

SULFUR STATISTICS¹
U.S. GEOLOGICAL SURVEY

[All values are in metric tons (t) sulfur content unless otherwise noted]

Last modification: December 5, 2012

| Year | Production | Imports | Exports | Shipments | Stocks | Apparent consumption | Unit value (\$/t) | Unit value (98\$/t) | World production |
|------|------------|---------|-----------|-----------|-----------|----------------------|-------------------|---------------------|------------------|
| 1900 | 86,100 | 328,000 | NA | NA | NA | 652,000 | 9.73 | 191 | 1,420,000 |
| 1901 | 242,000 | 375,000 | NA | NA | NA | 767,000 | 5.12 | 100 | 1,420,000 |
| 1902 | 208,000 | 389,000 | NA | NA | NA | 770,000 | 4.48 | 84.50 | 4,390,000 |
| 1903 | 233,000 | 400,000 | NA | NA | NA | 791,000 | 4.69 | 85.30 | 4,540,000 |
| 1904 | 334,000 | 338,000 | NA | 61,000 | NA | 549,000 | 10.20 | 186 | 1,320,000 |
| 1905 | 326,000 | 336,000 | NA | 165,000 | NA | 620,000 | 14.30 | 259 | 1,420,000 |
| 1906 | 405,000 | 368,000 | 22,600 | 188,000 | NA | 768,000 | 14.90 | 270 | 1,320,000 |
| 1907 | 292,000 | 330,000 | 36,500 | 276,000 | NA | 721,000 | 20.40 | 357 | 1,320,000 |
| 1908 | 465,000 | 348,000 | 28,300 | 210,000 | NA | 804,000 | 16.20 | 294 | 1,220,000 |
| 1909 | 378,000 | 368,000 | 37,700 | 262,000 | NA | 702,000 | 18.20 | 331 | 1,320,000 |
| 1910 | 348,000 | 424,000 | 31,200 | 255,000 | NA | 767,000 | 17.70 | 311 | 1,420,000 |
| 1911 | 431,000 | 521,000 | 28,600 | 258,000 | NA | 254,000 | 17.70 | 311 | 1,420,000 |
| 1912 | 1,080,000 | 505,000 | 58,700 | 310,000 | NA | 279,000 | 17.10 | 289 | 1,630,000 |
| 1913 | 782,000 | 439,000 | 92,000 | 324,000 | NA | 249,000 | 17.30 | 285 | 1,830,000 |
| 1914 | 735,000 | 529,000 | 102,000 | 347,000 | NA | 272,000 | 17.90 | 292 | 1,070,000 |
| 1915 | 896,000 | 499,000 | 49,500 | 299,000 | NA | 286,000 | 16.60 | 268 | 1,290,000 |
| 1916 | 1,100,000 | 631,000 | 141,000 | 779,000 | NA | 670,000 | 15.70 | 235 | 1,440,000 |
| 1917 | 1,680,000 | 477,000 | 165,000 | 1,140,000 | NA | 984,000 | 21.10 | 268 | 1,980,000 |
| 1918 | 1,880,000 | 246,000 | 145,000 | 1,290,000 | NA | 1,150,000 | 21.70 | 234 | 2,140,000 |
| 1919 | 1,570,000 | 192,000 | 231,000 | 689,000 | NA | 461,000 | 14.90 | 140 | 1,800,000 |
| 1920 | 1,680,000 | 164,000 | 489,000 | 1,540,000 | 1,120,000 | 1,060,000 | 19.50 | 159 | 1,590,000 |
| 1921 | 1,970,000 | 106,000 | 290,000 | 970,000 | NA | 679,000 | 17.50 | 160 | 2,230,000 |
| 1922 | 1,930,000 | 137,000 | 496,000 | 1,370,000 | NA | 872,000 | 16.10 | 156 | 2,090,000 |
| 1923 | 2,150,000 | 129,000 | 482,000 | 1,640,000 | 3,050,000 | 1,170,000 | 15.80 | 151 | 2,380,000 |
| 1924 | 1,310,000 | 122,000 | 492,000 | 1,560,000 | 2,740,000 | 1,070,000 | 16.00 | 153 | 3,860,000 |
