X)		(X)
	Phosphoric oxide content (100 percent P2O5)..... (D)			(D)		(D)		(X)
3253124121	Concentrated:							
	Gross weight..... (D)			(D)		(D)		(D)
	Nitrogen content..... (X)			(X)		(X)		(X)
	Phosphoric oxide content (100 percent P2O5)..... (D)			(D)		(D)		(X)

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(Quantity in short tons. Value in thousands of dollars)

Product code		Total production	Total shipments including interplant transfers		Stocks 1/
			Quantity	Value	
3253124131	Monoammonium phosphates:				
	Gross weight.....	a/ 1,285,252	a/ 1,380,136	a/ 224,958	110,904
	Nitrogen content.....	a/ 141,552	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	a/ 655,226	a/ 709,789	a/ 207,847	(X)
3253124211	Diammonium phosphates:				
	Gross weight.....	a/ 2,955,858	a/ 2,594,716	b/ 414,971	295,196
	Nitrogen content.....	a/ 530,536	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	a/ 1,383,697	a/ 1,458,672	b/r/ 460,710	(X)
3253124222	Other ammonium phosphates and other phosphatic fertilizer materials:				
	Gross weight.....	(D)	(D)	(D)	(D)
	Nitrogen content.....	14,821	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	(D)	(D)	(D)	(X)
3251881100	Sulfuric acid (100 percent): 5/				
	Total gross.....	a/ 10,317,214	a/r/ 3,007,875	b/r/ 161,834	a/r/ 381,608
	By feedstock:				
	Elemental sulfur.....	a/ 8,777,649	b/r/ 1,772,043	c/r/ 92,816	(X)
	Smelting metallic sulfide ore.....	616,135	r/ 624,375	r/ 17,939	(X)
	Decomposition of alkylation and other spent acid.....	a/r/ 718,819	b/ 471,120	b/ 43,838	(D)
	Other.....	a/ 204,611	a/ 140,337	b/ 7,241	(X)
	By grade:				
	Oleum grades.....	b/r/ 400,701	b/r/ 303,117	b/r/ 14,701	b/r/ 27,035
	Other than oleum grades.....	a/ 9,916,513	a/r/ 2,704,758	b/r/ 147,133	a/r/ 354,573
	Spent acid fortified in contact units and included in above production data.....	(D)	(X)	(X)	(D)
	Total new acid 7/.....	9,598,395	(X)	(X)	(X)
SECOND QUARTER					
Ammonia:					
3253111120	Synthetic, anhydrous (100 percent).....	a/ 3,068,644	c/ 1,156,844	c/r/ 240,228	b/r/ 322,581
3253111121	Fertilizer use.....	a/ 2,701,860	c/ 1,014,853	c/r/ 211,935	b/ 270,598
3253111131	Other uses.....	b/r/ 366,784	b/r/ 141,991	c/r/ 28,293	c/r/ 51,983
Ammonium nitrate (100 percent):					
3253111201	Original melt liquor 2/.....	a/ 1,585,358	b/r/ 992,362	b/r/ 151,678	b/r/ 155,379
3253111211	Consumed in the manufacture of other nitrogen solutions (e.g., CAN17, AN20, AAN).....	14,168	(X)	(X)	(D)
3253111216	Liquor consumed in the manufacture of urea-ammonium nitrate solutions.....	a/r/ 708,441	(X)	(X)	b/ 48,877
3253111221	High density prill and granular.....	a/ 343,471	a/ 399,942	a/ 57,014	a/r/ 34,471
3253111226	Low density prill and grained.....	b/r/ 410,805	b/ 391,436	c/ 61,652	b/ 46,862
3253111231	All other (e.g., liquor sales, etc.).....	b/r/ 108,473	b/r/ 85,290	b/r/ 14,497	(D)
3253111240	Ammonium sulfate (100 percent).....	736,611	565,270	49,409	102,467
3253111241	Synthetic (direct synthesis from sulfuric acid and ammonia).....	(D)	(D)	(D)	11,154
3253111246	Byproduct 3/.....	(D)	(D)	(D)	91,313
Nitrogen solutions, including mixtures (100 percent N):					
3253111250	Ammonium nitrate/urea solutions.....	a/ 713,056	a/ 718,831	a/r/ 159,453	a/r/ 90,642
3253111256	All other solutions 4/.....	b/r/ 22,329	b/r/ 17,516	b/r/ 2,602	9,409
3253111111	Nitric acid (100 percent) 5/.....	b/r/ 1,834,860	c/r/ 527,571	c/r/ 59,779	(X)
3253114101	Urea original melt liquor.....	a/r/ 1,699,114	a/ 1,186,756	a/ 213,598	186,851

Continued

Table 2a. Production, Shipments, Consumption and Stocks of Fertilizer Materials and Related Products: 2003
(Quantity in short tons. Value in thousands of dollars)

Product code			Total production	Total shipments including interplant transfers		Stocks 1/
				Quantity	Value	
3253114111	Consumed in the manufacture of urea-ammonium nitrate solutions.....	r/	543,956	63,961	16,163	(D)
3253114121	Prills.....	a/	321,383	a/ 298,412	a/r/ 56,099	(D)
3253114131	Granular.....	a/	804,510	a/ 792,259	a/ 127,544	a/ 70,013
3253114141	All other (liquor sales, melamine, feedstock, other).....		29,265	32,124	13,792	(D)
3253121100	Phosphoric acid (100 percent P2O5).....	a/	3,008,735	r/ 1,015,879	c/r/ 356,606	a/ 176,506
	By use:					
3253121211	Fertilizer.....	a/	2,777,257	r/ 876,163	c/ 280,727	a/ 163,025
3253121222	Feed and other 6/.....		231,478	139,716	c/ 75,879	13,481
	By grade:					
3253121311	Ortho (less than 65 percent P2O5).....	a/	2,638,928	667,739	c/ 209,672	a/ 158,490
3253121321	Super (more than 65 percent P2O5) 6/.....	r/	369,807	348,140	c/ 146,934	18,016
3253124100	Superphosphate and other phosphatic fertilizer materials:					
	Gross weight.....		4,398,397	r/ 3,886,072	622,896	643,523
	Nitrogen content.....		649,594	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....		2,098,309	r/ 2,045,690	r/ 616,235	(X)
3253124111	Normal and enriched:					
	Gross weight.....		(D)	(D)	(D)	(D)
	Nitrogen content.....		(X)	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....		(D)	(D)	(D)	(X)
3253124121	Concentrated:					
	Gross weight.....		(D)	(D)	(D)	(D)
	Nitrogen content.....		(X)	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....		(D)	(D)	(D)	(X)
3253124131	Monoammonium phosphates:					
	Gross weight.....	a/	1,278,022	a/ 1,256,795	a/ 200,637	167,531
	Nitrogen content.....	a/	151,967	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	a/	655,090	a/ 670,056	a/ 193,561	(X)
3253124211	Diammonium phosphates:					
	Gross weight.....	a/	2,712,731	a/ 2,222,226	b/ 367,666	385,755
	Nitrogen content.....	a/	480,619	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	a/r/	1,275,625	a/r/ 1,192,087	b/r/ 371,396	(X)
3253124222	Other ammonium phosphates and other phosphatic fertilizer materials:					
	Gross weight.....		(D)	(D)	(D)	(D)
	Nitrogen content.....		17,008	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....		(D)	(D)	(D)	(X)
3251881100	Sulfuric acid (100 percent): 5/					
	Total gross.....	a/	10,185,056	b/r/ 2,859,379	b/r/ 152,371	a/r/ 432,996
	By feedstock:					
3251881111	Elemental sulfur.....	a/	8,654,841	a/r/ 1,688,409	b/r/ 86,301	(X)
3251881121	Smelting metallic sulfide ore.....		592,449	r/ 517,989	r/ 13,813	(X)
3251881131	Decomposition of alkylation and other spent acid.....	a/r/	730,663	a/ 503,109	b/ 44,843	(D)
3251881141	Other.....	a/	207,103	a/ 149,872	b/ 7,414	(X)
	By grade:					
3251881212	Oleum grades.....	b/r/	359,167	b/r/ 242,329	b/r/ 11,331	b/ 30,035
3251881231	Other than oleum grades.....	a/	9,825,889	b/r/ 2,617,050	b/r/ 141,040	a/r/ 402,961
3251881311	Spent acid fortified in contact units and included in above production data.....		(D)	(X)	(X)	(D)
	Total new acid 7/.....		9,454,393	(X)	(X)	(X)

