

# Inorganic Fertilizer Materials and Related Products: 2001

## Summary

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**SUMMARY OF FINDINGS.** United States production of sulfuric acid in 2001 totaled 40,793,499 thousand

short tons (100 percent H<sub>2</sub>SO<sub>4</sub>), 6.5 percent below the 2000 figure of 43,642,859 thousand short tons.

Production of synthetic ammonia, nitric acid, and ammonium compounds decreased 17.2 percent to 32,132,946 thousand short tons in 2001, from 38,806,921 thousand short tons in 2000. Phosphoric acid production decreased 7.4 percent to 11,566,034 thousand short tons in 2001, from 12,492,002 thousand short tons in 2000.

Production of superphosphate and other phosphatic fertilizer materials for 2001 decreased 8.9 percent to 8,109,404 thousand short tons (100 percent P<sub>2</sub>O<sub>5</sub>), from 8,898,997 thousand short tons (100 percent P<sub>2</sub>O<sub>5</sub>) in 2000.

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 Walter Hunter, Jr., 301-457-4798.

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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Table 1. Shipments and Production of Principal Fertilizer Materials: 1997 to 2001  
 [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/.....	2001	12,538	4,953	884
		2000	r/ 15,809	r/ 6,337	915
		1999	17,337	(X)	(X)
		1998	18,475	8,303	1,214
		1997	17,891	8,589	1,578
3253111201	Ammonium nitrate, original melt liquor 2/.....	2001	6,920	3,518	526
		2000	r/ 7,979	r/ 4,146	r/ 541
		1999	7,630	(X)	(X)
		1998	9,079	(X)	(X)
		1997	8,604	(X)	(X)
3253111240	Ammonium sulfate 1/.....	2001	2,556	2,164	151
		2000	2,808	2,082	103
		1999	2,875	(X)	(X)
		1998	2,787	2,861	181
		1997	2,711	2,544	181
3253114000	Urea (100 percent).....	2001	6,833	4,426	705
		2000	7,682	r/ 4,682	r/ 646
		1999	8,907	(X)	(X)
		1998	8,865	5,586	667
		1997	8,190	5,342	772
3253111111	Nitric acid (100 percent).....	2001	7,074	1,868	196
		2000	8,708	r/ 2,344	r/ 280
		1999	8,945	(X)	(X)
		1998	9,285	1,506	160
		1997	9,433	1,805	216
3253121000	Phosphoric acid (100 percent P2O5).....	2001	11,566	3,142	814
		2000	12,492	3,952	r/ 1,126
		1999	13,708	4,415	(X)
		1998	13,891	4,649	1,515
		1997	13,159	4,587	1,405
3251881000	Sulfuric acid, gross (100 percent).....	2001	40,793	11,610	566
		2000	43,643	r/ 11,930	572
		1999	44,756	(X)	(X)
		1998	48,513	13,043	683
		1997	47,929	12,962	576
3253124000	Superphosphates and other fertilizer materials (100 percent P2O5).....	2001	8,109	7,921	2,045
		2000	8,899	8,822	2,649
		1999	9,133	9,769	(X)
		1998	10,259	10,293	3,046
		1997	10,473	10,380	3,692

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 2. Production, Shipments, Consumption, and Stocks of Fertilizer Materials and Other Related Chemicals  
 [(Quantity in short tons. Value in thousands of dollars)]