| 1925 | 1,500,000 | 135,000 | 642,000 | 1,960,000 | 2,290,000 | 1,250,000 | 14.80 | 138 | 4,780,000 |
| 1926 | 1,990,000 | 179,000 | 592,000 | 2,400,000 | NA | 1,510,000 | 17.20 | 158 | 5,490,000 |
| 1927 | 2,470,000 | 126,000 | 816,000 | 2,410,000 | NA | 1,290,000 | 17.50 | 164 | 5,890,000 |
| 1928 | 2,400,000 | 229,000 | 716,000 | 2,460,000 | 2,030,000 | 1,400,000 | 16.80 | 160 | 5,690,000 |
| 1929 | 2,810,000 | 253,000 | 887,000 | 2,800,000 | 1,930,000 | 1,590,000 | 16.90 | 161 | 6,200,000 |
| 1930 | 3,000,000 | 180,000 | 619,000 | 2,350,000 | 3,300,000 | 1,400,000 | 16.70 | 163 | 6,400,000 |
| 1931 | 2,490,000 | 172,000 | 426,000 | 1,730,000 | 3,080,000 | 972,000 | 16.30 | 175 | 5,180,000 |
| 1932 | 1,110,000 | 124,000 | 366,000 | 1,350,000 | 3,560,000 | 761,000 | 16.80 | 199 | 3,760,000 |
| 1933 | 1,690,000 | 188,000 | 540,000 | 1,930,000 | 3,350,000 | 1,130,000 | 16.60 | 209 | 4,570,000 |
| 1934 | 1,750,000 | 185,000 | 526,000 | 1,960,000 | 3,150,000 | 1,120,000 | 16.00 | 194 | 5,080,000 |
| 1935 | 2,000,000 | 196,000 | 420,000 | 2,010,000 | 3,150,000 | 1,240,000 | 15.70 | 187 | 5,690,000 |
| 1936 | 2,440,000 | 211,000 | 576,000 | 2,370,000 | 3,150,000 | 1,430,000 | 15.90 | 187 | 5,390,000 |
| 1937 | 3,210,000 | 257,000 | 700,000 | 2,910,000 | 3,450,000 | 1,810,000 | 16.20 | 183 | 5,990,000 |
| 1938 | 2,820,000 | 166,000 | 601,000 | 2,040,000 | 4,270,000 | 1,060,000 | 14.50 | 168 | 5,590,000 |
| 1939 | 2,550,000 | 250,000 | 663,000 | 2,660,000 | 4,060,000 | 1,620,000 | 14.20 | 167 | 7,320,000 |
| 1940 | 3,260,000 | 227,000 | 779,000 | 3,030,000 | 4,270,000 | 1,850,000 | 14.30 | 166 | 7,930,000 |
| 1941 | 3,710,000 | 209,000 | 773,000 | 3,920,000 | 3,960,000 | 2,380,000 | 14.60 | 161 | 7,520,000 |
| 1942 | 4,080,000 | 173,000 | 595,000 | 3,690,000 | 4,370,000 | 2,510,000 | 14.30 | 143 | 8,030,000 |
| 1943 | 3,230,000 | 142,000 | 693,000 | 3,560,000 | 3,860,000 | 2,570,000 | 14.10 | 133 | 6,710,000 |
| 1944 | 3,940,000 | 88,400 | 686,000 | 4,210,000 | 3,560,000 | 2,950,000 | 15.00 | 139 | 6,600,000 |
| 1945 | 4,440,000 | 91,200 | 958,000 | 4,460,000 | 3,560,000 | 2,950,000 | 15.60 | 141 | 6,200,000 |
| 1946 | 4,570,000 | 89,200 | 1,270,000 | 4,800,000 | 3,250,000 | 3,590,000 | 15.20 | 127 | 7,320,000 |
| 1947 | 5,190,000 | 61,700 | 1,370,000 | 5,580,000 | 3,430,000 | 4,290,000 | 16.00 | 117 | 8,640,000 |
| 1948 | 5,600,000 | 52,400 | 1,320,000 | 5,720,000 | 3,280,000 | 4,500,000 | 16.30 | 110 | 9,450,000 |
| 1949 | 5,480,000 | 59,000 | 1,480,000 | 5,500,000 | 3,150,000 | 4,160,000 | 16.30 | 112 | 9,960,000 |
| 1950 | 6,080,000 | 102,000 | 1,500,000 | 6,340,000 | 2,700,000 | 5,070,000 | 17.80 | 120 | 10,800,000 |