Table 2a. Production, Shipments, Consumption and Stocks of Fertilizer Materials and Related Products: 2003
(Quantity in short tons. Value in thousands of dollars)

Product code	Total production	Total shipments including interplant transfers		Quantity	Value	Stocks 1/		
		Quantity	Value					
FIRST QUARTER								
Ammonia:								
3253111120	Synthetic, anhydrous (100 percent)..... a/	2,735,771	c/r/	1,098,566	c/r/	232,853	b/r/	309,632
3253111121	Fertilizer use..... a/	2,347,150	c/r/	917,914	c/r/	198,096	b/	263,475
3253111131	Other uses..... b/r/	388,621	b/r/	180,652	b/r/	34,757	c/r/	46,157
Ammonium nitrate (100 percent):								
3253111201	Original melt liquor 2/..... a/	1,505,548	b/	954,047	b/	132,305	a/r/	215,657
3253111211	Consumed in the manufacture of other nitrogen solutions (e.g., CAN17, AN20, AAN).....	23,166		(X)		(X)		(D)
3253111216	Liquor consumed in the manufacture of urea-ammonium nitrate solutions..... a/r/	558,096		(X)		(X)	b/	58,869
3253111221	High density prill and granular.....	432,920	a/	393,211	a/	51,846		94,737
3253111226	Low density prill and grained..... b/r/	390,694	b/r/	378,397	b/	56,958	c/	36,717
3253111231	All other (e.g., liquor sales, etc.)..... b/r/	100,672	b/	117,678	b/	13,320		(D)
3253111240	Ammonium sulfate (100 percent).....	714,718		634,480		50,760		128,206
3253111241	Synthetic (direct synthesis from sulfuric acid and ammonia).....	(D)		(D)		(D)		11,667
3253111246	Byproduct 3/.....	(D)		(D)		(D)		116,539
Nitrogen solutions, including mixtures (100 percent N).....								
3253111250	Ammonium nitrate/urea solutions..... a/	529,113	a/	495,911	a/r/	114,537	a/r/	136,016
3253111256	All other solutions 4/..... b/r/	21,366	b/r/	17,526	b/r/	2,476		9,545
3253111111	Nitric acid (100 percent) 5/..... b/r/	1,756,850	c/r/	516,592	c/r/	58,153		(X)
3253114101	Urea original melt liquor..... a/	1,505,927	a/	1,116,729	a/	195,147		192,605
3253114111	Consumed in the manufacture of urea-ammonium nitrate solutions..... r/	425,638		58,113		13,699		(D)
3253114121	Prills..... a/	333,549		324,988	a/r/	57,039		(D)
3253114131	Granular..... a/	725,833	a/	714,624	a/	114,564	a/	64,211
3253114141	All other (liquor sales, melamine, feedstock, other)..... r/	20,907		19,004		9,845		(D)
3253121100	Phosphoric acid (100 percent P2O5)..... a/	3,138,543	r/	1,018,441	c/r/	347,611	a/	174,043
By use:								
3253121211	Fertilizer..... a/	2,950,981	r/	908,885	c/	285,045	a/	165,800
3253121222	Feed and other 6/.....	187,562		109,556	c/	62,566	r/	8,243
By grade:								
3253121311	Ortho (less than 65 percent P2O5)..... a/	2,715,114	r/	680,137	b/r/	202,667	a/	150,536
3253121321	Super (more than 65 percent P2O5) 6/..... r/	423,429		338,304	c/	144,944		23,507
3253124100	Superphosphate and other phosphatic fertilizer materials:							
	Gross weight.....	4,544,279	r/	4,012,457		616,505		546,165
	Nitrogen content.....	676,477		(X)		(X)		(X)
	Phosphoric oxide content (100 percent P2O5).....	2,149,725	r/	2,192,683	r/	636,854		(X)
3253124111	Normal and enriched:							
	Gross weight..... (D)			(D)		(D)		(D)
	Nitrogen content..... (X)			(X)		(X)		(X)
	Phosphoric oxide content (100 percent P2O5)..... (D)			(D)		(D)		(X)
3253124121	Concentrated:							
	Gross weight..... (D)			(D)		(D)		(D)
	Nitrogen content..... (X)			(X)		(X)		(X)
	Phosphoric oxide content (100 percent P2O5)..... (D)			(D)		(D)		(X)

Table 2a. Production, Shipments, Consumption and Stocks of Fertilizer Materials and Related Products: 2003
(Quantity in short tons. Value in thousands of dollars)

Product code		Total production	Total shipments including interplant transfers		Stocks 1/
			Quantity	Value	
3253124131	Monoammonium phosphates:				
	Gross weight.....	a/ 1,256,887	a/ 1,185,747	a/ 182,922	173,738
	Nitrogen content.....	a/ 149,442	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	a/ 639,080	a/ 640,528	a/ 175,809	(X)
3253124211	Diammonium phosphates:				
	Gross weight.....	a/ 2,801,581	a/ 2,430,266	b/ 383,357	a/ 213,242
	Nitrogen content.....	a/ 501,483	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	a/ 1,306,897	a/ 1,372,521	a/r/ 412,520	(X)
3253124222	Other ammonium phosphates and other phosphatic fertilizer materials:				
	Gross weight.....	(D)	(D)	(D)	(D)
	Nitrogen content.....	25,552	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	(D)	(D)	(D)	(X)
3251881100	Sulfuric acid (100 percent): 5/				
	Total gross.....	a/ 10,069,101	b/r/ 2,792,867	b/r/ 138,357	a/r/ 410,319
	By feedstock:				
3251881111	Elemental sulfur.....	a/ 8,799,020	a/r/ 1,674,046	b/r/ 84,825	(X)
3251881121	Smelting metallic sulfide ore.....	597,588	r/ 615,494	r/ 15,779	(X)
3251881131	Decomposition of alkylation and other spent acid.....	a/r/ 473,253	a/ 373,362	b/ 30,996	(D)
3251881141	Other.....	a/ 199,240	a/ 129,965	b/ 6,757	(X)
	By grade:				
3251881212	Oleum grades.....	b/r/ 416,071	c/r/ 286,847	c/ 12,522	b/ 22,208
3251881231	Other than oleum grades.....	a/ 9,653,030	b/r/ 2,506,020	b/r/ 125,835	a/r/ 388,111
3251881311	Spent acid fortified in contact units and included in above production data.....	(D)	(X)	(X)	(D)
	Total new acid 7/.....	9,595,848	(X)	(X)	(X)

D Withheld to avoid disclosing data for individual companies. N Nitrogen content. P2O5 Phosphoric oxide content. r/Revised by 5 percent or more from previously published data. S Suppressed does not meet publication standards. X Not applicable.

