

UNITED STATES DEPARTMENT OF
COMMERCE
NEWS

WASHINGTON, D.C. 20233

ECONOMICS AND STATISTICS
ADMINISTRATION

BUREAU OF THE
CENSUS

CURRENT INDUSTRIAL REPORTS

**FERTILIZER MATERIALS
MA28B
ANNUAL REPORT 1994**

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Issued August 1995

SCOPE OF SURVEY—The statistics in this publication were collected on annual form MA28B. This survey covers establishments manufacturing inorganic fertilizer chemicals, phosphatic fertilizer materials, and sulfuric acid; except spent sulfuric acid recovered by hydrolysis and evaporation. The panel for this survey consist of all known producers of these products, approximately 234 establishments.

SURVEY METHODOLOGY—Data for the 1994 annual may include estimates for reports which were not received in time for tabulation. Data for the missing reports are "imputed" based on year-to-year movement shown by reporting firms. Data cells with imputation greater than 20 percent are footnoted.

REVISIONS—Data for previous years may be revised due to corrected data from respondents, including data for reports received to late to include in the original publication. Figures which have been revised by more than 5 percent are footnoted.

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SUMMARY OF FINDINGS

United States production of sulfuric acid in 1994 totaled 44,813.0 thousand short tons (100 percent H₂SO₄), approximately 12.5 percent above the 1993 figure of 39,838.5 thousand short tons. Value of shipments (including interplant transfers) in 1994 amounted to \$487.5 million, as compared to the 1993 value of \$515.9 million.

Value of shipments of synthetic ammonia, nitric acid, and ammonium compounds increased 17.8 percent to \$3,319.7 million in 1994 from the 1993 level of \$2,816.2 million. Shipments of urea increased 5.8 percent to \$657.2 million in 1994, and shipments of phosphoric acid increased 11.9 percent to \$1,084.6 million.

Production of superphosphate and other phosphatic fertilizer materials for 1994 increased 13.9 percent to 10,023.9 thousand short tons (100 percent P₂O₅). Value of shipments amounted to \$2,830.4 million in 1994, as compared to the 1993 value of \$2,057.3 million.

Table 1. SHIPMENTS AND PRODUCTION OF PRINCIPAL FERTILIZER MATERIALS: 1990 TO 1994
(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)
28731 31	Ammonia, synthetic anhydrous (1).....	1994	17,256.4	10,410.5	1,509.3
		1993	17,195.2	10,435.5	1,174.3
		1992	17,924.2	10,642.5	1,095.4
		1991	17,169.2	10,002.2	1,036.0
		1990	17,003.3	10,381.6	1,072.1
28731 50	Ammonium nitrate, original solution (2).....	1994	8,516.6	(X)	(X)
		1993	8,280.9	(X)	(X)
		1992	7,980.6	(X)	(X)
		1991	7,819.2	(X)	(X)
		1990	7,713.7	(X)	(X)
28731 57	Ammonium sulfate (1).....	1994	2,587.8	2,488.6	164.5
		1993	2,432.4	2,416.9	150.4
		1992	2,391.0	2,239.3	139.6
		1991	2,243.0	2,251.3	129.9
		1990	2,519.0	2,528.7	130.1
28732 --	Urea (100%).....	1994	7,952.1	5,098.5	657.2
		1993	8,329.6	5,254.8	629.6
		1992	8,766.3	5,343.0	695.7
		1991	8,132.8	5,431.5	722.6
		1990	8,216.8	5,361.8	639.5
28731 11	Nitric acid (100%).....	1994	8,611.1	964.3	118.3
		1993	8,253.9	678.0	88.5
		1992	8,136.0	672.0	85.4
		1991	7,926.6	623.1	81.8
		1990	7,931.0	647.4	80.6
28741 81 28741 85	Phosphoric acid (100% P2O5).....	1994	12,792.2	4,227.9	1,084.6
		1993	11,515.1	3,687.5	969.3
		1992	12,825.9	4,375.0	1,181.5
		1991	12,109.4	4,397.6	1,282.0
		1990	12,034.5	4,169.7	1,226.3
28193 --	Sulfuric acid, gross (100%).....	1994	44,813.0	11,916.4	487.5
		1993	39,838.5	11,362.0	515.9
		1992	44,523.7	10,950.2	528.7
		1991	43,466.1	11,536.3	586.5
		1990	44,336.9	11,878.6	589.4
28742 --	Superphosphates and other fertilizer materials (100% P2O5).....	1994	10,023.9	9,972.6	2,830.4
		1993	8,800.9	8,813.8	2,057.3
		1992	9,696.0	9,665.6	2,530.1
		1991	9,043.9	9,017.0	2,832.4
		1990	8,981.5	9,015.8	2,711.2

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

(2) Represents total amount of original solution produced for all purposes.