Product code	Chemical and basis	2001				2000			
		Total production	Total shipments, including interplant transfers		Stocks 1/	Total production	Total shipments, including interplant transfers		Stocks 1/
			Quantity	Value			Quantity	Value	
3253111120	Ammonia: Synthetic, anhydrous (100 percent).....	12,537,664	4,953,080	884,449	(X) r/	15,809,303	r/ 6,337,223	914,869	(X)
	Fourth quarter.....	a/ 3,856,415	b/r/ 1,733,719	b/r/ 285,270	a/r/ 351,004	b/r/ 3,599,053	b/ 1,290,204	b/ 202,605	a/r/ 311,844
	Third quarter.....	b/ 2,864,428	b/r/ 1,018,475	b/r/ 174,043	a/ 342,249	b/r/ 3,489,910	b/r/ 1,394,388	b/r/ 208,527	a/r/ 377,142
	Second quarter.....	b/r/ 2,857,364	b/r/ 1,137,786	b/r/ 228,118	a/r/ 339,035	b/r/ 4,154,337	b/r/ 1,825,616	b/r/ 260,627	a/r/ 326,067
	First quarter.....	b/r/ 2,959,457	b/r/ 1,063,100	b/r/ 197,018	a/r/ 360,107	b/r/ 4,566,003	b/ 1,827,015	b/ 243,110	a/r/ 362,386
3253111121	Fertilizer use.....	11,292,354	4,399,693	796,237	(X) r/	13,780,772	r/ 5,179,636	r/ 750,262	(X)
	Fourth quarter.....	b/ 3,426,819	b/r/ 1,484,276	b/r/ 248,856	a/r/ 337,068	b/r/ 3,083,667	b/ 998,426	b/ 158,417	a/r/ 280,385
	Third quarter.....	b/ 2,588,821	b/r/ 912,174	b/r/ 156,903	a/ 327,428	b/r/ 2,969,990	b/r/ 1,115,489	b/r/ 166,624	a/r/ 354,848
	Second quarter.....	b/ 2,607,739	b/r/ 1,065,389	b/r/ 215,316	a/r/ 319,723	b/r/ 3,660,252	b/r/ 1,526,988	b/r/ 220,439	a/r/ 307,305
	First quarter.....	b/r/ 2,668,975	b/r/ 937,854	b/r/ 176,062	a/r/ 330,651	b/r/ 4,066,863	b/ 1,538,733	b/ 204,782	a/r/ 346,148
3253111131	Other uses.....	1,245,310	553,387	88,212	(X)	2,028,531	1,157,587	(X)	(X)
	Fourth quarter.....	a/ 429,596	a/r/ 249,443	b/r/ 36,414	b/r/ 13,936	b/ 515,386	(S)	(S)	a/ 31,459
	Third quarter.....	b/r/ 275,607	b/r/ 106,301	b/r/ 18,040	b/r/ 14,821	b/ 519,920	b/ 278,899	(S)	b/ 22,294
	Second quarter.....	b/r/ 249,625	(S)	(S)	b/r/ 19,312	b/ 494,085	b/ 298,628	b/ 40,188	(S)
	First quarter.....	b/r/ 290,482	b/r/ 125,246	(S)	b/r/ 29,456	b/ 499,140	b/ 288,282	b/ 38,328	(S)
3253111201	Ammonium nitrate (100 percent): Original melt liquor 2/.....	6,920,447	3,517,771	526,219	(X) r/	7,979,366	r/ 4,145,965	r/ 540,544	(X)
	Fourth quarter.....	b/ 1,853,671	b/ 943,179	b/ 133,043	a/r/ 134,572	b/r/ 2,063,330	b/ 979,278	b/ 132,676	a/r/ 132,218
	Third quarter.....	b/ 1,558,663	b/ 809,551	b/ 122,991	a/r/ 190,503	b/r/ 1,773,393	b/r/ 862,270	b/r/ 113,947	a/r/ 190,503
	Second quarter.....	b/ 1,649,222	b/r/ 882,159	b/ 135,171	r/ 180,584	b/r/ 1,927,853	b/ 1,132,590	b/r/ 140,102	b/ 123,554
	First quarter.....	b/ 1,858,891	b/ 882,882	b/ 135,014	a/r/ 97,355	b/r/ 2,214,790	b/r/ 1,171,827	b/r/ 153,819	b/ 146,050
3253111211	Consumed in the manufacture of other nitrogen solutions (e.g., CAN17, AN20, AAN).....	110,692	(X)	(X)	(X) r/	128,561	(X)	(X)	(X)
	Fourth quarter.....	r/ 34,552	(X)	(X)	(D) r/	34,475	(X)	(X)	(D)
	Third quarter.....	r/ 21,953	(X)	(X)	(D) a/r/	28,370	(X)	(X)	(D)
	Second quarter.....	r/ 28,360	(X)	(X)	(D) a/r/	35,056	(X)	(X)	(D)
	First quarter.....	r/ 25,827	(X)	(X)	(D)	(S)	(X)	(X)	(D)
3253111216	Liquor consumed in the manufacture of urea-ammonium nitrate solutions..	3,062,240	(X)	(X)	(X) r/	3,415,027	(X)	(X)	(X)
	Fourth quarter.....	b/r/ 796,992	(X)	(X)	(D) a/r/	980,444	(X)	(X)	r/ 20,542
	Third quarter.....	b/r/ 675,535	(X)	(X)	(D) a/r/	802,313	(X)	(X)	(D)
	Second quarter.....	b/r/ 756,862	(X)	(X)	(D) a/r/	883,134	(X)	(X)	a/ 15,406
	First quarter.....	b/r/ 832,851	(X)	(X)	(D) a/r/	749,136	(X)	(X)	(S)
3253111221	High density prill and granular.....	1,929,977	1,803,114	260,639	(X) r/	2,327,996	r/ 2,245,152	r/ 283,323	(X)
	Fourth quarter.....	a/r/ 541,174	a/ 490,940	a/ 63,030	a/r/ 73,121	b/r/ 530,992	b/r/ 513,180	b/r/ 67,660	r/ 56,739
	Third quarter.....	a/r/ 361,405	a/ 354,476	b/ 49,897	r/ 417,855	b/r/ 417,855	b/r/ 376,696	b/r/ 48,011	r/ 73,121
	Second quarter.....	a/r/ 438,308	a/ 478,531	a/ 73,332	r/ 71,327	b/r/ 488,807	b/r/ 660,605	b/r/ 80,423	a/ 67,671
	First quarter.....	a/r/ 589,909	a/ 479,167	b/ 74,380	r/ 34,952	b/ 890,342	b/r/ 694,671	(S)	b/ 90,589
3253111226	Low density prill and grained.....	1,379,632	1,371,345	219,138	(X)	1,573,210	1,516,468	213,863	(X)
	Fourth quarter.....	b/r/ 388,061	b/r/ 372,518	b/ 58,612	b/r/ 28,694	b/ 387,213	b/ 378,628	(S)	b/ 28,291
	Third quarter.....	b/r/ 362,896	b/r/ 360,854	b/ 60,093	b/r/ 36,273	(S)	(S)	(S)	b/r/ 36,273
	Second quarter.....	b/r/ 320,710	b/r/ 320,967	b/ 50,621	b/r/ 26,073	(S)	(S)	(S)	b/ 20,328