SULFUR STATISTICS¹
U.S. GEOLOGICAL SURVEY

[All values are in metric tons (t) sulfur content unless otherwise noted]

Last modification: December 5, 2012

| Year | Production | Imports | Exports | Shipments | Stocks | Apparent consumption | Unit value (\$/t) | Unit value (98\$/t) | World production |
|------|------------|-----------|-----------|------------|-----------|----------------------|-------------------|---------------------|------------------|
| 1951 | 6,300,000 | 110,000 | 1,330,000 | 6,010,000 | 2,880,000 | 4,900,000 | 19.60 | 123 | 11,400,000 |
| 1952 | 6,390,000 | 149,000 | 1,360,000 | 6,200,000 | 3,210,000 | 4,910,000 | 19.70 | 121 | 12,100,000 |
| 1953 | 6,350,000 | 93,800 | 1,290,000 | 6,390,000 | 3,180,000 | 5,130,000 | 24.30 | 148 | 11,700,000 |
| 1954 | 6,780,000 | 137,000 | 1,700,000 | 6,580,000 | 3,390,000 | 4,990,000 | 24.20 | 147 | 12,800,000 |
| 1955 | 7,140,000 | 209,000 | 1,660,000 | 7,220,000 | 3,350,000 | 5,720,000 | 25.50 | 155 | 15,500,000 |
| 1956 | 7,940,000 | 394,000 | 1,700,000 | 7,150,000 | 4,120,000 | 5,840,000 | 24.10 | 145 | 17,000,000 |
| 1957 | 7,120,000 | 680,000 | 1,620,000 | 6,610,000 | 4,650,000 | 5,640,000 | 21.90 | 127 | 17,000,000 |
| 1958 | 6,240,000 | 767,000 | 1,630,000 | 6,190,000 | 4,690,000 | 5,350,000 | 23.40 | 132 | 16,100,000 |
| 1959 | 6,270,000 | 789,000 | 1,660,000 | 6,970,000 | 4,010,000 | 6,010,000 | 23.10 | 129 | 17,200,000 |
| 1960 | 6,770,000 | 902,000 | 1,820,000 | 6,840,000 | 3,840,000 | 5,960,000 | 22.80 | 125 | 19,600,000 |
| 1961 | 7,290,000 | 982,000 | 1,620,000 | 6,950,000 | 4,890,000 | 5,990,000 | 22.80 | 124 | 20,600,000 |
| 1962 | 6,870,000 | 1,150,000 | 1,560,000 | 6,810,000 | 5,010,000 | 6,340,000 | 21.50 | 116 | 21,300,000 |
| 1963 | 6,750,000 | 1,490,000 | 1,640,000 | 6,830,000 | 4,760,000 | 6,710,000 | 19.60 | 104 | 21,900,000 |
| 1964 | 7,210,000 | 1,610,000 | 1,960,000 | 7,990,000 | 4,290,000 | 7,370,000 | 19.80 | 104 | 23,500,000 |
| 1965 | 8,340,000 | 1,670,000 | 2,680,000 | 9,310,000 | 3,480,000 | 8,110,000 | 22.10 | 114 | 25,200,000 |
| 1966 | 9,300,000 | 1,700,000 | 2,410,000 | 9,920,000 | 2,750,000 | 9,290,000 | 25.30 | 127 | 26,500,000 |
| 1967 | 9,280,000 | 1,670,000 | 2,230,000 | 9,960,000 | 1,990,000 | 9,400,000 | 32.10 | 156 | 28,400,000 |
| 1968 | 9,890,000 | 1,740,000 | 1,630,000 | 9,060,000 | 2,700,000 | 9,220,000 | 39.00 | 182 | 29,500,000 |
| 1969 | 9,690,000 | 1,820,000 | 1,580,000 | 9,070,000 | 3,390,000 | 9,320,000 | 26.60 | 118 | 30,700,000 |
| 1970 | 9,710,000 | 1,690,000 | 1,460,000 | 8,100,000 | 3,890,000 | 9,380,000 | 22.80 | 95.70 | 41,900,000 |
| 1971 | 9,730,000 | 1,450,000 | 1,560,000 | 8,450,000 | 4,190,000 | 9,320,000 | 17.20 | 69.20 | 42,700,000 |
| 1972 | 10,400,000 | 1,210,000 | 1,880,000 | 9,690,000 | 3,860,000 | 10,000,000 | 16.80 | 65.40 | 45,500,000 |
| 1973 | 11,100,000 | 1,240,000 | 1,800,000 | 10,000,000 | 3,990,000 | 10,400,000 | 17.60 | 64.50 | 48,200,000 |
| 1974 | 11,600,000 | 2,180,000 | 2,710,000 | 10,600,000 | 4,020,000 | 11,000,000 | 28.40 | 94.00 | 51,200,000 |