Table 2. PRODUCTION AND SHIPMENTS OF FERTILIZER MATERIALS: 1994 AND 1993
(Quantity in thousands of short tons; value in millions of dollars)

Product code	Chemical and basis	1994			1993		
		Total production	Total shipments including interplant transfers		Total production	Total shipments including interplant transfers	
			Quantity	Value		Quantity	Value
28193 --	Sulfuric acid, gross (new and fortified).....	44812.96	11916.38	487.457	39838.494	11361.985	515.94
28193 11	Oleum under 40 percent.....	1,341.5	841.2	41.6	1,282.5	767.4	43.3
28193 15	Oleum 40 percent.....	(D)	(D)	(D)	(D)	(D)	(D)
28193 17	Oleum over 40 percent.....	(D)	(D)	(D)	(D)	(D)	(D)
28193 31	Other than oleum (1).....	43,218.1	10,821.7	430.1	38,278.9	10,324.6	455.2
28193 51	Sulfuric acid produced through decomposition of alkylation acid and other spent acids, including sulfuric acid sludge.....	(D)	(X)	(X)	(D)	(X)	(X)
28731 --	Synthetic ammonia, nitric acid, and ammonium compounds.....	(X)	(X)	3319.738	(X)	(X)	2,816.2
28731 11	Nitric acid (100% HNO3).....	2) 8,611.1	964.3	118.3	2) 8,523.8	677.992	88.506
28731 31	Ammonia, synthetic anhydrous (100% NH3)(3).....	17256.419	10410.527	1509.312	17195.192	10435.501	1174.348
28731 30	Fertilizer use.....	15,430.8	9,111.7	1,336.7	15,427.0	9,335.5	1,052.1
28731 32	Other uses.....	1,825.6	1,298.8	172.6	1,768.2	1,100.0	122.3
28731 50	Ammonium nitrate: Original solution (100% NH4 NO3)(4).....	8516.586	(X)	(X)	8280.867	(X)	(X)
	Fertilizer use (100% NH4 NO3): Solution.....	3997.893	328.909	34.035	3,913.7	268.8	24.2
28731 52	Solution produced for sale.....	260.7	(D)	(D)	226.4	(D)	(D)
28731 54	Solution produced for consumption.....	3,737.2	(D)	(D)	3,687.2	(D)	(D)
28731 51	Solid.....	2,251.0	2,456.7	322.1	2,225.8	2,169.0	256.3
28731 53	Explosives and other uses (solution and solid).....	2,267.7	2,117.7	309.7	2,141.4	2,016.4	238.6
28731 55	Nitrogen solutions (100% N) (including mixtures containing urea).....	3493.082	3180.343	751.052	3584.327	3463.971	748.303
28731 65	Solutions containing ammonia (5).....	131.4	107.7	17.0	127.4	129.6	24.5
28731 66	Ammonium nitrate/urea solutions.....	3,361.7	3,072.6	734.0	3,456.9	3,334.4	723.8
28731 73	Ammonium nitrate/calcium nitrate solutions.....	(5)	(5)	(5)	(5)	(5)	(5)
28731 67	All other two component products.....	(5)	(5)	(5)	(5)	(5)	(5)
28731 57	Ammonium sulfate, synthetic and byproduct other than coke oven byproduct (100% (NH4)2 SO4)(3).....	2587.784	2488.584	164.535	2432.368	2416.864	150.405
28731 56	Synthetic.....	(D)	(D)	(D)	(D)	(D)	(D)
28731 58	Byproduct, other than coke oven.....	(D)	(D)	(D)	(D)	(D)	(D)
28731 69	Other ammonium compounds (including ammonium chloride, gray and white).....	(X)	(X)	110.7	(X)	(X)	135.6
28732 --	Urea (100%).....	7952.058	5098.45	657.239	8329.636	5254.799	629.622
28732 16	For fertilizer use: Solutions produced as intermediate in nitrogen solutions.....	2,864.1	(D)	(D)	3,123.8	(D)	(D)
28732 18	Solid.....	4,243.0	4,210.8	542.5	4,236.8	4,236.8	490.1
28732 21	Other uses: Feed (solid and solution).....	241.9	(D)	(D)	300.8	(D)	(D)
28732 22	All other (solid and solution).....	602.9	613.6	78.3	668.2	679.4	89.4
28741 --	Phosphoric acid (100% P2O5).....	12792.152	4227.865	1084.601	11515.066	3687.523	969.309
28741 81	Thermal.....	324.2	163.1	139.2	322.1	148.1	123.5
28741 85	Wet.....	12,468.0	4,064.8	945.4	11,193.0	3,539.5	845.8
28741 86	By use: Fertilizer.....	11,588.8	3,521.6	755.3	10,324.7	3,000.8	652.0
28741 87	Feed and other.....	879.0	543.2	190.1	868.3	538.7	193.8
28741 88	By grade: Ortho (less than 65% P2O5).....	11,252.1	3,078.8	606.1	10,068.0	2,692.1	600.6
28741 89	Super (65% or more P2O5).....	1,215.7	986.0	339.3	1,125.0	847.4	245.2
28742 --	Superphosphates and other phosphatic fertilizer materials: Gross weight.....	19071.261	18797.811	(6)	17022.758	16820.528	(6)
28742 15	Phosphoric oxide content (100% P2O5).....	10023.881	9972.579	2830.411	8800.858	8813.809	2057.322
28742 15	Normal and enriched superphosphates:						