1/Stocks held by producing companies include amounts held at their nonproducing locations.

2/Production represents total amount of ammonium nitrate produced including amounts for fertilizer, explosives, and other uses, and amounts consumed in manufacturing other products, such as nitrogen solutions. Stocks represent total stocks held by producing companies, including stock of original melt liquor and amounts (liquid and solid) reported as fertilizer, explosives, and other uses.

3/Excludes coke oven byproduct ammonium sulfate.

4/Solutions containing two or more products such as (a) ammonia, ammonium nitrate; (b) ammonia, urea; (c) ammonia, ammonium nitrate, urea.

5/Includes data for government-owned, contractor-operated plants.

6/Product code 3253121222 includes product codes 3253121111 and 3253121221, and product code 3253121321 includes product codes 3253121111 and 3253121321.

7/Total new acid equals total gross acid, minus fortified spent acid and sulfuric acid produced from the decomposition of alkylation acids and other spent acids and sludge acid.

Note: Percent of estimation of each item is indicated as follows: a/10 to 25 percent of this item is estimated. b/26 to 50 percent of this item is estimated. c/Over 50 percent of this item is estimated.

Table 2b. Production, Shipments, Consumption and Stocks of Fertilizer Materials and Related Products: 2002
(Quantity in short tons. Value in thousands of dollars)

Product code	Total production	Total shipments including interplant transfers		Stocks 1/	
		Quantity	Value		
TOTAL					
Ammonia:					
3253111120	Synthetic, anhydrous (100 percent).....	13,862,834	r/ 5,217,585	r/ 764,734	(X)
3253111121	Fertilizer use.....	12,475,871	r/ 4,558,647	r/ 658,622	(X)
3253111131	Other uses.....	1,386,963	658,938	106,112	(X)
Ammonium nitrate (100 percent):					
3253111201	Original melt liquor 2/.....	7,095,952	r/ 4,073,569	r/ 533,789	(X)
3253111211	Consumed in the manufacture of other nitrogen solutions (e.g., CAN17, AN20, AAN).....	98,716	(X)	(X)	(X)
3253111216	Liquor consumed in the manufacture of urea-ammonium nitrate solutions.....	2,932,211	(X)	(X)	(X)
3253111221	High density prill and granular.....	1,871,256	r/ 1,774,467	r/ 223,081	(X)
3253111226	Low density prill and grained.....	1,655,810	1,615,285	223,397	(X)
3253111231	All other (e.g., liquor sales, etc.).....	537,959	382,215	r/ 43,548	(X)
3253111240	Ammonium sulfate (100 percent).....	2,944,782	r/ 2,505,618	r/ 215,932	(X)
3253111241	Synthetic (direct synthesis from sulfuric acid and ammonia).....	(D)	(D)	(D)	(X)
3253111246	Byproduct 3/.....	(D)	(D)	(D)	(X)
Nitrogen solutions, including mixtures (100 percent N).....					
3253111250	Ammonium nitrate/urea solutions.....	2,920,313	r/ 2,865,437	r/ 624,146	(X)
3253111251	All other solutions 4/.....	2,844,591	2,792,974	r/ 615,373	(X)
3253111256		r/ 75,722	r/ 72,463	8,773	(X)
3253111111	Nitric acid (100 percent) 5/.....	7,651,362	1,685,551	212,289	(X)
3253114101	Urea original melt liquor.....	7,758,421	5,564,090	r/ 743,230	(X)
3253114111	Consumed in the manufacture of urea-ammonium nitrate solutions.....	2,310,520	346,369	65,625	(X)
3253114121	Prills.....	1,841,340	1,661,227	228,727	(X)
3253114131	Granular.....	3,497,216	3,454,888	r/ 407,121	(X)
3253114141	All other (liquor sales, melamine, feedstock, other).....	109,345	101,606	41,757	(X)
3253121100	Phosphoric acid (100 percent P2O5).....	12,288,807	r/ 3,836,974	r/ 1,128,783	(X)
By use:					
3253121211	Fertilizer.....	11,507,100	3,366,385	898,499	(X)
3253121222	Feed and other 6/.....	781,707	470,589	230,284	(X)
By grade:					
3253121311	Ortho (less than 65 percent P2O5).....	10,696,714	2,493,089	713,504	(X)
3253121321	Super (more than 65 percent P2O5) 6/.....	1,592,093	1,343,885	415,279	(X)
3253124100	Superphosphate and other phosphatic fertilizer materials:				
	Gross weight.....	18,282,227	15,186,039	2,216,270	(X)
	Nitrogen content.....	2,819,501	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	8,756,438	8,418,699	2,394,239	(X)
3253124111	Normal and enriched:				
	Gross weight.....	(D)	(D)	(D)	(X)
	Nitrogen content.....	(X)	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	(D)	(D)	(D)	(X)
3253124121	Concentrated:				
	Gross weight.....	(D)	(D)	(D)	(X)
	Nitrogen content.....	(X)	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	(D)	(D)	(D)	(X)

Table 2b. Production, Shipments, Consumption and Stocks of Fertilizer Materials and Related Products: 2002
(Quantity in short tons. Value in thousands of dollars)

Product code	Total production	Total shipments including interplant transfers		Stocks 1/	
		Quantity	Value		
3253124131	Monoammonium phosphates:				
	Gross weight.....	4,594,471	4,104,481	606,907	(X)
	Nitrogen content.....	r/ 523,014	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	2,291,664	2,278,122	624,876	(X)
3253124211	Diammonium phosphates:				
	Gross weight.....	11,700,743	r/ 9,389,479	1,379,661	(X)
	Nitrogen content.....	2,198,338	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	5,626,459	5,355,423	1,539,317	(X)
3253124222	Other ammonium phosphates and other phosphatic fertilizer materials:				
	Gross weight.....	(D)	(D)	(D)	(X)
	Nitrogen content.....	98,149	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	(D)	(D)	(D)	(X)
3251881100	Sulfuric acid (100 percent): 5/				
	Total gross.....	39,759,732	r/ 11,890,978	r/ 593,077	(X)
	By feedstock:				
	Elemental sulfur.....	33,634,878	r/ 6,817,404	r/ 361,148	(X)
	Smelting metallic sulfide ore.....	2,783,205	r/ 2,757,149	r/ 65,206	(X)
	Decomposition of alkylation and other spent acid.....	2,528,106	1,716,190	r/ 136,191	(X)
	Other.....	813,543	600,235	r/ 30,532	(X)
	By grade:				
	Oleum grades.....	1,509,086	878,315	42,591	(X)
	Other than oleum grades.....	38,250,646	r/ 11,012,663	r/ 550,486	(X)
	Spent acid fortified in contact units and included in above production data.....	(X)	(X)	(X)	(X)
	Total new acid 7/.....	37,231,626	(X)	(X)	(X)
FOURTH QUARTER					
Ammonia:					
3253111120	Synthetic, anhydrous (100 percent).....	a/ 3,623,020	b/r/ 1,328,769	b/r/ 214,353	b/ 383,628
3253111121	Fertilizer use.....	a/ 3,290,058	b/r/ 1,186,354	b/r/ 186,076	b/ 351,595
3253111131	Other uses.....	a/ 332,962	b/ 142,415	c/ 28,277	(S)
Ammonium nitrate (100 percent):					
3253111201	Original melt liquor 2/.....	b/ 1,905,119	b/r/ 1,005,545	b/ 124,874	a/ 215,939
3253111211	Consumed in the manufacture of other nitrogen solutions (e.g., CAN17, AN20, AAN).....	a/ 21,858	(X)	(X)	(D)
3253111216	Liquor consumed in the manufacture of urea-ammonium nitrate solutions.....	a/r/ 797,017	(X)	(X)	(D)
3253111221	High density prill and granular.....	a/ 496,228	a/ 420,523	a/ 47,465	76,858
3253111226	Low density prill and grained.....	c/ 442,322	c/ 410,603	c/ 55,774	c/ 42,519
3253111231	All other (e.g., liquor sales, etc.).....	b/ 147,694	b/r/ 101,875	b/ 12,279	38,229
3253111240	Ammonium sulfate (100 percent).....	763,588	623,898	47,489	223,223
3253111241	Synthetic (direct synthesis from sulfuric acid and ammonia).....	(D)	(D)	(D)	14,255
3253111246	Byproduct 3/.....	(D)	(D)	(D)	208,968
Nitrogen solutions, including mixtures (100 percent N):					
3253111250	Ammonium nitrate/urea solutions.....	a/ 740,080	a/ 684,379	a/r/ 159,933	a/ 123,104
3253111256	All other solutions 4/.....	b/ 23,331	b/ 23,330	b/ 2,950	c/ 4,713
3253111111	Nitric acid (100 percent) 5/.....	b/ 2,035,832	b/ 426,594	c/ 51,007	(X)
3253114101	Urea original melt liquor.....	a/ 2,028,999	a/ 1,408,029	a/ 192,055	163,184