| 1975 | 11,400,000 | 1,930,000 | 1,370,000 | 9,120,000 | 5,210,000 | 10,800,000 | 44.90 | 136 | 50,700,000 |
| 1976 | 10,900,000 | 1,760,000 | 1,290,000 | 9,150,000 | 5,650,000 | 10,900,000 | 45.70 | 131 | 50,900,000 |
| 1977 | 10,700,000 | 2,010,000 | 1,200,000 | 9,660,000 | 5,560,000 | 11,700,000 | 44.40 | 119 | 52,300,000 |
| 1978 | 11,200,000 | 2,180,000 | 866,000 | 9,820,000 | 5,350,000 | 12,600,000 | 45.20 | 113 | 52,100,000 |
| 1979 | 12,100,000 | 2,490,000 | 2,040,000 | 11,600,000 | 4,240,000 | 13,700,000 | 55.80 | 125 | 53,200,000 |
| 1980 | 11,900,000 | 2,520,000 | 1,780,000 | 11,500,000 | 3,090,000 | 13,700,000 | 89.10 | 176 | 55,000,000 |
| 1981 | 12,100,000 | 2,640,000 | 1,470,000 | 10,100,000 | 3,630,000 | 12,800,000 | 111 | 200 | 53,600,000 |
| 1982 | 9,790,000 | 2,050,000 | 1,040,000 | 7,940,000 | 4,220,000 | 10,100,000 | 108 | 183 | 50,600,000 |
| 1983 | 9,290,000 | 1,840,000 | 1,050,000 | 9,150,000 | 3,220,000 | 11,000,000 | 87.20 | 143 | 49,800,000 |
| 1984 | 10,700,000 | 2,700,000 | 1,370,000 | 10,200,000 | 2,420,000 | 12,700,000 | 94.30 | 148 | 52,500,000 |
| 1985 | 11,600,000 | 2,250,000 | 1,410,000 | 9,940,000 | 2,800,000 | 12,000,000 | 106 | 161 | 53,800,000 |
| 1986 | 11,100,000 | 1,600,000 | 1,920,000 | 9,910,000 | 2,750,000 | 10,600,000 | 105 | 156 | 53,700,000 |
| 1987 | 10,500,000 | 1,850,000 | 1,270,000 | 9,790,000 | 2,320,000 | 11,300,000 | 89.80 | 129 | 57,000,000 |
| 1988 | 10,700,000 | 2,310,000 | 1,270,000 | 10,800,000 | 1,110,000 | 12,700,000 | 86.00 | 118 | 59,200,000 |
| 1989 | 11,600,000 | 2,670,000 | 1,070,000 | 10,300,000 | 1,300,000 | 12,700,000 | 86.60 | 114 | 58,900,000 |
| 1990 | 11,600,000 | 3,120,000 | 1,020,000 | 10,200,000 | 1,420,000 | 13,100,000 | 80.10 | 100 | 57,800,000 |
| 1991 | 10,800,000 | 3,620,000 | 1,250,000 | 11,100,000 | 1,190,000 | 13,500,000 | 71.50 | 85.50 | 54,600,000 |
| 1992 | 10,700,000 | 3,380,000 | 1,010,000 | 11,000,000 | 809,000 | 13,400,000 | 48.10 | 55.90 | 50,700,000 |
| 1993 | 11,000,000 | 2,840,000 | 703,000 | 10,500,000 | 1,380,000 | 12,600,000 | 31.90 | 35.90 | 51,600,000 |
| 1994 | 11,500,000 | 2,350,000 | 945,000 | 11,700,000 | 1,160,000 | 13,100,000 | 30.10 | 33.10 | 53,400,000 |
| 1995 | 11,800,000 | 3,140,000 | 962,000 | 12,100,000 | 583,000 | 14,300,000 | 44.50 | 47.60 | 54,800,000 |
| 1996 | 11,800,000 | 2,640,000 | 893,000 | 11,800,000 | 646,000 | 13,600,000 | 34.10 | 35.40 | 55,200,000 |
| 1997 | 12,000,000 | 2,720,000 | 742,000 | 12,000,000 | 761,000 | 14,000,000 | 36.10 | 36.60 | 56,900,000 |
| 1998 | 11,700,000 | 2,940,000 | 940,000 | 12,200,000 | 283,000 | 14,200,000 | 29.10 | 29.10 | 57,400,000 |
| 1999 | 11,500,000 | 3,030,000 | 736,000 | 11,300,000 | 451,000 | 13,800,000 | 37.80 | 37.00 | 57,400,000 |
| 2000 | 10,500,000 | 2,790,000 | 849,000 | 10,700,000 | 208,000 | 12,700,000 | 24.70 | 23.40 | 59,300,000 |
| 2001 | 9,470,000 | 2,190,000 | 780,000 | 9,450,000 | 232,000 | 10,900,000 | 10.00 | 9.20 | 59,500,000 |