Continued

Table 2. PRODUCTION AND SHIPMENTS OF FERTILIZER MATERIALS: 1994 AND 1993
(Quantity in thousands of short tons; value in millions of dollars)

Product code	Chemical and basis	1994			1993		
		Total production	Total shipments including Interplant transfers		Total production	Total shipments including Interplant transfers	
			Quantity	Value		Quantity	Value
	AND						
28742 41	Concentrated superphosphates:						
	Gross weight.....	1,887.7	1,704.4	(6)	1,532.1	1,368.8	(6)
	Phosphoric oxide content (100% P2O5).....	853.3	811.8	197.2	765.4	753.5	153.1
28742 51	Monoammonium phosphates:						
	Gross weight.....	2,935.5	2,976.3	(6)	2,869.8	2,903.8	(6)
	Phosphoric oxide content (100% P2O5).....	1,754.1	1,788.6	473.8	1,543.4	1,544.5	359.2
28742 52	Diammonium phosphates:						
	Gross weight.....	13,568.0	13,503.4	(6)	12,016.3	11,998.7	(6)
	Phosphoric oxide content (100% P2O5).....	77,049.8	7,017.0	2,072.0	6,130.0	6,179.7	1,456.4
28742 55	Other ammonium phosphates:						
	AND						
28742 61	Other phosphatic fertilizer materials:						
	Gross weight.....	680.0	613.7	(6)	604.6	549.2	(6)
	Phosphoric oxide content (100% P2O5).....	445.6	434.1	87.4	362.1	336.1	88.6

(D) Data withheld to avoid disclosing figures for individual companies. r) Revised
(X) Not applicable.

- (1) Figures for "Other than oleum" include "Chamber process acid."
- (2) Includes unspecified amounts of nitric acid produced but not withdrawn from the system.
- (3) Excludes data for byproduct ammonia liquor and ammonium sulfate published by the Department of Energy.
- (4) Represents total amount of original solution produced, including amounts used for fertilizer, explosives, and other uses and amounts consumed in manufacturing other products such as nitrogen solutions (product code 28731 55).
- (5) "Ammonium nitrate/calcium nitrate solutions" (product code 28731 73) and "All other two component products" (product code 28731 67) are combined with "solutions containing ammonia" (product code 28731 65) to avoid disclosing figures for individual companies.
- (6) Value for gross weight and (100% P2O5) are the same value for each 28742 product code.

Table 3. QUANTITIES OF SELECTED FERTILIZER MATERIALS PRODUCED AND CONSUMED IN THE SAME PLANT: 1994 AND 1993

Product code	Product description	Basis	Consumed in producing plants (thousands of short tons)	
			1994	1993
28193 --	Sulfuric acid, gross (new and fortified).....	100% H ₂ SO ₄	31,391.3	27,047.8
28731 11	Nitric acid.....	100% HNO ₃	7,774.5	7,919.5
28731 30				
28731 32	Ammonia (synthetic) anhydrous (1).....	100% HN ₃	6,982.9	6,944.0
	Ammonium nitrate:			
28731 52				
28731 54	Fertilizer use solution (2).....	100% NH ₄ NO ₃	3,473.9	3,644.7
28731 51	Fertilizer use solid.....	do.....	(D)	(D)
28731 53	Explosives and other uses (solution and solid).....	do.....	(D)	(D)
28731 57	Ammonium sulfate (1).....	100% (NH ₄) ₂ SO ₄	(D)	(D)
	Urea:			
28732 16				
28732 18	Fertilizer use, solution and solid.....	100% Urea.....	2,902.1	2,988.1
	Phosphoric acid.....			
28741 81	Thermal.....	100% P ₂ O ₅	8,401.9	7,846.9
28741 85	Wet.....	do.....	(D)	(D)
28742 --	Superphosphates and other fertilizer materials.....	do.....	31.8	34.5

(D) Data withheld to avoid disclosing figures for individual companies. r) Revised by 5 p

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

(2) Excludes amount converted to solid nitrate.

Table 4. SUMMARY OF SELECTED FERTILIZER MATERIALS -
 INTERPLANT TRANSFERS: 1994 AND 1993
 (Quantity in thousands of short tons; value in millions of dollars)