Continued

Table 2b. Production, Shipments, Consumption and Stocks of Fertilizer Materials and Related Products: 2002
(Quantity in short tons. Value in thousands of dollars)

Product code		Total production	Total shipments including interplant transfers			Stocks 1/
			Quantity	Value		
3253114111	Consumed in the manufacture of urea-ammonium nitrate solutions.....	a/ 630,137	86,793		17,074	(D)
3253114121	Prills.....	495,042	a/ 436,754	a/	60,613	91,399
3253114131	Granular.....	a/ 875,971	a/ 859,770	a/r/	104,993	57,102
3253114141	All other (liquor sales, melamine, feedstock, other).....	27,849	24,712	r/	9,375	(D)
3253121100	Phosphoric acid (100 percent P2O5).....	a/ 3,153,333	a/r/ 1,009,375	c/r/	300,641	a/ 169,774
	By use:					
3253121211	Fertilizer.....	a/ 2,939,714	a/ 885,774	c/	238,922	a/ 158,338
3253121222	Feed and other 6/.....	213,619	123,601	c/	61,719	11,436
	By grade:					
3253121311	Ortho (less than 65 percent P2O5).....	a/ 2,715,762	a/ 643,594	c/	186,895	a/ 148,632
3253121321	Super (more than 65 percent P2O5) 6/.....	437,571	365,781	c/	113,746	21,142
3253124100	Superphosphate and other phosphatic fertilizer materials:					
	Gross weight.....	4,558,165	3,686,664		543,851	602,372
	Nitrogen content.....	743,211	(X)		(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	2,196,231	2,090,074	r/	609,700	(X)
3253124111	Normal and enriched:					
	Gross weight.....	(D)	(D)		(D)	(D)
	Nitrogen content.....	(X)	(X)		(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	(D)	(D)		(D)	(X)
3253124121	Concentrated:					
	Gross weight.....	(D)	(D)		(D)	(D)
	Nitrogen content.....	(X)	(X)		(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	(D)	(D)		(D)	(X)
3253124131	Monoammonium phosphates:					
	Gross weight.....	a/ 1,191,247	a/ 1,015,317	a/	152,015	145,825
	Nitrogen content.....	a/r/ 139,310	(X)		(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	a/ 604,525	a/ 595,901	a/	161,337	(X)
3253124211	Diammonium phosphates:					
	Gross weight.....	a/ 2,824,887	a/r/ 2,241,337	b/	335,521	a/ 338,942
	Nitrogen content.....	a/ 575,012	(X)		(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	a/ 1,363,709	a/ 1,301,650	b/r/	394,214	(X)
3253124222	Other ammonium phosphates and other phosphatic fertilizer materials:					
	Gross weight.....	(D)	(D)		(D)	(D)
	Nitrogen content.....	(D)	(X)		(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	(D)	(D)		(D)	(X)
3251881100	Sulfuric acid (100 percent): 5/					
	Total gross.....	a/ 10,179,084	a/r/ 2,929,962	b/r/	142,424	a/ 441,919
	By feedstock:					
3251881111	Elemental sulfur.....	a/ 8,672,695	b/r/ 1,689,643	b/r/	87,753	(X)
3251881121	Smelting metallic sulfide ore.....	724,814	r/ 698,150	r/	16,223	(X)
3251881131	Decomposition of alkylation and other spent acid.....	a/ 580,078	a/ 387,479	b/r/	30,425	(D)
3251881141	Other.....	a/ 201,497	a/ 154,690	b/r/	8,023	(X)
	By grade:					
3251881212	Oleum grades.....	a/ 375,539	a/ 222,435	b/	10,850	c/ 26,177
3251881231	Other than oleum grades.....	a/ 9,803,545	a/r/ 2,707,527	b/r/	131,574	a/ 415,742
3251881311	Spent acid fortified in contact units and included in above production data.....	(D)	(X)		(X)	(D)
	Total new acid 7/.....	9,599,006	(X)		(X)	(X)

Table 2b. Production, Shipments, Consumption and Stocks of Fertilizer Materials and Related Products: 2002
(Quantity in short tons. Value in thousands of dollars)