SULFUR STATISTICS¹
U.S. GEOLOGICAL SURVEY

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Last modification: December 5, 2012

| Year | Production | Imports | Exports | Shipments | Stocks | Apparent consumption | Unit value (\$/t) | Unit value (98\$/t) | World production |
|-------------|-------------------|----------------|----------------|------------------|---------------|-----------------------------|--------------------------|----------------------------|-------------------------|
| 2002 | 9,330,000 | 2,910,000 | 757,000 | 9,320,000 | 181,000 | 11,500,000 | 11.80 | 10.70 | 62,000,000 |
| 2003 | 9,650,000 | 3,160,000 | 907,000 | 9,690,000 | 206,000 | 11,900,000 | 28.70 | 25.40 | 64,100,000 |
| 2004 | 10,100,000 | 3,630,000 | 1,020,000 | 10,100,000 | 185,000 | 12,800,000 | 32.60 | 28.10 | 66,400,000 |
| 2005 | 9,500,000 | 3,700,000 | 794,000 | 9,480,000 | 160,000 | 12,400,000 | 30.80 | 25.70 | 68,500,000 |
| 2006 | 9,060,000 | 3,750,000 | 716,000 | 8,960,000 | 221,000 | 12,000,000 | 32.90 | 26.60 | 67,000,000 |
| 2007 | 9,150,000 | 3,790,000 | 1,030,000 | 9,180,000 | 187,000 | 11,900,000 | 32.90 | 25.90 | 67,800,000 |
| 2008 | 9,300,000 | 4,690,000 | 1,040,000 | 9,280,000 | 208,000 | 12,900,000 | 264 | 200 | 68,300,000 |
| 2009 | 8,940,000 | 2,110,000 | 1,510,000 | 8,860,000 | 231,000 | 9,460,000 | 1.70 | 1.30 | 67,400,000 |
| 2010 | 9,080,000 | 3,640,000 | 1,520,000 | 9,140,000 | 166,000 | 11,300,000 | 70.20 | 52.50 | 69,400,000 |
| 2011 | 8,930,000 | 4,140,000 | 1,420,000 | 8,910,000 | 175,000 | 11,600,000 | 124.00 | 89.90 | 70,500,000 |

NA Not available.

¹Compiled by D.A. Buckingham (retired), J.A. Ober, and L.E. Apodaca.

Data are calculated, estimated, or reported. See notes for more information.

Sulfur Worksheet Notes

Data Sources

The sources of data for the sulfur worksheet are the mineral statistics publications of the U.S. Bureau of Mines and the U.S. Geological Survey—Minerals Yearbook (MYB) and its predecessor, Mineral Resources of the United States (MR). The years of publication and corresponding years of data coverage are listed in the References section below.