Product code	Product description	Basis	Year	Interplant transfers	
				Quantity	Value (f.o.b. plant)
28193 --	Sulfuric acid, gross (new and fortified).....	100% H2SO4.....	1994	2,176.3	40.4
			1993	2,066.8	51.2
28193 11	Oleum under 40 percent.....	do.....	1994	(D)	(D)
			1993	(D)	(D)
28193 15	Oleum 40 percent.....	do.....	1994	(D)	(D)
			1993	(D)	(D)
28193 17	Oleum over 40 percent.....	do.....	1994	(D)	(D)
			1993	(D)	(D)
28193 31	Other than oleum (1).....	do.....	1994	2,146.8	39.2
			1993	2,008.2	48.5
28731 31	Ammonia, synthetic anhydrous (2).....	100% NH3.....	1994	1,050.3	125.8
			1993	1,001.8	102.4
28731 30	Fertilizer use.....	do.....	1994	(D)	(D)
			1993	(D)	(D)
28731 32	Other uses.....	do.....	1994	(D)	(D)
			1993	(D)	(D)
28731 57	Ammonium sulfate (2).....	100% (NH4)2 SO4..	1994	(D)	(D)
			1993	(D)	(D)
28731 11	Nitric acid.....	100% HNO3.....	1994	(D)	(D)
			1993	(D)	(D)
28732 --	Urea.....	100% Urea.....	1994	(D)	(D)
			1993	(D)	(D)
28741 81 28741 85	Phosphoric acid.....	100% P2O5.....	1994	(D)	(D)
			1993	(D)	(D)
28742 --	Superphosphates and other phosphatic fertilizer materials.....	do.....	1994	(D)	(D)
			1993	(D)	(D)

(D) Data withheld to avoid disclosing figures for individual companies.

(1) Figures for "Other than oleum" includes chamber process acid.

(2) Excludes data for byproduct ammonia liquor and ammonium sulfate published by the Department of Energy.

Table 5. TOTAL SHIPMENTS (INCLUDING INTERPLANT TRANSFERS) OF
 SULFURIC ACID, BY STATES: 1994 AND 1993
 (Quantity in thousands of short tons of 100% H₂SO₄; value in millions of dollars)

State	1994		1993	
	Quantity	Value	Quantity	Value
United States.....	11,916.4	487.5	11,362.0	515.9
Arizona.....	(D)	(D)	(D)	(D)
California.....	850.3	40.4	684.6	38.6
Florida.....	633.1	16.2	433.6	8.7
Georgia.....	360.9	13.5	332.5	13.1
Illinois.....	(D)	(D)	(D)	(D)
Louisiana.....	1,724.0	83.3	1,718.8	96.4
New Jersey.....	(D)	(D)	(D)	(D)
Ohio.....	345.4	21.0	346.9	27.6
Texas.....	1,746.9	88.7	1,729.9	92.0
Virginia.....	(D)	(D)	(D)	(D)
Washington.....	(D)	(D)	(D)	(D)
Other states.....	3,875.9	155.9	3,876.4	162.8

(D) Data withheld to avoid disclosing figures for individual companies.

Table 6. PRODUCTION OF NEW SULFURIC ACID,
 BY STATES: 1994 AND 1993
 (Thousands of short tons of 100% H₂SO₄)

State	1994 (1)	1993 (1)
United States.....	42,262.2	39,838.5
Arizona.....	2,062.5	1,923.3
California.....	1,189.9	1,187.8
Florida.....	19,891.3	16,039.8
Georgia.....	517.9	504.1
Illinois.....	(D)	(D)
Louisiana.....	5,833.8	5,428.9
Missouri.....	(D)	(D)
New Jersey.....	(D)	(D)
New Mexico.....	(D)	(D)
Ohio.....	443.1	444.0
Oklahoma and Texas.....	3,207.5	3,006.9
Virginia.....	(D)	(D)
Washington.....	(D)	(D)
Other states.....	6,798.9	8,821.9

(D) Data withheld to avoid disclosing figures for individual companies.

(1) Includes data for Government-owned, privately-operated plants.

Table 7. PRIMARY PRODUCTION OF INORGANIC FERTILIZER CHEMICALS, BY QUARTER: 1994 AND 1993
(Thousands of short tons)