	First quarter.....	b/r/ 307,965	b/r/ 317,006	(S)	b/ 23,564	(S)	(S)	(S)	b/ 19,329
3253111231	All other (e.g., liquor sales, etc.).....	437,906	343,312	46,442	(X) r/	534,572	384,345	43,358	(X)
	Fourth quarter.....	b/r/ 92,892	b/r/ 79,721	b/r/ 11,401	b/ 19,818	b/r/ 130,206	b/ 87,470	(S)	b/ 20,404
	Third quarter.....	b/r/ 136,874	b/r/ 94,221	b/ 13,001	a/ 20,645	b/r/ 121,716	b/ 93,617	(S)	a/r/ 20,645
	Second quarter.....	b/r/ 104,982	b/r/ 82,661	b/r/ 11,218	b/ 13,603	b/r/ 144,319	b/ 103,030	b/ 11,243	b/ 15,123
	First quarter.....	b/r/ 103,158	b/r/ 86,709	b/ 10,822	b/ 10,499	b/r/ 138,331	b/ 100,228	b/ 12,109	(D)
3253111240	Ammonium sulfate (100 percent).....	2,555,922	2,163,519	150,865	(X)	2,807,595	2,081,848	102,903	(X)
	Fourth quarter.....	698,336	(D)	(D)	163,241	672,257	(D)	(D)	130,768
	Third quarter.....	593,111	509,362	38,834	112,425	692,328	(D)	(D)	104,325
	Second quarter.....	647,279	628,211	42,939	56,155	712,598	(D)	(D)	103,894
	First quarter.....	617,196	(D)	(D)	93,116	730,412	(D)	(D)	106,079
3253111241	Synthetic (direct synthesis from sulfuric acid and ammonia).....	(D)	(D)	(D)	(X)	(D)	(D)	(D)	(X)
	Fourth quarter.....	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Third quarter.....	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Second quarter.....	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	First quarter.....	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
3253111246	Byproduct 3/.....	(D)	(D)	(D)	(X)	(D)	(D)	(D)	(X)
	Fourth quarter.....	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Third quarter.....	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Second quarter.....	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	First quarter.....	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
3253111250	Nitrogen solutions, including mixtures (100 percent N).....	3,045,024	2,976,739	487,533	(X) r/	3,502,747	r/ 3,047,373	r/ 645,054	(X)
	Fourth quarter.....	r/ 743,555	r/ 685,598	r/ 98,547	199,968	r/ 928,820	r/ 781,603	r/ 168,222	r/ 124,362
	Third quarter.....	r/ 684,100	r/ 713,941	r/ 97,127	158,059	r/ 778,426	r/ 613,493	r/ 142,115	r/ 99,887
	Second quarter.....	r/ 775,202	r/ 861,820	r/ 152,846	r/ 255,262	r/ 906,069	r/ 909,453	r/ 182,607	r/ 115,526
	First quarter.....	r/ 842,167	r/ 715,380	r/ 139,013	r/ 223,483	r/ 889,432	r/ 742,824	r/ 152,110	r/ 243,766
3253111251	Ammonium nitrate/urea solutions.....	2,961,563	2,895,811	475,166	(X)	3,432,527	r/ 2,943,047	r/ 634,035	(X)
	Fourth quarter.....	b/ 721,016	b/ 667,855	a/r/ 96,140	(D) b/	905,329	b/r/ 760,674	b/r/ 165,878	a/r/ 116,403
	Third quarter.....	b/ 667,728	a/ 699,141	a/r/ 94,931	154,591	b/ 764,428	b/r/ 598,029	b/r/ 140,881	91,316
	Second quarter.....	b/ 755,731	b/ 839,736	a/r/ 149,268	a/ 252,924	b/ 891,542	b/r/ 894,266	b/r/ 180,887	106,510
	First quarter.....	b/r/ 817,088	b/r/ 689,079	a/r/ 134,827	(D) b/	871,228	b/r/ 690,078	b/r/ 146,389	b/ 234,208
3253111256	All other solutions 4/.....	83,461	80,928	12,367	(X)	70,220	r/ 104,326	r/ 11,019	(X)
	Fourth quarter.....	a/r/ 22,539	a/ 17,743	a/r/ 2,407	(D) a/r/	23,491	a/r/ 20,929	a/r/ 2,344	(D)
	Third quarter.....	b/r/ 16,372	b/ 14,800	b/r/ 2,196	r/ 3,468	a/r/ 13,998	a/r/ 15,464	a/r/ 1,234	(D)
	Second quarter.....	b/r/ 19,471	b/ 22,084	b/r/ 3,578	2,338	a/r/ 14,527	a/r/ 15,187	a/r/ 1,720	(D)
	First quarter.....	b/r/ 25,079	b/ 26,301	b/r/ 4,186	(D) b/r/	18,204	(S)	(S)	(D)
3253111111	Nitric acid (100 percent) 5/.....	7,073,889	1,867,792	195,943	(X)	8,707,910	r/ 2,343,833	r/ 279,752	(X)
	Fourth quarter.....	b/r/ 1,871,004	b/r/ 479,254	b/r/ 44,648	(X) b/	2,268,001	b/r/ 551,599	(S)	(X)
	Third quarter.....	b/r/ 1,572,368	(S)	b/r/ 34,364	(X) b/	1,981,897	(S)	(S)	(X)
	Second quarter.....	b/r/ 1,659,945	b/r/ 430,401	b/r/ 55,320	(X) b/	2,171,620	(S)	b/r/ 64,014	(X)
	First quarter.....	b/r/ 1,970,572	(S)	b/r/ 61,611	(X) b/	2,286,392	(S)	(S)	(X)
3253114000	Urea original melt liquor.....	6,832,704	4,425,790	705,451	(X)	7,681,640	r/ 4,681,843	r/ 645,597	(X)
	Fourth quarter.....	a/ 2,042,703	a/r/ 1,369,492	a/ 206,558	a/ 281,807	a/ 1,941,520	a/r/ 1,117,791	a/r/ 162,588	b/ 120,358
	Third quarter.....	a/ 1,514,879	a/r/ 966,275	a/r/ 142,460	a/ 194,949	a/ 1,670,852	a/r/ 901,953	a/r/ 128,533	b/ 144,274
	Second quarter.....	a/ 1,568,958	a/r/ 1,064,256	a/r/ 179,742	a/ 215,372	a/ 1,819,903	a/r/ 1,084,263	a/r/ 143,696	b/ 87,149
	First quarter.....	a/ 1,706,164	a/r/ 1,025,767	a/r/ 176,691	a/ 179,350	a/ 2,249,365	a/r/ 1,577,836	a/r/ 210,780	a/ 167,539