Product code		Total production	Total shipments including interplant transfers			Stocks 1/
			Quantity	Value		
THIRD QUARTER						
Ammonia:						
3253111120	Synthetic, anhydrous (100 percent).....	a/ 3,293,811	b/r/ 1,193,566	b/r/ 170,239	b/ 349,842	
3253111121	Fertilizer use.....	a/ 2,963,563	b/r/ 1,037,773	b/r/ 144,667	b/ 328,481	
3253111131	Other uses.....	a/ 330,248	b/ 155,793	b/ 25,572	c/ 21,361	
Ammonium nitrate (100 percent):						
3253111201	Original melt liquor 2/.....	b/ 1,727,591	b/r/ 948,967	b/r/ 121,890		216,512
3253111211	Consumed in the manufacture of other nitrogen solutions (e.g., CAN17, AN20, AAN).....	22,695	(X)	(X)		(D)
3253111216	Liquor consumed in the manufacture of urea-ammonium nitrate solutions.....	a/r/ 783,360	(X)	(X)		(D)
3253111221	High density prill and granular.....	a/ 369,589	b/r/ 378,320	b/r/ 43,185		55,491
3253111226	Low density prill and grained.....	c/ 418,794	c/ 406,603	c/ 57,258	c/ 22,314	
3253111231	All other (e.g., liquor sales, etc.).....	b/ 133,153	b/ 89,385	b/r/ 11,603		(D)
3253111240	Ammonium sulfate (100 percent).....	763,169	560,778	45,994		193,948
3253111241	Synthetic (direct synthesis from sulfuric acid and ammonia).....	(D)	(D)	(D)		(D)
3253111246	Byproduct 3/.....	(D)	(D)	(D)		(D)
Nitrogen solutions, including mixtures (100 percent N).....						
3253111250	Ammonium nitrate/urea solutions.....	763,223	r/ 752,605	r/ 169,135		144,959
3253111251	All other solutions 4/.....	a/ 747,403	a/ 738,402	b/r/ 167,445	a/ 139,008	
3253111256		b/r/ 15,820	b/ 14,203	b/ 1,690		5,951
3253111111	Nitric acid (100 percent) 5/.....	b/ 1,862,708	b/ 382,917	c/ 44,848		(X)
3253114101	Urea original melt liquor.....	a/ 1,922,127	a/ 1,343,820	a/r/ 184,049		136,562
3253114111	Consumed in the manufacture of urea-ammonium nitrate solutions.....	a/ 605,476	75,904	14,423		(D)
3253114121	Prills.....	438,110	a/ 397,265	b/ 57,564		(D)
3253114131	Granular.....	a/ 854,085	a/ 846,740	a/r/ 101,635		46,091
3253114141	All other (liquor sales, melamine, feedstock, other).....	24,456	23,911	10,427		(D)
3253121100	Phosphoric acid (100 percent P2O5).....	3,033,580	a/r/ 932,833	a/r/ 274,872		146,859
By use:						
3253121211	Fertilizer.....	2,820,002	a/ 809,229	a/ 215,175		136,939
3253121222	Feed and other 6/.....	213,578	123,604	a/ 59,697		9,920
By grade:						
3253121311	Ortho (less than 65 percent P2O5).....	2,640,129	a/ 599,851	a/ 169,556		128,929
3253121321	Super (more than 65 percent P2O5) 6/.....	393,451	332,982	b/ 105,316		17,930
3253124100	Superphosphate and other phosphatic fertilizer materials:					
	Gross weight.....	4,525,121	3,757,778	561,697		510,238
	Nitrogen content.....	693,016	(X)	(X)		(X)
	Phosphoric oxide content (100 percent P2O5).....	2,186,224	2,069,617	607,545		(X)
3253124111	Normal and enriched:					
	Gross weight.....	(D)	(D)	(D)		(D)
	Nitrogen content.....	(X)	(X)	(X)		(X)
	Phosphoric oxide content (100 percent P2O5).....	(D)	(D)	(D)		(X)
3253124121	Concentrated:					
	Gross weight.....	(D)	(D)	(D)		(D)
	Nitrogen content.....	(X)	(X)	(X)		(X)
	Phosphoric oxide content (100 percent P2O5).....	(D)	(D)	(D)		(X)

Table 2b. Production, Shipments, Consumption and Stocks of Fertilizer Materials and Related Products: 2002
(Quantity in short tons. Value in thousands of dollars)

Product code	Total production	Total shipments including interplant transfers			Stocks 1/
		Quantity	Value		
3253124131	Monoammonium phosphates:				
	Gross weight.....	1,083,872	985,307	149,700	132,328
	Nitrogen content.....	r/ 128,220	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	552,356	561,349	156,660	(X)
3253124211	Diammonium phosphates:				
	Gross weight.....	2,987,310	r/ 2,377,822	358,870	279,003
	Nitrogen content.....	545,033	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	1,434,086	1,322,915	a/ 396,341	(X)
3253124222	Other ammonium phosphates and other phosphatic fertilizer materials:				
	Gross weight.....	b/ 154,255	(D)	(D)	53,188
	Nitrogen content.....	19,763	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	(D)	(D)	(D)	(X)
3251881100	Sulfuric acid (100 percent): 5/				
	Total gross.....	a/ 9,974,042	b/r/ 3,072,655	b/r/ 153,399	a/ 316,689
	By feedstock:				
3251881111	Elemental sulfur.....	a/ 8,381,959	b/r/ 1,811,719	c/r/ 91,693	(X)
3251881121	Smelting metallic sulfide ore.....	674,670	r/ 662,615	r/ 16,358	(X)
3251881131	Decomposition of alkylation and other spent acid.....				
		a/ 704,619	a/ 448,673	b/r/ 37,782	(D)
3251881141	Other.....	a/ 212,794	a/ 149,648	b/r/ 7,566	(X)
	By grade:				
3251881212	Oleum grades.....	b/ 373,227	b/ 213,886	b/ 10,587	b/ 24,874
3251881231	Other than oleum grades.....	a/ 9,600,815	b/r/ 2,858,769	b/r/ 142,812	a/ 291,815
3251881311	Spent acid fortified in contact units and included in above production data.....				
		(D)	(X)	(X)	(D)
	Total new acid 7/.....	9,269,423	(X)	(X)	(X)
SECOND QUARTER					
Ammonia:					
3253111120	Synthetic, anhydrous (100 percent).....	a/ 3,365,357	b/r/ 1,261,761	b/ 184,063	b/ 329,492
3253111121	Fertilizer use.....	a/ 3,039,146	b/r/ 1,126,238	b/r/ 164,920	a/ 307,963
3253111131	Other uses.....	b/ 326,211	b/ 135,523	c/ 19,143	b/ 21,529
Ammonium nitrate (100 percent):					
3253111201	Original melt liquor 2/.....	a/ 1,728,220	b/r/ 1,176,667	a/r/ 163,651	a/ 143,722
3253111211	Consumed in the manufacture of other nitrogen solutions (e.g., CAN17, AN20, AAN).....				
		24,796	(X)	(X)	(D)
3253111216	Liquor consumed in the manufacture of urea-ammonium nitrate solutions.....				
		a/ 732,979	(X)	(X)	(D)
3253111221	High density prill and granular.....	a/ 444,726	a/r/ 553,386	r/ 80,242	58,451
3253111226	Low density prill and grained.....	c/ 394,834	c/ 418,737	c/ 57,699	c/ 19,502
3253111231	All other (e.g., liquor sales, etc.).....	b/ 130,885	b/ 103,351	b/ 9,747	b/ 21,274
3253111240	Ammonium sulfate (100 percent).....				
		746,958	r/ 696,972	r/ 65,606	153,971
3253111241	Synthetic (direct synthesis from sulfuric acid and ammonia).....				
		(D)	(D)	(D)	(D)
3253111246	Byproduct 3/.....				
		(D)	(D)	(D)	(D)
Nitrogen solutions, including mixtures (100 percent N).....					
3253111250		740,568	r/ 799,975	r/ 160,731	108,490
3253111251	Ammonium nitrate/urea solutions.....				
		a/ 724,540	a/ 783,912	a/r/ 158,841	(D)
3253111256	All other solutions 4/.....	b/r/ 16,028	b/ 16,063	c/ 1,890	(D)
3253111111	Nitric acid (100 percent) 5/.....				
		b/ 1,847,011	c/ 382,855	c/ 45,742	(X)
3253114101	Urea original melt liquor.....				
		a/ 1,917,244	a/ 1,383,576	a/r/ 182,727	145,045

Table 2b. Production, Shipments, Consumption and Stocks of Fertilizer Materials and Related Products: 2002
(Quantity in short tons. Value in thousands of dollars)