Product code	Product description	Year	Total	1st quarter	2nd quarter	3rd quarter	4th quarter	
28731 31	Ammonia, synthetic anhydrous (100% NH ₃):	Production.....	1994 17,256.4	4,362.8	4,235.7	4,220.2	4,437.8	
			1993 17,195.2	4,280.5	4,080.3	4,217.5	4,616.9	
		Stocks on hand, end of month.....	1994 (NA)	1,282.2	789.6	1,041.6	1,281.5	
			1993 (NA)	1,994.5	1,243.2	1,138.1	1,142.4	
28731 30	Fertilizer use:	Production.....	1994 15,430.8	3881.56	3817.045	3791.425	3940.779	
			1993 15,427.0	3886.445	3652.924	3745.12	4142.528	
		Stocks on hand, end of month.....	1994 (NA)	1138.6	573.6	746.954	924.414	
			1993 (NA)	1804	1085.4	956.2	987.8	
28731 32	Other uses:	Production.....	1994 1,825.6	476.992	424.94	432.527	491.151	
			1993 1,768.2	394.01	427.364	472.415	474.385	
		Stocks on hand, end of month.....	1994 (NA)	(S)	(S)	(S)	(S)	
			1993 (NA)	(S)	(S)	181.9	(S)	
28731 50	Ammonium nitrate (100% NH ₄ NO ₃):	Original solution (1):	Production.....	1994 8,516.6	2180.83	2142.838	1973.694	2219.224
				1993 8,280.9	2151.776	2060.579	1877.869	2190.642
			Stocks on hand, end of month.....	1994 (NA)	221.1	213	196.879	283.226
				1993 (NA)	215.4	148.1	274	317.2
28731 52	Fertilizer use:	Solution produced for sale as such for direct application:	Production.....	1994 260.7	76.681	71.223	62.457	50.301
				1993 226.4	61.813	60.555	52.312	51.768
			Stocks on hand, end of month.....	1994 (NA)	(S)	(S)	(S)	(S)
				1993 (NA)	(D)	(D)	(S)	(S)
28731 54	Solution produced for consumption in the manufacture of nitrogen solutions or other fertilizer materials:	Production.....	1994 3,737.2	966.213	921.323	851.306	998.389	
			1993 3,687.2	936.919	959.552	821.982	968.759	
		Stocks on hand, end of month.....	1994 (NA)	(S)	(S)	(S)	(S)	
			1993 (NA)	31.3	38.1	(S)	(S)	
28731 51	Solid:	Production.....	1994 2,244.1	656.201	590.444	466.962	530.537	
			1993 2,225.8	643.395	538.829	482.757	560.801	
		Stocks on hand, end of month.....	1994 (NA)	61.5	54	62.603	74.858	
			1993 (NA)	103.7	(S)	93.8	112	
28731 53	Explosives and other uses (solutions and solids)(2):	Production.....	1994 2,267.7	488.537	555.01	588.422	635.686	
			1993 2,141.4	509.649	501.643	520.818	609.314	
		Stocks on hand, end of month.....	1994 (NA)	(S)	(S)	(S)	(S)	
			1993 (NA)	(S)	(S)	(S)	(S)	
28731 56	Ammonium sulfate (100% (NH ₄) ₂ SO ₄):							
28731 58	Production.....	1994 2,587.8	644.732	654.76	644.022	644.27		
		1993 2,432.4	586.555	622.779	607.73	615.303		
		Stocks on hand, end of month.....	1994 (NA)	148.5	131.5	192.128	218.301	

Continued

Table 7. PRIMARY PRODUCTION OF INORGANIC FERTILIZER CHEMICALS, BY QUARTER: 1994 AND 1993
(Thousands of short tons)

Product code	Product description	Year	Total	1st quarter	2nd quarter	3rd quarter	4th quarter	
28731 11	Nitric acid (100% HNO ₃):	1993	(NA)	98.9	49.6	170.6	176.8	
		Production.....	1994	8,611.1	2237.626	2163.957	1963.96	2245.559
			1993	8,523.9	2112.635	2179.818	1946.829	2284.588
		Stocks on hand, end of month.....	1994	(NA)	(X)	(X)	(X)	(X)
			1993	(NA)	(X)	(X)	(X)	(X)
28731 55	Nitrogen solutions (including mixtures containing urea) (100% N):	Production.....	1994	3,493.1	979.259	967.664	704.635	841.523
			1993	3,584.3	848.75	864.04	851.551	1019.986
		Stocks on hand, end of month.....	1994	(NA)	416.5	271.5	296.871	340.508
			1993	(NA)	380.1	160.9	387.1	335.7
		28731 65	Solutions containing ammonia (3):	Production.....	1994	131.4	33.007	40.245
	1993			127.4	10.571	11.885	53.92	51.024
Stocks on hand, end of month.....	1994			(NA)	12.5	7.9	11.125	86.298
	1993			(NA)	18.8	13.2	8.2	10.1
28731 66	Solutions containing ammonium nitrate/urea:			Production.....	1994	3,361.7	947.114	926.556
			1993	3,456.9	838.179	852.155	797.631	968.962
		Stocks on hand, end of month.....	1994	(NA)	404	263.6	285.8	254.21
			1993	(NA)	361.3	147.7	378.9	325.6
		28731 73	Solutions containing ammonium nitrate/calcium nitrate:	Production.....	1994	(3)	(3)	(3)
	1993			(3)	(3)	(3)	(3)	(3)
Stocks on hand, end of month.....	1994			(NA)	(X)	(X)	(X)	(X)
	1993			(NA)	(X)	(X)	(X)	(X)
28731 67	All other two-component products:			Production.....	1994	(3)	(3)	(3)
			1993	(3)	(3)	(3)	(3)	(3)
		Stocks on hand, end of month.....	1994	(NA)	(3)	(3)	(3)	(3)
			1993	(NA)	(3)	(3)	(3)	(3)
		28741 --	Phosphoric acid (100% P ₂ O ₅):	Production.....	1994	12,819.5	3,081.8	3,269.6
	1993			11,515.1	2,872.0	3,014.1	2,688.1	2,940.9
Stocks on hand, end of month.....	1994			(NA)	255.1	281.3	259.2	277.8
	1993			(NA)	303.2	284.7	274.6	248.4
28741 81	Thermal:			Production.....	1994	324.2	79.881	81.672
			1993	322.1	85.597	86.444	83.323	66.741
		Stocks on hand, end of month.....	1994	(NA)	10.8	8.6	12.38	10.281
			1993	(NA)	13	11.6	13	13.6
		28741 85	Wet:	Production.....	1994	12,468.0	3001.823	3187.972
	1993			11,193.0	2786.4	2927.7	2604.759	2874.156
Stocks on hand, end of month.....	1994			(NA)	244.2	272.7	245.9	267.489
	1993			(NA)	290.2	273.1	261.6	234.8
By use:								