Continued

Table 2. Production, Shipments, Consumption, and Stocks of Fertilizer Materials and Other Related Chemicals  
 [(Quantity in short tons. Value in thousands of dollars)]

Product code	Chemical and basis	2001					2000				
		Total production	Total shipments, including interplant transfers		Stocks 1/	Total production	Total shipments, including interplant transfers		Stocks 1/		
			Quantity	Value			Quantity	Value			
3253114011	Consumed in the manufacture of urea-ammonium nitrate solutions.....	2,424,441	276,012	70,013	(X) r/	2,700,606	(D)	(D)	(X)		
	Fourth quarter.....	b/r/ 643,901	(D)	(D)	(D) a/r/	734,536	(D)	(D)	(D)		
	Third quarter.....	b/r/ 539,300	57,158	12,118	(D) a/r/	591,571	(D)	(D)	(D)		
	Second quarter.....	b/r/ 591,356	(D)	(D)	(D) a/r/	718,257	(D)	(D)	(D)		
	First quarter.....	b/r/ 649,884	(D)	(D)	(D) b/r/	656,242	(D)	(D)	(D)		
3253114021	Prills.....	1,615,486	1,397,435	197,221	(X)	1,636,302	1,128,205	156,786	(X)		
	Fourth quarter.....	a/ 472,865	b/r/ 369,525	b/r/ 48,082	b/ 172,164	a/ 354,345	a/ 210,847	a/r/ 31,521	(D)		
	Third quarter.....	a/ 414,786	b/ 380,980	b/ 47,004	b/ 97,840	a/ 439,959	a/ 286,755	a/r/ 38,715	b/ 109,903		
	Second quarter.....	a/ 386,639	b/ 347,367	b/ 52,780	(D) a/	366,312	a/ 265,278	a/r/ 35,369	(D)		
	First quarter.....	a/ 341,196	b/ 299,563	b/ 49,355	b/ 86,461	a/ 475,686	a/ 365,325	a/ 51,181	b/ 100,951		
3253114031	Granular.....	2,524,830	2,495,255	381,687	(X)	3,173,804	r/ 3,167,667	r/ 412,269	(X)		
	Fourth quarter.....	a/r/ 854,359	a/r/ 842,346	a/r/ 127,359	95,684	a/ 819,943	a/r/ 829,720	a/r/ 109,734	a/ 18,706		
	Third quarter.....	a/r/ 479,155	a/r/ 449,267	a/r/ 67,833	66,051	a/ 582,044	a/r/ 529,367	a/r/ 70,344	a/ 25,032		
	Second quarter.....	a/r/ 529,044	a/r/ 581,421	a/r/ 87,851	84,973	a/ 713,549	a/r/ 719,015	a/r/ 90,730	a/ 18,100		
	First quarter.....	a/r/ 662,272	a/r/ 622,221	a/r/ 98,644	80,303	a/ 1,058,268	a/r/ 1,089,565	a/r/ 141,461	a/ 45,884		
3253114041	All other (liquor sales, melamine, feedstock, other).....	267,947	257,088	56,530	(X)	170,928	(D)	(D)	(X)		
	Fourth quarter.....	71,578	(D)	(D)	(D)	32,696	(D)	(D)	(D)		
	Third quarter.....	81,638	78,870	15,505	(D)	57,278	(D)	(D)	(D)		
	Second quarter.....	61,919	(D)	(D)	(D)	21,785	(D)	(D)	(D)		
	First quarter.....	52,812	(D)	(D)	(D) b/	59,169	(D)	(D)	(D)		
3253121000	Phosphoric acid (100 percent P2O5).....	11,566,034	3,142,382	814,254	(X)	12,492,002	r/ 3,952,015	r/ 1,126,144	(X)		
	Fourth quarter.....	3,336,659	999,024	200,504	166,024	r/ 3,037,814	r/ 1,005,606	r/ 289,976	189,196		
	Third quarter.....	2,789,167	755,630	135,546	166,410	r/ 3,072,511	r/ 894,378	r/ 264,283	175,006		
	Second quarter.....	2,645,934	r/ 660,987	228,917	163,307	r/ 3,156,497	r/ 1,017,788	r/ 286,981	199,651		
	First quarter.....	2,794,274	r/ 726,741	249,287	176,073	r/ 3,225,180	r/ 1,034,243	r/ 284,904	201,406		
3253121111	Thermal.....	156,206	132,091	76,086	(X) r/	267,709	187,916	80,456	(X)		
	Fourth quarter.....	a/r/ 30,438	a/ 29,504	a/ 21,485	6,719	a/r/ 51,089	a/ 39,637	a/r/ 25,656	5,157		
	Third quarter.....	a/ 35,733	a/ 31,266	a/ 23,014	4,641	a/ 64,843	a/ 45,270	a/r/ 27,566	6,344		
	Second quarter.....	a/ 37,792	a/ 31,883	a/ 23,119	5,347	a/ 77,600	a/ 53,800	a/r/ 32,163	6,795		
	First quarter.....	a/ 52,243	a/ 39,438	a/ 27,852	6,156	a/r/ 74,177	a/ 49,209	a/r/ 24,277	6,002		
3253121121	Wet.....	11,409,828	3,010,291	718,784	(X) r/	12,224,293	r/ 3,764,099	r/ 1,016,482	(X)		
	Fourth quarter.....	3,306,221	969,520	179,019	159,305	r/ 2,986,725	r/ 965,969	r/ 264,320	184,039		
	Third quarter.....	2,753,434	724,364	112,532	161,769	r/ 3,007,668	r/ 849,108	r/ 236,717	168,862		
	Second quarter.....	2,608,142	r/ 629,104	205,798	157,960	r/ 3,078,897	r/ 963,988	r/ 254,818	192,856		
	First quarter.....	2,742,031	r/ 687,303	b/ 221,435	169,917	r/ 3,151,003	r/ 985,034	r/ 260,627	195,404		