Product code		Total production	Total shipments including interplant transfers		Value	Stocks 1/
			Quantity			
3253114111	Consumed in the manufacture of urea-ammonium nitrate solutions.....	a/ 565,609	112,435		21,712	(D)
3253114121	Prills.....	452,029	b/ 395,550	b/	53,526	73,211
3253114131	Granular.....	a/ 872,166	a/ 851,079	a/r/	96,941	a/ 58,527
3253114141	All other (liquor sales, melamine, feedstock, other).....	27,440	24,512		10,548	(D)
3253121100	Phosphoric acid (100 percent P2O5).....	3,046,134	a/r/ 944,767	c/r/	277,249	151,452
	By use:					
3253121211	Fertilizer.....	2,861,077	a/ 829,497	c/	220,947	141,541
3253121222	Feed and other 6/.....	185,057	115,270	c/	56,302	9,911
	By grade:					
3253121311	Ortho (less than 65 percent P2O5).....	2,670,210	a/ 620,951	c/	178,763	132,425
3253121321	Super (more than 65 percent P2O5) 6/.....	375,924	323,816	c/	98,486	19,027
3253124100	Superphosphate and other phosphatic fertilizer materials:					
	Gross weight.....	4,695,661	4,034,957		577,233	416,039
	Nitrogen content.....	700,560	(X)		(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	2,214,487	2,212,183		615,777	(X)
3253124111	Normal and enriched:					
	Gross weight.....	(D)	(D)		(D)	(D)
	Nitrogen content.....	(X)	(X)		(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	(D)	(D)		(D)	(X)
3253124121	Concentrated:					
	Gross weight.....	(D)	(D)		(D)	(D)
	Nitrogen content.....	(X)	(X)		(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	(D)	(D)		(D)	(X)
3253124131	Monoammonium phosphates:					
	Gross weight.....	1,262,917	1,111,905		160,105	146,270
	Nitrogen content.....	r/ 134,404	(X)		(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	595,172	590,243		160,354	(X)
3253124211	Diammonium phosphates:					
	Gross weight.....	2,983,869	r/ 2,500,991		364,517	179,699
	Nitrogen content.....	546,230	(X)		(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	1,432,871	1,422,770	a/	400,665	(X)
3253124222	Other ammonium phosphates and other phosphatic fertilizer materials:					
	Gross weight.....	(D)	(D)		(D)	(D)
	Nitrogen content.....	19,926	(X)		(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	(D)	(D)		(D)	(X)
3251881100	Sulfuric acid (100 percent): 5/					
	Total gross.....	a/ 9,984,532	b/r/ 3,034,257	b/r/	154,131	a/ 364,108
	By feedstock:					
3251881111	Elemental sulfur.....	a/ 8,360,676	b/r/ 1,706,728	c/r/	92,645	(X)
3251881121	Smelting metallic sulfide ore.....	719,892	705,306	r/	16,986	(X)
3251881131	Decomposition of alkylation and other spent acid.....	a/ 689,805	a/r/ 468,667	b/r/	36,764	(D)
3251881141	Other.....	a/ 214,159	a/ 153,556	b/r/	7,736	(X)
	By grade:					
3251881212	Oleum grades.....	a/ 374,078	a/ 220,272	b/	10,629	b/ 23,150
3251881231	Other than oleum grades.....	9,610,454	b/r/ 2,813,985	b/r/	143,502	a/ 340,958
3251881311	Spent acid fortified in contact units and included in above production data.....	(D)	(X)		(X)	(D)
	Total new acid 7/.....	9,294,727	(X)		(X)	(X)

Table 2b. Production, Shipments, Consumption and Stocks of Fertilizer Materials and Related Products: 2002
(Quantity in short tons. Value in thousands of dollars)

Product code		Total production	Total shipments including interplant transfers		Value	Stocks 1/
			Quantity			
FIRST QUARTER						
Ammonia:						
3253111120	Synthetic, anhydrous (100 percent).....	a/ 3,580,646	b/r/ 1,433,489	b/r/ 196,079	a/ 365,805	
3253111121	Fertilizer use.....	a/ 3,183,104	b/r/ 1,208,282	b/r/ 162,959	a/ 359,574	
3253111131	Other uses.....	a/ 397,542	a/ 225,207	b/ 33,120	(S)	
Ammonium nitrate (100 percent):						
3253111201	Original melt liquor 2/.....	b/ 1,735,022	b/r/ 942,390	b/r/ 123,374	a/ 176,260	
3253111211	Consumed in the manufacture of other nitrogen solutions (e.g., CAN17, AN20, AAN).....	29,367	(X)	(X)	(D)	
3253111216	Liquor consumed in the manufacture of urea-ammonium nitrate solutions.....	a/ 618,855	(X)	(X)	(D)	
3253111221	High density prill and granular.....	a/ 560,713	a/r/ 422,238	a/r/ 52,189	59,141	
3253111226	Low density prill and grained.....	c/ 399,860	b/ 379,342	b/ 52,666	c/ 37,822	
3253111231	All other (e.g., liquor sales, etc.).....	b/ 126,227	a/ 87,604	b/ 9,919	a/ 22,814	
3253111240	Ammonium sulfate (100 percent).....	671,067	r/ 623,970	r/ 56,843	159,770	
3253111241	Synthetic (direct synthesis from sulfuric acid and ammonia).....	(D)	(D)	(D)	(D)	
3253111246	Byproduct 3/.....	(D)	(D)	(D)	(D)	
Nitrogen solutions, including mixtures (100 percent N).....						
3253111250	Ammonium nitrate/urea solutions.....	b/ 632,568	b/ 586,281	b/r/ 129,154	(D)	
3253111256	All other solutions 4/.....	c/r/ 20,543	b/ 18,867	a/ 2,243	(D)	
3253111111	Nitric acid (100 percent) 5/.....	b/ 1,905,811	c/ 493,185	c/ 70,692	(X)	
3253114101	Urea original melt liquor.....	a/ 1,890,051	a/ 1,428,665	a/r/ 184,399	173,244	
3253114111	Consumed in the manufacture of urea-ammonium nitrate solutions.....	a/ 509,298	71,237	12,416	(D)	
3253114121	Prills.....	a/ 456,159	b/ 431,658	b/ 57,024	86,473	
3253114131	Granular.....	a/ 894,994	a/ 897,299	a/r/ 103,552	a/ 77,233	
3253114141	All other (liquor sales, melamine, feedstock, other).....	29,600	28,471	11,407	(D)	
3253121100	Phosphoric acid (100 percent P2O5).....	3,055,760	a/r/ 949,999	c/r/ 276,021	168,051	
By use:						
3253121211	Fertilizer.....	2,886,307	a/ 841,885	c/ 223,455	160,493	
3253121222	Feed and other 6/.....	169,453	108,114	c/ 52,566	7,558	
By grade:						
3253121311	Ortho (less than 65 percent P2O5).....	2,670,613	a/ 628,693	b/ 178,290	145,267	
3253121321	Super (more than 65 percent P2O5) 6/.....	385,147	321,306	c/ 97,731	22,784	
3253124100	Superphosphate and other phosphatic fertilizer materials:					
	Gross weight.....	4,503,280	3,706,640	533,489	598,188	
	Nitrogen content.....	682,714	(X)	(X)	(X)	
	Phosphoric oxide content (100 percent P2O5).....	2,159,496	2,046,825	561,217	(X)	
3253124111	Normal and enriched:					
	Gross weight.....	(D)	(D)	(D)	(D)	
	Nitrogen content.....	(X)	(X)	(X)	(X)	
	Phosphoric oxide content (100 percent P2O5).....	(D)	(D)	(D)	(X)	
3253124121	Concentrated:					
	Gross weight.....	(D)	(D)	(D)	(D)	
	Nitrogen content.....	(X)	(X)	(X)	(X)	
	Phosphoric oxide content (100 percent P2O5).....	(D)	(D)	(D)	(X)	

Table 2b. Production, Shipments, Consumption and Stocks of Fertilizer Materials and Related Products: 2002
(Quantity in short tons. Value in thousands of dollars)