Continued

Table 7. PRIMARY PRODUCTION OF INORGANIC FERTILIZER CHEMICALS, BY QUARTER: 1994 AND 1993
(Thousands of short tons)

Product code	Product description	Year	Total	1st quarter	2nd quarter	3rd quarter	4th quarter
28741 86	Fertilizer: Production.....	1994	11,588.8	2779.88	2952.021	2889.299	2967.56
		1993	10,324.6	2562.812	2722.462	2407.337	2632.02
	Stocks on hand, end of month.....	1994	(NA)	(D)	(D)	(D)	(D)
		1993	(NA)	(D)	(D)	(D)	(D)
28741 87	Feed and other: Production.....	1994	879.2	223.855	238.02	211.387	205.961
		1993	868.3	224.947	201.133	196.56	245.688
	Stocks on hand, end of month.....	1994	(NA)	(D)	(D)	(D)	(D)
		1993	(NA)	(D)	(D)	(D)	(D)
By grade:							
28741 88	Ortho (less than 65% P2O5): Production.....	1994	11,252.1	2695.743	2873.567	2822.438	2860.371
		1993	10,068.0	2515.423	2653.5	2336.897	2562.205
	Stocks on hand, end of month.....	1994	(NA)	210.6	243.3	213.907	240.038
		1993	(NA)	236.9	232	227.9	201.4
28741 89	Super (more than 65% P2O5): Production.....	1994	1,215.9	305.328	314.208	281.353	314.976
		1993	1,125.0	271.139	274.599	267.744	311.504
	Stocks on hand, end of month.....	1994	(NA)	33.6	29.4	31.993	27.451
		1993	(NA)	53.4	41.1	33.7	33.4
28732 --	Urea (100% urea): Production.....	1994	7,979.2	2,111.2	1,907.1	1,896.5	2,064.4
		1993	8,329.6	2,143.6	2,057.0	1,905.8	2,223.2
	Stocks on hand, end of month.....	1994	(NA)	491.2	336.8	372.1	418.5
		1993	(NA)	342.2	329.7	532.9	542.0
For fertilizer use:							
28732 16	Solutions produced as intermediate in nitrogen solutions: Production.....	1994	2,864.1	778.936	735.787	599.203	750.204
		1993	3,123.8	822.361	759.687	674.271	867.446
	Stocks on hand, end of month.....	1994	(NA)	(D)	(D)	(D)	(D)
		1993	(NA)	(D)	(D)	(D)	(D)
28732 18	Solid: Production.....	1994	4,243.0	1118.047	964.769	1055.663	1104.565
		1993	4,236.8	1044.015	1071.022	990.808	1130.971
	Stocks on hand, end of month.....	1994	(NA)	338	272.3	270.998	310.923
		1993	(NA)	243.4	262.9	396.3	443
Other uses:							
28732 21	Feed (solid and solution): Production.....	1994	241.9	78.311	54.424	56.259	52.945
		1993	300.8	76.584	55.345	76.7	92.22
	Stocks on hand, end of month.....	1994	(NA)	7.7	4.3	5.611	6.439
		1993	(NA)	5.4	3.6	12.9	6.6
28732 22	All other (solid and solution): Production.....	1994	602.9	137.23	156.498	152.154	157.063
		1993	668.2	200.596	170.988	164.038	132.584
	Stocks on hand, end of month.....	1994	(NA)	(S)	(S)	(S)	(S)
		1993	(NA)	(D)	(D)	(D)	(D)

Continued

Table 7. PRIMARY PRODUCTION OF INORGANIC FERTILIZER CHEMICALS, BY QUARTER: 1994 AND 1993
(Thousands of short tons)

Note: The 1992 and 1991 stocks on hand, end of quarter, were originally published in the Current Industrial Report Series, MQ28B, "Fertilizer Materials." Detail may not add to total due to independent rounding.

(D) Data withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.
(S) Suppressed. Data did not meet publication standards of the Bureau of the Census.

(1) Represents total amount of original solution produced, including amounts used for fertilizer, explosive, and other uses and amounts consumed in manufacturing other products, such as nitrogen solutions (product code 28731 55).

(2) Excludes data for government-owned, privately operated plants.

(3) "Ammonium nitrate/calcium nitrate solutions" (product code 29731 73) and "All other two-component products" (product code 28731 67) are combined with "Solutions containing ammonia" (product code 28731 65) to avoid disclosing figures for individual companies.

