NITROGEN (FIXED)—AMMONIA

(Data in thousand metric tons of nitrogen, unless otherwise noted)

<u>Domestic Production and Use</u>: U.S. ammonia producers operated at near 100% of capacity under prevailing conditions of supply-demand balance, firm prices for nitrogen compounds in all forms, and favorable profit margins. Sixty percent of total U.S. ammonia production capacity was concentrated in Louisiana, 40%; Oklahoma, 14%; and Texas, 6%; owing to large indigenous reserves of natural gas feedstock. Ammonia plants in the Midwest accounted for another 16% of capacity, with the remainder equally divided between the Southern, Southeastern, and Western States. Downstream nitrogen compound operating rates ranged from 90% to more than 100%. Urea producers operated at 91% of design capacity, compared with 93% in 1995.

Approximately 80% of U.S. apparent domestic ammonia consumption was for fertilizer use, including anhydrous ammonia for direct application, urea, ammonium nitrate, ammonium phosphates, and other nitrogen compounds. Ammonia was also used to produce plastics, synthetic fibers, and resins, 10%; explosives, 4%; and numerous other chemicals, 6%.

Salient Statistics—United States:1	<u>1992</u>	<u> 1993</u>	<u> 1994</u>	<u> 1995</u>	<u> 1996°</u>
Production ²	13,400	12,600	13,400	13,300	13,800
Imports for consumption	2,690	2,660	3,450	3,630	3,500
Exports	354	378	215	319	500
Consumption, apparent	15,600	15,100	16,500	15,600	16,900
Stocks, producer, yearend	1,060	852	956	963	900
Price, dollars per ton, average annual,					
f.o.b. gulf coast ³	106	121	211	191	215
Employment, plant, number	2,500	2,500	2,500	2,500	2,500
Net import reliance⁴ as a percent					
of apparent consumption	14	17	19	15	18

Recycling: None.

Import Sources (1992-95): Trinidad and Tobago, 35%; Canada, 32%; former Soviet Union, 20%; Mexico, 8%; and other, 5%.

Tariff: Item Number		Most favored nation (MFN)	Non-MFN ⁵
		<u>12/31/96</u>	<u>12/31/96</u>
Ammonia, anhydrous	2814.10.0000	Free	Free.
Ammonia, aqueous	2814.20.0000	Free	Free.

Depletion Allowance: Not applicable.

Government Stockpile: None.

NITROGEN (FIXED)—AMMONIA

Events, Trends, and Issues: The U.S. fertilizer industry experienced one of its best years in history, bolstered by global supply-demand balance and solid export demand for domestic fertilizers and grain. Prices for most nitrogen commodities were at 20-year highs, operating costs were down, and profit margins up. Ammonium phosphate exports to China, India, and other ports of call continued at a high level. The favorable situation and projected outlook produced a new round of capacity expansion by the nitrogen fertilizer industry, including the construction of new capacity in the United States, Canada, and Trinidad and Tobago. Canadian producers also planned to reactivate several idle ammonia plants and to expand existing capacity.

U.S. ammonia import tonnage continued at record high levels, led by Trinidad and Tobago, the former Soviet Union, Canada, and Mexico, in order of importance.

Although domestic feedgrain acreage fell 10%, and foodgrains, 3%, from 1995 levels, overall crop acreage declined only 2% owing to a rebound in oilseeds and cotton. A wet spring hampered fertilizer application and lowered yields. The outlook for 1997 was optimistic, in light of prospects for improved domestic fertilizer demand and a continuation of firm market conditions for fertilizers and grains at the global level.

World Ammonia Production, Reserves, and Reserve Base:

-	Plant production		Reserves and reserve base ⁶
	<u>1995</u>	<u>1996°</u>	
United States	13,300	13,800	Available atmospheric nitrogen
Canada	3,500	3,600	and sources of natural gas for
China	19,500	20,200	production of ammonia are
Germany	2,100	2,200	considered adequate for all
India	7,710	7,900	listed countries.
Indonesia	2,850	3,000	
Japan	1,400	1,400	
Mexico	2,100	2,050	
Netherlands	2,500	2,550	
Russia	7,500	7,900	
Trinidad and Tobago	1,700	1,700	
Ukraine	2,200	2,200	
Other countries	<u>25,240</u>	<u>25,300</u>	
World total (may be rounded)	91,600	93,500	

<u>World Resources</u>: The availability of nitrogen from the atmosphere for fixed nitrogen production is unlimited. Mineralized occurrences of sodium and potassium nitrates, found in the Atacama Desert of Chile, contribute minimally to global nitrogen demand.

<u>Substitutes</u>: Nitrogen is an essential plant nutrient that has no substitute. Also, there are no known practical substitutes for nitrogen explosives and blasting agents.

eEstimated.

¹U.S. Department of Commerce (DOC) data unless otherwise noted.

²Annual and preliminary data as reported in Bulletins MA28B and MQ28B (DOC).

³Source: Green Markets Fertilizer Intelligence Weekly, a Pike and Fischer publication.

⁴Defined as imports - exports + adjustments for Government and industry stock changes.

⁵See Appendix B.

⁶See Appendix C for definitions.