Product code		Total production	Total shipments including interplant transfers		Stocks 1/
			Quantity	Value	
3253124131	Monoammonium phosphates:				
	Gross weight.....	1,056,435	991,952	145,087	130,554
	Nitrogen content.....	r/ 121,080	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	539,611	530,629	146,525	(X)
3253124211	Diammonium phosphates:				
	Gross weight.....	2,904,677	r/ 2,269,329	320,753	300,476
	Nitrogen content.....	532,063	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	1,395,793	1,308,088	348,097	(X)
3253124222	Other ammonium phosphates and other phosphatic fertilizer materials:				
	Gross weight.....	(D)	(D)	(D)	(D)
	Nitrogen content.....	29,571	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	(D)	(D)	(D)	(X)
3251881100	Sulfuric acid (100 percent): 5/				
	Total gross.....	a/ 9,622,074	b/r/ 2,854,104	b/r/ 143,123	a/r/ 408,693
	By feedstock:				
3251881111	Elemental sulfur.....	a/ 8,219,548	b/r/ 1,609,314	c/r/ 89,057	(X)
3251881121	Smelting metallic sulfide ore.....	663,829	691,078	r/ 15,639	(X)
3251881131	Decomposition of alkylation and other spent acid.....	a/ 553,604	a/ 411,371	b/r/ 31,220	(D)
3251881141	Other.....	a/ 185,093	a/ 142,341	a/r/ 7,207	(X)
	By grade:				
3251881212	Oleum grades.....	b/ 386,242	a/ 221,722	b/ 10,525	b/ 30,713
3251881231	Other than oleum grades.....	a/ 9,235,832	b/r/ 2,632,382	b/r/ 132,598	r/ 377,980
3251881311	Spent acid fortified in contact units and included in above production data.....	(D)	(X)	(X)	(D)
	Total new acid 7/.....	9,068,470	(X)	(X)	(X)

D Withheld to avoid disclosing data for individual companies. N Nitrogen content. P2O5 Phosphoric oxide content. r/Revised by 5 percent or more from previously published data. S Suppressed does not meet publication standards. X Not applicable.

1/Stocks held by producing companies include amounts held at their nonproducing locations.

2/Production represents total amount of ammonium nitrate produced including amounts for fertilizer, explosives, and other uses, and amounts consumed in manufacturing other products, such as nitrogen solutions. Stocks represent total stocks held by producing companies, including stock of original melt liquor and amounts (liquid and solid) reported as fertilizer, explosives, and other uses.

3/Excludes coke oven byproduct ammonium sulfate.

4/Solutions containing two or more products such as (a) ammonia, ammonium nitrate; (b) ammonia, urea; (c) ammonia, ammonium nitrate, urea.

5/Includes data for government-owned, contractor-operated plants.

6/Product code 3253121222 includes product codes 3253121111 and 3253121221, and product code 3253121321 includes product codes 3253121111 and 3253121321.

7/Total new acid equals total gross acid, minus fortified spent acid and sulfuric acid produced from the decomposition of alkylation acids and other spent acids and sludge acid.

Note: Percent of estimation of each item is indicated as follows: a/10 to 25 percent of this item is estimated. b/26 to 50 percent of this item is estimated. c/Over 50 percent of this item is estimated.

Table 3. Quantity of Production, Exports, Imports, and Apparent Consumption of Fertilizer Materials: 2003 and 2002
 [Quantity in thousands of metric tons]

Product code	Product description	Production	Exports of domestic merchandise 1/	Percent exports to production	Imports for consumption 2/	Apparent consumption 3/	Percent imports to apparent consumption
2003							
3253111120	Ammonia, synthetic anhydrous.....	10,467.9	348.0	3.3	5,410.1	15,530.0	34.8
3253111201	Ammonium nitrate, original solution.....	5,734.0	42.1	0.7	897.2	6,589.1	13.6
3253111250	Nitrogen solutions, ammonium nitrate/ urea solutions.....	2,599.9	34.4	1.3	185.9	2,751.4	6.8
3253111240	Ammonium sulfate.....	2,604.3	621.7	23.9	1,312.8	3,295.4	39.8
3253114100	Urea.....	5,783.1	722.6	12.5	3,752.2	8,812.7	42.6
3253121100	Phosphoric acid.....	11,326.5	(D)	(D)	71.4	(D)	(D)
3253124111	Normal and enriched superphosphate.....	(D)	(D)	(D)	(D)	(D)	(D)
3253124121	Concentrated superphosphate.....	(D)	395.2	(D)	32.6	(D)	(D)
3253124211	Diammonium phosphates.....	10,725.9	4,677.3	43.6	54.8	6,103.3	0.9
3251881100	Sulfuric acid, gross.....	37,380.9	166.8	0.4	718.4	37,932.5	1.9
2002							
3253111120	Ammonia, synthetic anhydrous.....	12,576.4	554.1	4.4	6,035.8	18,058.1	33.4
3253111201	Ammonium nitrate, original solution.....	6,437.4	95.2	1.5	1,043.1	7,385.3	14.1
3253111250	Nitrogen solutions, ammonium nitrate/ urea solutions.....	2,649.3	20.6	0.8	1,471.6	4,100.3	35.9
3253111240	Ammonium sulfate.....	2,671.5	924.1	34.6	311.2	2,058.6	15.1
3253114100	Urea.....	7,038.4	970.4	13.8	4,854.5	10,922.5	44.4
3253121100	Phosphoric acid.....	11,148.4	(D)	(D)	87.7	(D)	(D)
3253124111	Normal and enriched superphosphate.....	(D)	(D)	(D)	(D)	(D)	(D)
3253124121	Concentrated superphosphate.....	(D)	603.1	(D)	36.2	(D)	(D)
3253124211	Diammonium phosphates.....	10,614.9	7,305.5	68.8	158.7	3,468.1	4.6
3251881100	Sulfuric acid, gross.....	36,070.0	190.5	0.5	1,099.1	36,978.6	3.0

D Withheld to avoid disclosing data for individual companies.

1/Source: Census Bureau report EM 545, U.S. Exports.

2/Source: Census Bureau report IM 145, U.S. Imports for Consumption.

3/Apparent consumption is derived by subtracting exports from manufacturers' production plus imports. Apparent consumption does not include any adjustments for changes in inventories.

Note: For comparison of North American Industry Classification System (NAICS)-based product codes, HTSUSA import codes, and Schedule B export codes, see Table 4.

Table 4. Comparison of North American Industry Classification System (NAICS)-Based Product Codes with Codes with Schedule B Export Codes and HTUSA Import Codes: 2003

Product code	Product description	Export code 1/	Import code 2/
3253111120	Anhydrous ammonia, synthetic.....	2814.10.0000	2814.10.0000
3253111201	Ammonium nitrate, original solution.....	3102.30.0000	3102.30.0000
3253111240	Ammonium sulfate.....	3102.21.0000	3102.21.0000
3253111251	Nitrogen solutions, ammonium nitrate/urea solutions.....	3102.80.0000	3102.80.0000
3253114100	Urea.....	3102.10.0000	3102.10.0000
3253121100	Phosphoric acid.....	2809.20.0010 2809.20.0020 2809.20.0030	2809.20.0010 2809.20.0020 2809.20.0030
3253124111	Normal and enriched superphosphates.....	3103.10.0010	3103.10.0010
3253124121	Concentrated superphosphates.....	3103.10.0020	3103.10.0020
3253124211	Diammonium phosphates.....	3105.30.0000	3105.30.0000
3251881100	Sulfuric acid.....	2807.00.0000	2807.00.0000

1/Source: 2003 edition, Harmonized System-based Schedule B, Statistical Classification of Domestic and Foreign Commodities Exported from the United States.

2/Harmonized Tariff Schedule of the United States, Annotated (2003).

Appendix.

