## VERMICULITE STATISTICS ${ }^{1}$

U.S. GEOLOGICAL SURVEY
[All values in metric tons ( $\mathbf{t}$ ) vermiculite unless otherwise noted]
Last modification: December 4, 2007

| Year | $\begin{array}{\|c\|} \hline \text { Primary } \\ \text { production } \end{array}$ | Imports | Exports | $\begin{array}{c\|} \text { Apparent } \\ \text { consumption } \end{array}$ | Unit value (\$/t) | Unit value (98\$/t) | World production |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1924 | 2 |  |  | 2 | 37.50 | 357 |  |
| 1925 | 93 |  |  | 93 | 30.50 | 285 |  |
| 1926 | 136 |  |  | 136 | 27.60 | 253 |  |
| 1927 | 46 |  |  | 46 | 28.70 | 268 |  |
| 1928 | 913 |  |  | 913 | 41.80 | 398 |  |
| 1929 | 891 |  |  | 891 | 27.50 | 262 |  |
| 1930 | 754 |  |  | 754 | 18.20 | 178 |  |
| 1931 | 1,140 |  |  | 1,140 | 21.70 | 233 |  |
| 1932 | 1,490 |  |  | 1,490 | 11.40 | 136 |  |
| 1933 | 2,040 |  |  | 2,040 | 10.80 | 135 |  |
| 1934 | 4,310 |  |  | 4,310 | 13.20 | 161 |  |
| 1935 | 6,410 |  |  | 6,410 | 13.80 | 164 |  |
| 1936 | 15,400 |  |  | 15,400 | 12.10 | 142 |  |
| 1937 | 24,100 |  |  | 24,100 | 10.80 | 122 |  |
| 1938 | 18,800 |  |  | 18,800 | 10.20 | 118 |  |
| 1939 | 19,200 |  |  | 19,200 | 9.10 | 107 |  |
| 1940 | 20,200 |  |  | 20,200 | 6.80 | 79.20 |  |
| 1941 | 21,300 |  |  | 21,300 | 5.90 | 65.40 |  |
| 1942 | 52,500 |  |  | 52,500 | 6.10 | 61.00 |  |
| 1943 | 42,300 |  |  | 42,300 | 11.10 | 105 |  |
| 1944 | 49,100 |  |  | 49,100 | 11.00 | 102 |  |
| 1945 | 58,800 |  |  | 58,800 | 11.00 | 100 |  |
| 1946 | 78,400 |  |  | 78,400 | 11.10 | 92.50 |  |
| 1947 | 119,000 |  |  | 119,000 | 11.20 | 81.80 |  |
| 1948 | 126,000 |  |  | 126,000 | 11.00 | 74.30 | 126,000 |
| 1949 | 153,000 |  |  | 153,000 | 11.00 | 75.30 | 159,000 |
| 1950 | 189,000 | 15,000 |  | 204,000 | 11.20 | 75.70 | 232,000 |
| 1951 | 190,000 | 9,000 |  | 199,000 | 14.10 | 88.10 | 232,000 |
| 1952 | 190,000 | 7,300 |  | 197,000 | 14.00 | 85.90 | 226,000 |
| 1953 | 172,000 | 6,300 |  | 178,000 | 14.20 | 86.60 | 203,000 |
| 1954 | 177,000 | 6,900 |  | 184,000 | 14.30 | 86.70 | 220,000 |
| 1955 | 185,000 | 9,700 |  | 195,000 | 14.60 | 89.00 | 239,000 |
| 1956 | 175,000 | 7,300 |  | 182,000 | 14.60 | 87.40 | 230,000 |
| 1957 | 167,000 | 5,900 |  | 173,000 | 15.60 | 90.70 | 225,000 |
| 1958 | 173,000 | 7,400 |  | 181,000 | 15.70 | 88.70 | 223,000 |
| 1959 | 188,000 | 11,000 |  | 199,000 | 16.40 | 91.60 | 236,000 |
| 1960 | 181,000 | 11,000 |  | 192,000 | 17.20 | 94.50 | 244,000 |
| 1961 | 187,000 | 12,000 |  | 199,000 | 17.90 | 97.80 | 256,000 |
| 1962 | 186,000 | 14,000 |  | 200,000 | 17.70 | 95.70 | 268,000 |
| 1963 | 205,000 | 13,000 |  | 218,000 | 17.40 | 92.60 | 298,000 |
| 1964 | 205,000 | 17,000 |  | 222,000 | 17.60 | 92.60 | 311,000 |
| 1965 | 226,000 | 15,000 |  | 241,000 | 19.70 | 102 | 344,000 |
| 1966 | 238,000 | 7,700 |  | 245,000 | 20.80 | 105 | 346,000 |
| 1967 | 231,000 | 14,000 |  | 246,000 | 21.50 | 105 | 336,000 |
| 1968 | 263,000 | 9,600 |  | 273,000 | 21.60 | 101 | 382,000 |
| 1969 | 281,000 | 5,900 |  | 287,000 | 24.20 | 107 | 423,000 |
| 1970 | 259,000 | 11,000 |  | 269,000 | 25.10 | 105 | 391,000 |
| 1971 | 273,000 | 16,000 |  | 289,000 | 26.40 | 106 | 416,000 |
| 1972 | 297,000 | 24,000 |  | 320,000 | 26.50 | 103 | 465,000 |
| 1973 | 331,000 | 27,000 |  | 358,000 | 28.60 | 105 | 498,000 |
| 1974 | 309,000 | 38,000 | 40,000 | 308,000 | 32.70 | 108 | 505,000 |
| 1975 | 299,000 | 30,000 | 41,000 | 288,000 | 46.00 | 139 | 533,000 |