3253121211	By use:										
	Fertilizer.....	10,742,771	(D)	(D)	(X) r/	11,479,416	(D)	(D)	(X)		
	Fourth quarter.....	3,129,076	(D)	(D)	(D) r/	2,803,212	(D)	(D)	(D)		
	Third quarter.....	2,590,063	(D)	(D)	(D) r/	2,833,982	(D)	(D)	(D)		
	Second quarter.....	2,444,035	(D)	(D)	(D) r/	2,890,351	(D)	(D)	(D)		
3253121221	Feed and other.....	2,579,597	(D)	(D)	(D) r/	2,951,871	(D)	(D)	(D)		
	Fourth quarter.....	667,057	(D)	(D)	(X)	744,877	(D)	(D)	(X)		
	Third quarter.....	177,145	(D)	(D)	(D)	183,513	(D)	(D)	(D)		
	Second quarter.....	163,371	(D)	(D)	(D)	173,686	(D)	(D)	(D)		
	First quarter.....	164,107	(D)	(D)	(D)	188,546	(D)	(D)	(D)		
3253121311	By grade:										
	Ortho (less than 65 percent P2O5).....	9,903,379	1,686,132	425,960	(X) r/	10,712,176	r/ 2,392,420	r/ 664,065	(X)		
	Fourth quarter.....	2,821,800	(D)	(D)	135,227	(D)	(D)	(D)	162,361		
	Third quarter.....	2,438,256	(D)	(D)	141,218	r/ 2,636,678	(D)	(D)	153,903		
	Second quarter.....	2,256,995	327,735	106,725	137,792	r/ 2,718,010	(D)	(D)	171,957		
3253121321	Super (more than 65 percent P2O5).....	2,386,328	369,575	118,449	151,780	(D)	(D)	(D)	176,164		
	Fourth quarter.....	1,506,449	1,324,159	292,824	(X)	1,512,117	1,371,679	r/ 352,417	(X)		
	Third quarter.....	484,421	(D)	(D)	24,078	(D)	(D)	(D)	21,678		
	Second quarter.....	315,178	(D)	(D)	20,551	370,990	(D)	(D)	14,759		
	First quarter.....	351,147	301,369	99,073	20,168	360,887	(D)	(D)	20,899		
3253124000	Superphosphate and other phosphatic fertilizer materials:										
	Gross weight.....	17,206,449	14,793,333	(X)	(X)	18,843,099	15,537,133	(X)	(X)		
	Fourth quarter.....	5,008,137	4,374,257	(X)	476,324	4,375,974	3,663,937	(X)	676,418		
	Third quarter.....	4,230,357	3,797,931	(X)	499,804	4,904,311	3,724,322	(X)	587,831		
	Second quarter.....	3,881,965	3,494,292	(X)	578,077	4,690,095	3,969,988	(X)	610,496		
	First quarter.....	4,085,990	3,126,853	(X)	726,050	4,872,719	4,178,886	(X)	1,095,294		
	Nitrogen content.....	2,571,283	(X)	(X)	(X)	2,816,548	(X)	(X)	(X)		
	Fourth quarter.....	723,070	(X)	(X)	(X)	649,939	(X)	(X)	(X)		
	Third quarter.....	606,333	(X)	(X)	(X)	706,061	(X)	(X)	(X)		
	Second quarter.....	r/ 622,077	(X)	(X)	(X)	754,437	(X)	(X)	(X)		
	First quarter.....	r/ 619,803	(X)	(X)	(X)	706,111	(X)	(X)	(X)		
	Phosphoric oxide content (100 percent P2O5).....	8,109,404	7,920,556	2,045,483	(X)	8,898,997	8,822,359	2,648,934	(X)		
	Fourth quarter.....	2,376,081	2,210,474	533,055	(X)	2,055,251	2,016,661	622,440	(X)		
	Third quarter.....	1,994,812	1,793,807	467,272	(X)	2,321,620	2,334,992	673,406	(X)		
	Second quarter.....	1,845,340	1,857,947	526,840	(X)	2,184,709	2,172,337	673,798	(X)		
First quarter.....	1,893,171	2,058,328	518,316	(X)	2,337,417	2,298,369	679,290	(X)			
3253124111	Normal and enriched:										
	Gross weight.....	(D)	(D)	(X)	(X)	(D)	(D)	(X)	(X)		
	Fourth quarter.....	(D)	(D)	(X)	(D)	(D)	(D)	(X)	(D)		
	Third quarter.....	(D)	(D)	(X)	(D)	(D)	(D)	(X)	(D)		
	Second quarter.....	(D)	(D)	(X)	(D)	(D)	(D)	(X)	(D)		
	First quarter.....	(D)	(D)	(X)	(D)	(D)	(D)	(X)	(D)		
	Nitrogen content.....	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)		
	Fourth quarter.....	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)		
	Third quarter.....	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)		
	Second quarter.....	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)		
	First quarter.....	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)		
	Phosphoric oxide content (100 percent P2O5).....	(D)	(D)	(D)	(X)	(D)	(D)	(D)	(X)		
	Fourth quarter.....	(D)	(D)	(D)	(X)	(D)	(D)	(D)	(X)		
	Third quarter.....	(D)	(D)	(D)	(X)	(D)	(D)	(D)	(X)		
	Second quarter.....	(D)	(D)	(D)	(X)	(D)	(D)	(D)	(X)		
First quarter.....	(D)	(D)	(D)	(X)	(D)	(D)	(D)	(X)			