General CIR Survey Information, Explanation of General Terms and Historical Note

GENERAL

The CIR program has been providing monthly, quarterly, and annual measures of industrial activity for many years. Since 1904, with its cotton and fats and oils surveys, the CIR program has formed an essential part of an integrated statistical system involving the quinquennial economic census, manufacturing sector, and the annual survey of manufactures. The CIR surveys, however, provide current statistics at a more detailed product level than either of the other two statistical programs.

The primary objective of the CIR program is to produce timely, accurate data on production and shipments of selected products. The data are used to satisfy economic policy needs and for market analysis, forecasting, and decision making in the private sector. The product-level data generated by these surveys are used extensively by individual firms, trade associations, and market analysts in planning or recommending marketing and legislative strategies, particularly if their industry is significantly affected by foreign trade. Although production and shipments information are the two most common data items collected, the CIR program collects other measures also such as inventories, orders, and consumption. These surveys measure manufacturing activity in important commodity areas such as textiles and apparel, chemicals, primary metals, computer and electronic components, industrial equipment, aerospace equipment, and consumer goods.

The CIR program uses a unified data collection, processing, and publication system. The U.S. Census Bureau updates the survey panels for most reports annually and reconciles the estimates to the results of the broader-based annual survey of manufactures and the economic census, manufacturing sector. The manufacturing sector provides a complete list of all producers of the products covered by the CIR program and serves as the primary source for CIR sampling. Where a small number of producers exist, CIR surveys cover all known producers of a product. However, when the number of producers is too large, cutoff and random sampling techniques are used. Surveys are continually reviewed and modified to provide the most up-to-date information on products produced. The CIR program includes a group of mandatory and voluntary surveys. Typically the monthly and quarterly surveys are conducted on a voluntary basis. Those companies that choose not to respond to the voluntary surveys are required to submit a mandatory annual counterpart corresponding to the more frequent survey.

NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS), 1997

The adoption of the North American Industry Classification System (NAICS) in the 1997 Economic Census has had a major impact on the comparability of current and historic data. Approximately half of the industries in the manufacturing sector of NAICS do not have comparable industries in the Standard Industrial Classification (SIC) system that was used in the past.

While most of the change affecting the manufacturing sector was change within the sector, some industries left manufacturing and others came into manufacturing. Prominent among those that left manufacturing are logging and portions of publishing. Prominent among the industries that came into the manufacturing sector are bakeries, candy stores where candy is made on the premises, custom tailors, makers of custom draperies, and tire retreading. The net effect of the classification changes are such that if the 1997 value of shipments data for all manufacturers were tabulated on an SIC basis, it would be approximately 3 percent higher.

Listed below are the NAICS sectors:

- 21 Mining
- 22 Utilities
- 23 Construction
- 31-33 Manufacturing
- 42 Wholesale Trade
- 44-45 Retail Trade
- 48-49 Transportation and Warehousing
- 51 Information
- 52 Finance and Insurance
- 53 Real Estate and Rental and Leasing
- 54 Professional, Scientific, and Technical Services
- 55 Management of Companies and Enterprises
- 56 Administrative and Support and Waste Management and Remediation Services
- 61 Educational Services
- 62 Health Care and Social Assistance
- 71 Arts, Entertainment, and Recreation
- 72 Accommodation and Food Services
- 81 Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

FUNDING

The Census Bureau funds most of the surveys. However, a number of surveys are paid for either fully or partially by other Federal Government agencies or private trade associations. A few surveys are mandated, but all are authorized by Title 13 of the United States Code.

RELIABILITY OF DATA

Survey error may result from several sources including the inability to obtain information about all cases in the survey, response errors, definitional difficulties, differences in the interpretation of questions, mistakes in recording or coding the reported data, and other errors of collection, response, coverage, and estimation. These nonsampling errors also occur in complete censuses. Although no direct measurement of the biases due to these nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

A major source of bias in the published estimates is the imputing of data for nonrespondents, for late reporters, and for data that fail logic edits. Missing figures are imputed based on period-to-period movements shown by reporting firms. A figure is considered to be an impute if the value was not directly reported on the questionnaire, directly derived from other reported items, directly available from supplemental sources, or obtained from the respondent during the analytical review phase. Imputation generally is limited to a maximum of 10 percent for any one data cell. Figures with imputation rates greater than 10 percent are suppressed or footnoted. The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse, because the actual yearly movements for nonrespondents may or may not closely agree with the imputed movements. The range of difference between the actual and imputed figures is assumed to be small. The degree of uncertainty regarding the accuracy of the published data increases as the percentage of imputation increases. Figures with imputation rates above 10 percent should be used with caution.

DATA REVISIONS

Statistics for previous years may be revised as the result of corrected figures from respondents, late reports for which imputations were originally made, or other corrections. Data that have been revised by more than 5 percent from previously published data are indicated by footnotes.

DISCLOSURE

The Census Bureau collects the CIR data under the authority of Title 13, United States Code, which specifies that the information can only be used for statistical purposes and cannot be published or released in any manner that would identify a person, household, or establishment. "D" indicates that data in the cell have been suppressed to avoid disclosure of information pertaining to individual companies.

EXPLANATION OF GENERAL TERMS

Capacity. The maximum quantity of a product that can be produced in a plant in 1 day if operating for 24 hours. Includes the capacity of idle plants until the plant is reported to be destroyed, dismantled, or abandoned.

Consumption. Materials used in producing or processing a product or otherwise removing the product from the inventory.

Exports. Includes all types of products shipped to foreign countries, or to agents or exporters for reshipment to foreign countries.

Gross shipments. The quantity or value of physical shipments from domestic establishments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale or use. Shipments of products purchased for resale are omitted. Shipments of products made under toll arrangements are included.

Interplant transfers. Shipments to other domestic plants within a company for further assembly, fabrication, or manufacture.

Inventories. The quantity or value of finished goods, work in progress, and materials on hand.

Machinery in place. The number of machines of a particular type in place as of a particular date whether the machinery was used for production, prototype, or sampling, or was idle. Machinery in place includes all machinery set up in operating positions.

Net receipts. Derived by subtracting the materials held at the end of the previous month from the sum of materials used during the current month.

Production. The total volume of products produced, including: products sold; products transferred or added to inventory after adjustments for breakage, shrinkage, and obsolescence, plus any other inventory adjustment; and products that undergo further manufacture at the same establishment.

Quantities produced and consumed. Quantities of each type of product produced by a company for internal consumption within that same company.

Quantity and value of new orders. The sales value of orders received during the current reporting period for products and services to be delivered immediately or at some future date. Also represents the net sales value of contract change documents that increase or decrease the sales value of the orders to which they are related, when the parties concerned are in substantial agreement as to the amount involved. Included as orders are only those that are supported by binding legal documents such as signed contracts or letter contracts.

Quantity and value of shipments. The figures on quantity and value of shipments represent physical shipments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale. The value represents the net sales price, f.o.b. plant, to the customer or branch to which the products are shipped, net of discounts, allowances, freight charges, and

returns. Shipments to a company's own branches are assigned the same value as comparable appropriate allocation of company overhead and profit. Products bought and resold without further manufacture are excluded.

Stocks. Total quantity of ending finished inventory.

Unfilled orders (backlog). Calculated by adding net new orders and subtracting net sales from the backlog at the end of the preceding year.

HISTORICAL NOTE

Data on inorganic fertilizer chemicals and sulfuric acid have been collected by the Census Bureau since 1941. Historical data may be obtained from Current Industrial Reports (called Facts for Industry before 1959) available at your local Federal Depository Library.