# VERMICULITE STATISTICS ${ }^{1}$ 

U.S. GEOLOGICAL SURVEY
[All values in metric tons (t) vermiculite unless otherwise noted]
Last modification: December 4, 2007

| Year | Primary <br> production | Imports | Exports | Apparent <br> consumption | $\begin{array}{\|c\|} \hline \text { Unit value } \\ (\$ / \mathbf{t}) \end{array}$ | $\begin{array}{\|c\|} \hline \text { Unit value } \\ (98 \$ / t) \end{array}$ | World production |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1976 | 276,000 | 36,000 | 37,000 | 275,000 | 50.80 | 146 | 523,000 |
| 1977 | 326,000 | 36,000 | 41,000 | 321,000 | 57.10 | 154 | 520,000 |
| 1978 | 306,000 | 25,000 | 32,000 | 299,000 | 64.40 | 161 | 542,000 |
| 1979 | 314,000 | 24,000 | 30,000 | 308,000 | 70.00 | 157 | 540,000 |
| 1980 | 306,000 | 24,000 | 27,000 | 302,000 | 76.90 | 152 | 538,000 |
| 1981 | 290,000 | 24,000 | 28,000 | 287,000 | 90.30 | 162 | 523,000 |
| 1982 | 287,000 | 19,000 | 20,000 | 286,000 | 99.40 | 168 | 508,000 |
| 1983 | 256,000 | 22,000 | 17,000 | 260,000 | 106 | 173 | 444,000 |
| 1984 | 286,000 | 29,000 | 20,000 | 295,000 | 110 | 173 | 494,000 |
| 1985 | 285,000 | 34,000 | 21,000 | 298,000 | 113 | 171 | 505,000 |
| 1986 | 288,000 | 32,000 | 23,000 | 297,000 | 120 | 178 | 621,000 |
| 1987 | 275,000 | 29,000 | 18,000 | 284,000 | 120 | 172 | 659,000 |
| 1988 | 276,000 | 32,000 | 18,000 | 290,000 | 123 | 169 | 644,000 |
| 1989 | 249,000 | 50,000 | 18,000 | 281,000 | 122 | 160 | 615,000 |
| 1990 | 209,000 | 45,000 | 18,000 | 236,000 | 91.00 | 113 | 572,000 |
| 1991 | 180,000 | 38,000 | 10,000 | 208,000 | 79.00 | 94.50 | 513,000 |
| 1992 | 190,000 | 40,000 | 8,000 | 222,000 | 111 | 129 | 456,000 |
| 1993 | 190,000 | 30,000 | 7,000 | 213,000 | 111 | 125 | 490,000 |
| 1994 | 177,000 | 30,000 | 7,000 | 200,000 | 111 | 122 | 485,000 |
| 1995 | 171,000 | 30,000 | 6,000 | 195,000 | 111 | 119 | 486,000 |
| 1996 | 170,000 | 48,000 | 8,000 | 210,000 | 111 | 115 | 280,000 |
| 1997 |  | 67,000 | 9,000 | 228,000 | 111 | 113 | 301,000 |
| 1998 | 150,000 | 68,000 | 11,000 | 207,000 | 118 | 118 | 328,000 |
| 1999 | 150,000 | 71,000 | 13,000 | 208,000 | 118 | 115 | 541,000 |
| 2000 | 150,000 | 59,000 | 5,000 | 204,000 | 143 | 135 | 521,000 |
| 2001 | 110,000 | 65,000 | 7,000 | 170,000 | 143 | 132 | 431,000 |
| 2002 | 100,000 | 56,000 | 10,000 | 150,000 | 143 | 130 | 498,000 |
| 2003 | 110,000 | 37,000 | 15,000 | 130,000 | 143 | 127 | 491,000 |
| 2004 | 100,000 | 69,000 | 10,000 | 160,000 | 143 | 123 | 513,000 |
| 2005 | 100,000 | 91,000 | 5,000 | 185,000 | 143 | 119 | 521,000 |
| 2006 | 100,000 | 65,000 | 5,000 | 160,000 | 138 | 112 | 520,000 |