Continued

Table 2. Production, Shipments, Consumption, and Stocks of Fertilizer Materials and Other Related Chemicals  
 [(Quantity in short tons. Value in thousands of dollars)]

Product code	Chemical and basis	2001				2000			
		Total production	Total shipments, including interplant transfers		Stocks 1/	Total production	Total shipments, including interplant transfers		Stocks 1/
			Quantity	Value			Quantity	Value	
3253124121	Concentrated:								
	Gross weight.....	(D)	(D)	(X)	(X)	(D)	(D)	(X)	(X)
	Fourth quarter.....	(D)	(D)	(X)	(D)	(D)	(D)	(X)	(D)
	Third quarter.....	(D)	(D)	(X)	(D)	(D)	(D)	(X)	(D)
	Second quarter.....	(D)	(D)	(X)	(D)	(D)	(D)	(X)	(D)
	First quarter.....	(D)	(D)	(X)	(D)	(D)	(D)	(X)	(D)
	Nitrogen content.....	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
	Fourth quarter.....	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
	Third quarter.....	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
	Second quarter.....	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
	First quarter.....	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	(D)	(D)	(D)	(X)	(D)	(D)	(D)	(X)
	Fourth quarter.....	(D)	(D)	(D)	(X)	(D)	(D)	(D)	(X)
Third quarter.....	(D)	(D)	(D)	(X)	(D)	(D)	(D)	(X)	
Second quarter.....	(D)	(D)	(D)	(X)	(D)	(D)	(D)	(X)	
First quarter.....	(D)	(D)	(D)	(X)	(D)	(D)	(D)	(X)	
3253124131	Monoammonium phosphates:								
	Gross weight.....	4,324,335	3,910,677	(X)	(X)	4,564,793	3,994,137	(X)	(X)
	Fourth quarter.....	1,222,534	1,232,614	(X)	120,652	1,050,105	909,737	(X)	168,319
	Third quarter.....	1,013,443	888,687	(X)	165,722	1,362,202	974,274	(X)	156,983
	Second quarter.....	940,051	985,682	(X)	r/ 181,767	860,053	1,026,239	(X)	127,036
	First quarter.....	1,148,307	803,694	(X)	247,898	1,292,433	1,083,887	(X)	179,982
	Nitrogen content.....	500,112	(X)	(X)	(X)	523,158	(X)	(X)	(X)
	Fourth quarter.....	r/ 103,112	(X)	(X)	(X)	114,381	(X)	(X)	(X)
	Third quarter.....	r/ 86,352	(X)	(X)	(X)	126,556	(X)	(X)	(X)
	Second quarter.....	r/ 157,709	(X)	(X)	(X)	123,880	(X)	(X)	(X)
	First quarter.....	r/ 152,939	(X)	(X)	(X)	158,341	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	2,232,618	2,034,362	540,115	(X)	2,351,165	2,336,828	663,824	(X)
	Fourth quarter.....	627,408	536,738	135,840	(X)	540,796	524,431	145,673	(X)
Third quarter.....	523,471	451,407	130,034	(X)	702,644	696,204	165,422	(X)	
Second quarter.....	516,749	540,956	145,457	(X)	440,733	456,152	158,065	(X)	
First quarter.....	564,990	505,261	128,784	(X)	666,992	660,041	a/ 194,664	(X)	
3253124211	Diammonium phosphates:								
	Gross weight.....	11,028,515	9,329,700	(X)	(X)	12,387,212	9,934,881	(X)	(X)
	Fourth quarter.....	a/ 3,244,974	2,708,549	(X)	239,377	2,878,745	a/ 2,414,484	(X)	384,571
	Third quarter.....	a/ 2,794,838	2,502,502	(X)	233,834	3,112,127	a/ 2,350,508	(X)	346,853
	Second quarter.....	2,485,775	a/ 2,134,311	(X)	266,498	3,365,598	a/ 2,541,781	(X)	397,518
	First quarter.....	2,502,928	1,984,338	(X)	324,513	3,030,742	a/ 2,628,108	(X)	759,174
	Nitrogen content.....	2,015,644	(X)	(X)	(X)	2,247,295	(X)	(X)	(X)
	Fourth quarter.....	a/r/ 590,967	(X)	(X)	(X)	526,287	(X)	(X)	(X)
	Third quarter.....	a/ 510,277	(X)	(X)	(X)	569,868	(X)	(X)	(X)
	Second quarter.....	454,751	(X)	(X)	(X)	617,260	(X)	(X)	(X)
	First quarter.....	459,649	(X)	(X)	(X)	533,880	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	5,078,207	5,152,538	1,333,249	(X)	5,762,551	5,734,081	1,775,090	(X)
	Fourth quarter.....	a/ 1,495,896	r/ 1,462,286	351,601	(X)	1,327,497	a/ 1,320,085	r/ 426,023	(X)
Third quarter.....	a/ 1,288,474	1,145,814	293,782	(X)	1,434,206	a/ 1,454,757	459,957	(X)	
Second quarter.....	1,145,792	1,143,112	339,124	(X)	1,551,766	a/ 1,518,474	a/ 462,335	(X)	