Production

Production is in terms of the sulfur content of Frasch, recovered, and native sulfur; pyrites; byproduct sulfuric acid; and other forms. Data for “Other Forms” were not separately reported before 1939, and then only in terms of their sulfur content; pyrites were included in this category in 1983. Sulfur content data of pyrites for 1928–49 are estimated using the published percentage sulfur content. For 1900–24, the sulfur content is estimated using the average percentage of 39.7 percent sulfur content reported for pyrites over 1925–82. Included in total pyrite production for 1922–27 is byproduct pyrite production from Tennessee and Wisconsin. The sulfur content of sulfuric acid for 1911–20 and years 1927–46 was estimated based on the quality (50° or 60° Baumé) of sulfuric acid. No sulfuric acid data are available prior to 1911. Data are from the MR and the MYB.

Imports

Imports report the sulfur content of Frasch and recovered sulfur, pyrites, and sulfuric acid. Frasch sulfur import data for 1920–30 and 1949–69 include some sulfur ores. Pyrite imports for 1900–72 are pyrites only. The sulfur content of imported pyrite for 1900–48 is estimated using the average percentage of 48.1 percent sulfur content reported for pyrites for 1949 to the most recent year. Sulfur content of imported sulfuric acid for 1913–20 is estimated based on 100 percent sulfuric acid. No sulfuric acid data are available prior to 1913. Data are from the MR and the MYB.

Exports

Exports report the sulfur content of Frasch sulfur, recovered sulfur, and sulfuric acid. Pyrite export data are not available. Data are not available for Frasch and recovered sulfur exports prior to 1906. For 1906–20, data include some crude sulfur exports. The sulfur content of exported sulfuric acid for 1913–20 is calculated base on 100 percent sulfuric acid. Data are from the MR and the MYB.

Shipments

Shipments are in terms of the sulfur content of mine shipments of Frasch, recovered, and native sulfur; pyrites; byproduct sulfuric acid; and other sulfur forms. Data are from the MR and the MYB.

Stocks

Stocks are in terms of the sulfur content of mine stocks as of the end of year, December 31. Data are from the MR and the MYB.

Apparent Consumption

Sulfur apparent consumption data are in terms of the sulfur content. Data are from the MR and the MYB. Consumption data for 1900–03 include Frasch sulfur, native sulfur, and pyrites. Data for 1904–45 include only Frasch and native sulfur consumption. For 1946 to the most recent year, consumption data include Frasch, recovered, and native sulfur; pyrites; sulfuric acid; and other forms of sulfur.

Unit Value (\$/t)

Unit value is defined as the value of 1 metric ton (t) of sulfur apparent consumption. Data for 1900–08 are estimated by using the sulfur production unit value. For 1909 to the most recent year, data are estimated using the sulfur shipments unit value.

Unit Value (98\$/t)

The Consumer Price Index conversion factor, with 1998 as the base year, is used to adjust unit value in current U.S. dollars to the unit value in constant 1998 U.S. dollars.

World Production

World sulfur production data include all forms of sulfur and are in terms of their sulfur content. Data prior to 1936 include elemental sulfur production from principal producing countries and world pyrite production. Data for 1936 to the most recent year are world production of all forms of sulfur. Data are from the MR and the MYB.

References

- U.S. Bureau of Mines, 1927–34, Mineral Resources of the United States, 1924–31.
- U.S. Bureau of Mines, 1933–96, Minerals Yearbook, 1932–94.
- U.S. Geological Survey, 1901–27, Mineral Resources of the United States, 1900–23.
- U.S. Geological Survey, 1995–present, Minerals Yearbook, v. I. (Available via <http://minerals.usgs.gov/minerals>.)

Recommended Citation Format:

U.S. Geological Survey, [year of last update, e.g., 2005], [Mineral commodity, e.g., Gold] statistics, *in* Kelly, T.D., and Matos, G.R., comps., Historical statistics for mineral and material commodities in the United States: U.S. Geological Survey Data Series 140, accessed [date], at <http://pubs.usgs.gov/ds/2005/140/>.

For more information, please contact:

[USGS Sulfur Commodity Specialist](#)