${ }^{1}$ Compiled by C.A. DiFrancesco (retired) and M.J. Potter.
Data are calculated, estimated, or reported. See notes for more information.

## Vermiculite Worksheet Notes

## Data Sources

Data sources for the vermiculite worksheet are the mineral statistics publications of the U.S. Bureau of Mines and the U.S. Geological Survey (USGS)—Minerals Yearbook (MYB) and its predecessor, Mineral Resources of the United States (MR), and Mineral Commodity Summaries (MCS) and its predecessor, Commodity Data Summaries (CDS). Other sources include the British Geological Survey (BGS) (1996), Industrial Minerals (IM) (1994), Moeller in Mining Engineering (ME) (1999), and estimates made by the USGS mineral commodity specialist (EST). The years of publication and corresponding years of data coverage are listed in the References section below. Blank cells in the worksheet indicate that data either were not available or were withheld because they are proprietary.

## Production

U.S. production data report the amount of vermiculite (concentrate) sold and used. Data were from the MR and MYB for the years 1924-54, the CDS and the MCS for the years 1955-95, BGS for 1996, ME for 1998-99, and the MYB and EST for the years 200006. Data was withheld for the year 1997 in order to avoid disclosing proprietary data.

## Imports

Import data report the amounts of vermiculite (concentrate) imported into the United States. Data were from the MYB for the years 1950-54, the CDS and the MCS for the years 1955-99, and the MYB and EST for the years 2000-06. Blank cells in the worksheet indicate that data were not available for the years 1924-49.

## Exports

Export data report the amounts of vermiculite (concentrate) exported from the United States. Data were from the CDS and the MCS. Blank cells in the worksheet indicate that data were not available for the years 1924-73.

## Apparent Consumption

Data for U.S. apparent consumption are for vermiculite (concentrate). Apparent consumption was estimated for the years 1924-73 by using the formula:

## APPARENT CONSUMPTION = PRODUCTION + IMPORTS - EXPORTS.

Data for the years 1974-96 were from the CDS and MCS and from EST for the years 1997-2006. Data for the years 2001-04 were rounded to two significant digits.

## Unit Value (\$/t)

Unit value is the value in dollars of 1 metric ton ( t ) of vermiculite (concentrate) apparent consumption. Unit value was estimated for the United States in actual dollars for prices for vermiculite (concentrate) sold and used. Data were from the MR and MYB for the years 1924-54, the CDS and the MCS for the years 1955-91 and 2000-06, and ME for 1998-99. An average price for the years 1992-97 was recorded from the IM.

## 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 production data were for vermiculite (concentrate). World production for the years 1996-98 excludes U.S. production (sold or used). Data were from the MYB. Blank cells in the worksheet indicate that data were not available for the years 1924-47.

## References

Industrial Minerals, 1994, Prices: Industrial Minerals, no. 327, December, p. 63.
Moeller, E.M., 1999, Vermiculite: Mining Engineering, v. 51, no. 6, June, p. 53.
Stockwell, L.E., Hillier, J.A., Mills, A.J., White, R., and Chapman, G.R., comps., 2001, World mineral statistics 1995-99— Production, exports, imports: British Geological Survey.
U.S. Bureau of Mines, 1927-33, Mineral Resources of the United States, 1924-31.
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## 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, available online at http://pubs.usgs.gov/ds/2005/140/. (Accessed [date].)

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