First quarter.....	1,148,045	1,401,326	348,742	(X)	1,449,082	1,440,765	a/ 426,775	(X)	
3253124222	Other ammonium phosphates and other phosphatic fertilizer materials:								
	Gross weight.....	581,651	326,770	(X)	(X)	r/ 517,599	r/ 331,723	(X)	(X)
	Fourth quarter.....	a/r/ 238,734	b/ 138,408	(X)	56,964	b/r/ 106,329	(S)	(X)	(D)
	Third quarter.....	a/r/ 101,026	b/r/ 65,202	(X)	52,559	b/r/ 106,815	b/r/ 85,397	(X)	(D)
	Second quarter.....	a/r/ 144,600	b/ 67,553	(X)	(D)	b/r/ 150,148	(S)	(X)	(D)
	First quarter.....	a/r/ 97,291	b/ 55,607	(X)	57,199	b/r/ 154,307	b/r/ 117,409	(X)	(D)
	Nitrogen content.....	38,695	(X)	(X)	(X)	32,798	(X)	(X)	(X)
	Fourth quarter.....	r/ 28,991	(X)	(X)	(X)	9,271	(X)	(X)	(X)
	Third quarter.....	9,704	(X)	(X)	(X)	9,637	(X)	(X)	(X)
	Second quarter.....	(D)	(X)	(X)	(X)	(D)	(X)	(X)	(X)
	First quarter.....	(D)	(X)	(X)	(X)	(D)	(X)	(X)	(X)
	Phosphoric oxide content (100 percent P2O5).....	211,779	163,903	38,415	(X)	(D)	(D)	r/ 53,457	(X)
	Fourth quarter.....	b/r/ 105,693	(D)	(D)	(X)	(D)	(D)	(D)	(X)
Third quarter.....	b/ 32,981	(D)	(D)	(X)	(D)	(D)	(D)	(X)	
Second quarter.....	(S)	(S)	(S)	(X)	(D)	(D)	(D)	(X)	
First quarter.....	b/ 29,540	(S)	b/ 6,850	(X)	(D)	(D)	(D)	(X)	
3251881000	Sulfuric acid (100 percent): 5/								
	Total gross.....	40,793,499	11,610,403	566,131	(X)	43,642,859	r/ 11,929,655	572,126	(X)
	Fourth quarter.....	a/ 11,196,459	b/r/ 2,802,930	b/r/ 138,480	a/r/ 738,785	a/ 10,878,442	b/r/ 3,020,930	b/ 139,669	b/ 564,830
	Third quarter.....	a/ 10,051,633	b/r/ 2,981,434	b/r/ 142,556	b/r/ 496,154	a/ 10,904,341	b/r/ 3,041,206	b/ 146,250	b/ 420,154
	Second quarter.....	a/ 9,731,436	b/r/ 2,919,533	b/r/ 143,081	b/r/ 579,510	a/ 10,894,367	b/r/ 2,970,304	b/ 147,211	a/ 533,637
	First quarter.....	a/ 9,813,971	b/r/ 2,906,506	b/r/ 142,014	b/r/ 567,688	a/ 10,965,709	b/r/ 2,897,215	b/ 138,996	a/r/ 634,347
3251881111	By feedstock:								
	Elemental sulfur.....	33,421,753	6,570,821	332,739	(X)	35,651,192	7,203,739	r/ 337,704	(X)
	Fourth quarter.....	a/ 9,690,204	b/ 1,577,175	b/r/ 81,459	(X)	a/ 8,871,457	b/ 1,747,790	b/r/ 80,852	(X)
	Third quarter.....	a/ 8,209,913	b/ 1,716,021	b/r/ 83,876	(X)	a/ 8,856,937	b/ 1,804,877	b/r/ 82,353	(X)
	Second quarter.....	a/ 7,550,909	b/ 1,591,270	b/r/ 79,737	(X)	8,803,678	b/ 1,797,779	b/r/ 83,414	(X)
3251881121	Smelting metallic sulfide ore.....	2,677,699	2,499,188	55,591	(X)	r/ 2,921,330	r/ 2,241,604	r/ 50,747	(X)
	Fourth quarter.....	b/r/ 677,160	(S)	(S)	(X)	b/r/ 706,348	(S)	(S)	(X)
	Third quarter.....	b/r/ 600,214	(S)	(S)	(X)	b/r/ 750,683	(S)	(S)	(X)
	Second quarter.....	b/r/ 694,186	(S)	(S)	(X)	b/r/ 743,817	b/r/ 520,551	b/r/ 12,905	(X)
	First quarter.....	b/r/ 706,139	(S)	(S)	(X)	b/r/ 720,482	b/r/ 547,657	b/r/ 12,831	(X)
3251881130	Decomposition of alkylation and other spent acid.....	3,922,815	2,012,148	150,692	(X)	r/ 4,172,942	r/ 1,877,100	r/ 147,295	(X)
	Fourth quarter.....	a/ 633,950	b/r/ 447,894	b/r/ 35,349	(S)	a/r/ 1,067,214	b/r/ 487,679	b/r/ 38,126	(S)
	Third quarter.....	a/ 1,047,294	b/ 551,192	b/ 38,541	(S)	a/r/ 1,070,572	b/r/ 554,893	b/r/ 42,395	(S)
	Second quarter.....	a/ 1,296,620	b/ 560,693	b/ 42,880	(S)	a/r/ 1,120,864	a/ 497,792	b/ 41,309	(S)
	First quarter.....	a/ 944,951	b/ 452,369	b/ 33,922	(S)	a/r/ 914,292	b/r/ 336,736	b/ 25,465	(S)
3251881141	Other.....	771,232	528,246	27,109	(X)	r/ 897,395	r/ 607,212	r/ 36,380	(X)
	Fourth quarter.....	a/r/ 195,145	a/ 129,374	a/ 6,606	(X)	b/r/ 233,423	(S)	(S)	(X)
	Third quarter.....	a/r/ 194,212	a/ 147,668	a/ 7,496	(X)	a/r/ 226,149	a/r/ 142,377	b/r/ 8,304	(X)
	Second quarter.....	a/r/ 189,721	a/ 126,714	a/ 6,563	(X)	a/r/ 226,008	a/r/ 154,182	b/r/ 9,583	(X)
	First quarter.....	a/r/ 192,154	a/ 124,490	a/ 6,444	(X)	a/r/ 211,815	b/r/ 159,529	b/r/ 9,615	(X)