Table 8. PRODUCTION, SHIPMENTS, AND STOCKS OF SUPERPHOSPHATES AND OTHER PHOSPHATIC FERTILIZER MATERIALS BY QUARTER: 1994 AND 1993
(Thousands of short tons)

Product code	Product description	Year	Total	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
28742 --	Superphosphates and other phosphatic fertilizer materials:						
	Production (100% P2O5).....	1994	10023.878	2354.771	2559.817	2528.149	2581.141
		1993	8800.859	2185.472	2410.902	2001.733	2202.752
	Shipments, including interplant transfers (100% P2O5).....	1994	9972.581	2540.143	2425.304	2587.476	2419.658
		1993	8813.809	2107.373	2602.488	1997.328	2106.62
	Stocks on hand, end of quarter (gross weight).....	1994	(NA)	499.703	641.293	602.842	704.397
		1993	(NA)	928.7	462.2	503.2	721.4
28742 15	Normal and enriched superphosphates: AND						
28742 41	Concentrated superphosphates (triple) (over 40% P2O5):						
	Production (100% P2O5).....	1994	853.3	211.213	218.705	210.608	212.812
		1993	765.4	236.864	203.963	139.543	185.059
	Shipments, including interplant transfers (100% P2O5).....	1994	811.9	220.186	186.264	197.677	207.723
		1993	753.5	229.079	195.763	140.045	188.597
	Stocks on hand, end of quarter (gross weight).....	1994	(NA)	41.192	84.226	105.908	99.82
		1993	(NA)	132.2	(D)	(D)	85.2
	Ammonium phosphates:						
28742 51	Monoammonium phosphates:						
	Production (100% P2O5).....	1994	1,754.1	449.018	434.915	448.325	421.853
		1993	1,543.4	404.119	375.308	396.43	367.494
	Shipments, including interplant transfers (100% P2O5).....	1994	1,788.6	485.142	434.596	478.082	390.785
		1993	1,544.5	372.185	451.847	379.352	341.148
	Stocks on hand, end of quarter (gross weight).....	1994	(NA)	168.005	146.198	117.767	116.124
		1993	(NA)	207.9	88	180.4	179.6
28742 52	Diammonium phosphates:						
	Production (100% P2O5).....	1994	7,049.8	1598.269	1801.253	1808.228	1842.007
		1993	6,130.0	1442.495	1711.015	1400.273	1576.217
	Shipments, including interplant transfers (100% P2O5).....	1994	7,017.0	1738.234	1669.485	1863.322	1745.956
		1993	6,179.7	1422.27	1812.388	1432.521	1512.523
	Stocks on hand, end of quarter (gross weight).....	1994	(NA)	216.433	373.171	301.539	405.855
		1993	(NA)	490	331.1	252	358
28742 55	Other ammonium phosphates and other phosphatic fertilizer materials (1):						
28742 61	Production (100% P2O5).....	1994	366.7	96.271	104.944	60.988	104.469

Continued

Table 8. PRODUCTION, SHIPMENTS, AND STOCKS OF SUPERPHOSPHATES AND OTHER PHOSPHATIC FERTILIZER MATERIALS BY QUARTER: 1994 AND 1993
(Thousands of short tons)

Product code	Product description	Year	Total	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
		1993	362.1	101.994	120.616	65.487	73.982
	Shipments, including interplant transfers (100% P2O5).....	1994	355.1	96.581	134.959	48.395	75.194
		1993	336.1	83.839	142.49	45.41	64.352
	Stocks on hand, end of quarter (gross weight).....	1994	(NA)	74.073	37.698	77.628	82.598
		1993	(NA)	98.6	43.1	70.8	98.6

Note: The 1992 and 1991 stocks on hand, end of quarter, were originally published in the Current Industrial Report Series, MQ28B, "Fertilizer Materials." Detail may not add to total due to independent rounding.

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

(1) "Other ammonium phosphates" (28742 55) is combined with "Other phosphatic fertilizer materials" (28742 61) to avoid disclosure of figures for individual companies.

Table 9. PRODUCTION AND STOCKS OF SULFURIC ACID, BY PROCESS, BY QUARTER: 1994 AND 1993
(Thousands of short tons of 100% H₂SO₄)

Quarter and year	Production						
	Sulfuric acid, gross, new and fortified		Other than oleum grades	New acid (1)	Sulfuric acid produced through decomposition	Spent acid used in fortification (2)	Stocks (gross) at producing plants at end of period
	Total	Oleum grades					
1994							
Total.....	44,813.0	1,594.9	43,218.1	42,262.2	(D)	(D)	(NA)
First Quarter.....	11,608.3	410.023	11198.239	11024.762	(D)	(D)	623.042
Second Quarter.....	11,332.2	428.874	10903.321	10712.195	(D)	(D)	594.436
Third Quarter.....	11,225.6	443.507	10782.127	10541.134	(D)	(D)	518.72
Fourth Quarter.....	10,646.9	312.468	10334.401	9984.069	(D)	(D)	696.191
1993							
Total.....	39,838.5	1,559.6	38,278.9	37,081.7	(D)	(D)	(NA)
First Quarter.....	9,585.6	422.023	9163.594	8954.917	(D)	(D)	720.7
Second Quarter.....	10,254.6	351.068	9903.577	9584.445	(D)	(D)	687.6
Third Quarter.....	9,558.5	357.323	9201.164	8818.887	(D)	(D)	737
Fourth Quarter.....	10,439.7	429.147	10010.599	9723.446	(D)	(D)	728.8

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

(D) Data withheld to avoid disclosing figures for individual companies.