Table 2. Production, Shipments, Consumption, and Stocks of Fertilizer Materials and Other Related Chemicals  
 [(Quantity in short tons. Value in thousands of dollars)]

Product code	Chemical and basis	2001				2000			
		Total production	Total shipments, including interplant transfers		Stocks 1/	Total production	Total shipments, including interplant transfers		Stocks 1/
			Quantity	Value			Quantity	Value	
3251881212	By grade:								
	Oleum grades.....	1,732,682	1,285,659	65,349	(X) r/ 1,967,543	1,467,677	r/ 74,511	(X)	
	Fourth quarter.....	b/r/ 476,303	b/ 325,604	b/ 16,509	b/r/ 472,725	(S)	(S)	b/ 30,315	
	Third quarter.....	b/r/ 445,032	b/ 332,829	b/ 16,841	b/r/ 489,838	b/ 359,451	b/r/ 18,831	b/ 21,098	
	Second quarter.....	b/r/ 380,499	b/ 295,032	b/ 15,005	a/ 14,340 b/r/ 505,846	b/ 369,915	b/r/ 18,294	b/ 17,413	
	First quarter.....	b/r/ 430,848	b/ 332,194	b/ 16,994	b/r/ 29,930 b/r/ 499,134	b/ 378,985	b/r/ 18,308	b/ 20,197	
3251881231	Other than oleum grades.....	39,060,817	10,324,744	500,782	(X) 41,675,316	r/ 10,461,978	r/ 497,615	(X)	
	Fourth quarter.....	a/ 10,720,156	b/r/ 2,477,326	b/r/ 121,971	a/r/ 703,954 a/ 10,405,717	b/r/ 2,661,604	b/r/ 120,591	b/ 534,515	
	Third quarter.....	a/ 9,606,601	b/r/ 2,648,605	b/ 125,715	b/r/ 477,506 a/ 10,414,503	b/r/ 2,681,755	b/r/ 127,419	b/ 399,056	
	Second quarter.....	a/ 9,350,937	b/r/ 2,624,501	b/ 128,076	b/r/ 565,170 a/ 10,388,521	b/r/ 2,600,389	b/r/ 128,917	a/ 516,224	
	First quarter.....	a/ 9,383,123	b/r/ 2,574,312	b/ 125,020	b/r/ 537,758 a/ 10,466,575	b/r/ 2,518,230	b/r/ 120,688	a/r/ 614,150	
3251881311	Spent acid fortified in contact units and included in above production data.....	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
	Fourth quarter.....	(X)	(X)	(X)	(D)	(X)	(X)	(D)	(D)
	Third quarter.....	(X)	(X)	(X)	(D)	(X)	(X)	(D)	(D)
	Second quarter.....	(X)	(X)	(X)	(D)	(X)	(X)	(D)	(D)
	First quarter.....	(X)	(X)	(X)	(D)	(X)	(X)	(D)	(D)
	Total new acid 6/.....	36,870,684	(X)	(X)	(X) 39,469,917	(X)	(X)	(X)	(X)
	Fourth quarter.....	10,562,509	(X)	(X)	(X) 9,811,228	(X)	(X)	(X)	(X)
	Third quarter.....	9,004,339	(X)	(X)	(X) 9,833,769	(X)	(X)	(X)	(X)
	Second quarter.....	8,434,816	(X)	(X)	(X) 9,773,503	(X)	(X)	(X)	(X)
	First quarter.....	8,869,020	(X)	(X)	(X) 10,051,417	(X)	(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 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/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: 2001 and 2000  
[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
2001							
3253111120	Ammonia, synthetic anhydrous.....	11,374.2	(D)	(D)	5,542.8	16,917.0	32.8
3253111201	Ammonium nitrate, original solution.....	6,278.2	19.3	0.3	952.5	7,211.4	13.2
3253111250	Nitrogen solutions, ammonium nitrate/ urea solutions.....	2,762.4	33.9	1.2	1,994.7	4,723.2	42.2
3253111240	Ammonium sulfate.....	2,318.7	668.1	28.8	335.4	1,986.0	16.9
3253114000	Urea.....	6,198.6	791.7	12.8	4,799.5	10,206.5	47.0
3253121000	Phosphoric acid.....	10,492.7	(D)	(D)	111.8	(D)	(D)
3253124111	Normal and enriched superphosphate.....	(D)	(D)	(D)	(D)	(D)	(D)
3253124121	Concentrated superphosphate.....	(D)	682.9	(D)	(D)	(D)	(D)
3253124211	Diammonium phosphates.....	10,005.1	6,410.6	64.1	133.5	3,728.0	3.6
3251881000	Sulfuric acid, gross.....	37,007.9	209.7	0.6	1,414.4	38,212.6	3.7
2000							
3253111120	Ammonia, synthetic anhydrous.....	r/ 14,342.2	(D)	(D)	3,798.0	18,140.2	20.9
3253111201	Ammonium nitrate, original solution.....	r/ 7,238.9	21.4	0.3	817.6	8,035.1	10.2
3253111250	Nitrogen solutions, ammonium nitrate/ urea solutions.....	r/ 3,177.7	22.8	0.7	1,305.4	4,460.3	29.3
3253111240	Ammonium sulfate.....	2,547.1	983.0	38.6	347.1	1,911.2	18.2
3253114000	Urea.....	6,968.8	662.7	9.5	3,903.9	10,210.0	38.2
3253121000	Phosphoric acid.....	11,332.7	(D)	(D)	69.2	(D)	(D)
3253124111	Normal and enriched superphosphate.....	(D)	(D)	(D)	(D)	(D)	(D)
3253124121	Concentrated superphosphate.....	(D)	544.8	(D)	(D)	(D)	(D)
3253124211	Diammonium phosphates.....	11,237.7	7,619.0	67.8	123.3	3,741.9	3.3
3251881000	Sulfuric acid, gross.....	39,592.8	190.6	0.5	1,417.0	40,819.2	3.5

D Withheld to avoid disclosing data for individual companies. r/Revised by 5 percent or more from previously published data.

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 Schedule B Export Codes, and HTSUSA Import Codes: 2001**

<b>Product code</b>	<b>Product description</b>	<b>Export code 1/</b>	<b>Import code 2/</b>
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
3253114001	Urea.....	3102.10.0000	3102.10.0000
3253121101	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
3251881000	Sulfuric acid.....	2807.00.0000	2807.00.0000

1/Source: 2001 edition, Harmonized System-based Schedule B, Statistical Classification of Domestic and Foreign Commodities Exported from the United States.

2/Source: Harmonized Tariff Schedule of the United States, Annotated (2001).



# Appendix.

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

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### 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.)

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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.

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**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.