(1) Represents gross production of sulfuric acid less acid produced through decomposition and spent acid used in fortification.

(2) Spent acid fortified by the addition of sulfur trioxide.

Table 10. PRODUCTION, EXPORTS, IMPORTS, AND APPARENT CONSUMPTION OF FERTILIZER MATERIALS: 1994 AND 1993
(Quantity in thousands of metric tons)

Product code	Product description	Production (quantity)	Exports of domestic merchandise (quantity)(1)	Percent exports to production (quantity)	Imports for consumption (quantity)(2)	Apparent consumption (quantity)(3)	Percent imports to apparent consumption (quantity)
1994							
28731 30							
28731 32	Ammonia, synthetic anhydrous.....	15645	(D)	(D)	(D)	(D)	(D)
28731 50	Ammonium nitrate, original solution.....	7721.3	55	0.7	507.4	8,173.7	6.2
28731 66	Nitrogen solutions, ammonium nitrate/urea solutions.....	3166.9	119.1	3.8	311.8	3,359.6	9.3
28731 56							
28731 58	Ammonium sulfate.....	2346.1	762.4	32.5	455.6	2,039.3	22.3
28732 --	Urea.....	7209.5	913.5	12.7	3,160.4	9,456.4	33.4
28741 81							
28741 85	Phosphoric acid.....	11597.6	(D)	(D)	15.7	(D)	(D)
28742 15	Normal and enriched superphosphate AND						
28742 41	Concentrated superphosphate.....	1711.4	809	47.3	-	902.4	-
28742 52	Diammonium phosphates.....	12301	9194.5	74.7	15.3	3,121.8	0.5
28193 --	Sulfuric acid, gross.....	40628.3	140.2	0.3	2,134.5	42,622.6	5.0
1993							
28731 30							
28731 32	Ammonia, synthetic anhydrous.....	15589.5	(D)	(D)	(D)	(D)	(D)
28731 50	Ammonium nitrate, original solution.....	7507.6	66	0.9	485.3	7,926.9	6.1
28731 66	Nitrogen solutions, ammonium nitrate/urea solutions.....	3249.6	28	0.9	391.0	3,612.6	10.8
28731 56							
28731 58	Ammonium sulfate.....	2205.2	758	34.4	367.0	1,814.2	20.2
28732 --	Urea.....	7551.8	659.1	8.7	2,964.1	9,856.8	30.1
28741 81							
28741 85	Phosphoric acid.....	10439.8	(D)	(D)	16.5	(D)	(D)
28742 15	Normal and enriched superphosphate AND						
28742 41	Concentrated superphosphate (4).....	1389	780.3	56.2	-	608.7	-
28742 52	Diammonium phosphates (4).....	10894.2	7238.7	66.4	38.4	3,693.9	1.0
28193 --	Sulfuric acid, gross.....	36118.3	144.9	0.4	2,430.1	38,403.5	6.3

Note: For comparison of SIC product code numbers, HTUSA import numbers, and Schedule B export numbers, see table 11.

- Represents zero. (D) Data withheld to avoid disclosing figures for individual companies.

(1) Source: Bureau of the Census report EM 545, U.S. Exports (see table 11).

(2) Source: Bureau of the Census 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.

(4) The "Superphosphates and other phosphatic fertilizer materials" production figures are collected and published on a 100% P₂O₅ basis, while the import and export figures are collected and published on a gross weight basis. Due to the difference in the basis, production, import, and export data are not comparable.

Table 11. COMPARISON OF STANDARD INDUSTRIAL CLASSIFICATION-BASED PRODUCT CODES WITH SCHEDULE B EXPORT NUMBERS, AND HTSUSA IMPORT NUMBERS: 1994

Product code	Product description	Export number (1)	Import number (2)
28731 11	Nitric acid.....	(NA)	2808.00.0010
28731 30		2814.10.0000	2814.10.0000
28731 32	Anhydrous ammonia, synthetic.....	2814.20.0000	2814.20.0000
28731 50	Ammonium nitrate, original solution.....	3102.30.0000	3102.30.0000
28731 56			
28731 58	Ammonium sulfate.....	3102.21.0000	3102.21.0000
28731 66	Nitrogen solutions, ammonium nitrate/ urea solutions.....	3102.80.0000	3102.80.0000
28732 00	Urea.....	3102.10.0000	3102.10.0000
28742 15	Normal and enriched superphosphates.....	3103.10.0010	3103.10.0010
28742 41	Concentrated superphosphates.....	3103.10.0020	3103.10.0020
28742 51	Monoammonium phosphates.....	(NA)	3105.40.0010
28742 52	Diammonium phosphates.....	3105.30.0000	3105.30.0000
28741 81		2809.20.0010	2809.20.0010
28741 85	Phosphoric acid.....	2809.20.0020 2809.20.0030	2809.20.0020 2809.20.0030
28193 --	Sulfuric acid, gross.....	2807.00.0000	2807.00.0000

(NA) Not available.

(1) Source: 1994 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 (1994).