

CHAPTER XIV

STATISTICS OF FERTILIZERS AND PESTICIDES

This chapter contains statistics on percentages of crop acres treated by various types of fertilizers and pesticides. Nitrogen, phosphate, and potash are the most common fertilizers; herbicides, insecticides, fungicides, and other chemicals are the main categories of pesticides. Other chemicals include soil fumigants, vine killers, and dessicants. The tables show data for field crops for 1998–2001, fruits for 1999, and vegetables for 2001. NASS collects data for field crops on an annual basis and data for fruits and vegetables on a bi-yearly alternating basis. The surveyed States are generally the major producing States for each crop shown in the tables and represent 65–95 percent of the U.S. planted acres, depending on the selected crop. Quantities and rates of active chemical ingredients applied to each crop at State levels are available in the NASS series of “Agricultural Chemical Usage” reports.

Table 14-1.—Field crops: Fertilizer, total acreage, and percent of area receiving applications, all States surveyed, 1998–2001¹

| Crop | Nitrogen | Phosphate | Potash |
|--|----------------|----------------|----------------|
| | <i>Percent</i> | <i>Percent</i> | <i>Percent</i> |
| 1998: | | | |
| Corn | 98 | 83 | 66 |
| Cotton, Upland | 84 | 66 | 53 |
| Potatoes, Fall | 100 | 97 | 96 |
| Soybeans | 17 | 24 | 27 |
| Wheat, Durum | 94 | 76 | 5 |
| Wheat, Other Spring | 87 | 77 | 25 |
| Wheat, Winter | 89 | 63 | 22 |
| 1999: | | | |
| Corn | 98 | 82 | 67 |
| Cotton, Upland | 86 | 59 | 52 |
| Peanuts | 64 | 70 | 88 |
| Potatoes, Fall | 100 | 98 | 88 |
| Soybeans | 18 | 26 | 28 |
| Sunflower, All | 95 | 33 | ..... |
| Wheat, Durum ² ..... | ..... | ..... | ..... |
| Wheat, Other Spring ² ..... | ..... | ..... | ..... |
| Wheat, Winter | 97 | 91 | 90 |
| 2000: | | | |
| Corn | 98 | 84 | 66 |
| Cotton, Upland | 83 | 63 | 53 |
| Potatoes, Fall ² ..... | ..... | ..... | ..... |
| Rice | 100 | 59 | 47 |
| Soybeans | 18 | 24 | 27 |
| Sugarbeets | 98 | 92 | 50 |
| Wheat, Durum | 86 | 66 | 5 |
| Wheat, Other Spring | 95 | 84 | 27 |
| Wheat, Winter | 87 | 54 | 17 |
| 2001: | | | |
| Corn | 96 | 79 | 65 |
| Cotton, Upland | 76 | 48 | 41 |
| Potatoes, Fall | 98 | 95 | 86 |
| Soybeans | 11 | 17 | 20 |

¹ Refers to acres receiving one or more applications of a specific fertilizer ingredient. See tables 14-2 through 14-11 for surveyed States. Note: Acreage estimates are on page I–24 for corn, page II–1 for cotton, page III–13 for soybeans, and page I–1 for wheat. ² Data not available for all states for all years.

NASS, Environmental, Economics, and Demographics Branch, (202) 720-6146.

Table 14-2.—Corn: Pesticide usage, 1997–2001 ¹

| State and Year | Percent treated and amount applied | | | |
|----------------|------------------------------------|------------------|--------------------------|------------------|
| | Herbicide ² | | Insecticide ³ | |
| | Area applied | Pounds applied | Area applied | Pounds applied |
| | <i>Percent</i> | <i>Thousands</i> | <i>Percent</i> | <i>Thousands</i> |
| CO:.. | | | | |
| 1998 | 90 | 1,595 | 29 | 530 |
| 1999 | 93 | 1,763 | 45 | 479 |
| 2000 | 97 | 1,501 | 59 | 505 |
| 2001 | 92 | 1,506 | 51 | 431 |
| GA:.. | | | | |
| 2001 | 95 | 398 | 34 | 57 |
| IL:.. | | | | |
| 1997 | 98 | 32,733 | 44 | 4,266 |
| 1998 | 94 | 31,723 | 31 | 1,996 |
| 1999 | 98 | 28,467 | 38 | 1,833 |
| 2000 | 100 | 28,190 | 43 | 3,131 |
| 2001 | 100 | 31,868 | 42 | 1,787 |
| IN:.. | | | | |
| 1997 | 94 | 18,127 | 31 | 1,023 |
| 1998 | 99 | 18,373 | 45 | 1,595 |
| 1999 | 99 | 14,819 | 36 | 1,156 |
| 2000 | 99 | 15,460 | 30 | 797 |
| 2001 | 99 | 16,007 | 47 | 1,103 |
| IA:.. | | | | |
| 1997 | 98 | 36,144 | 19 | 2,323 |
| 1998 | 98 | 31,911 | 18 | 1,534 |
| 1999 | 99 | 27,966 | 25 | 2,462 |
| 2000 | 100 | 24,158 | 16 | 635 |
| 2001 | 99 | 20,627 | 7 | 864 |
| KS:.. | | | | |
| 1998 | 95 | 5,357 | 49 | 400 |
| 1999 | 98 | 6,619 | 32 | 385 |
| 2000 | 93 | 7,765 | 31 | 287 |
| 2001 | 95 | 9,958 | 24 | 657 |
| KY:.. | | | | |
| 1998 | 99 | 4,174 | * | * |
| 1999 | 94 | 3,487 | 50 | 22 |
| 2000 | 95 | 2,600 | 26 | 65 |
| 2001 | 97 | 2,834 | 18 | 43 |
| MI:.. | | | | |
| 1997 | 98 | 6,912 | 11 | 200 |
| 1998 | 97 | 5,740 | 17 | 299 |
| 1999 | 99 | 6,128 | 22 | 214 |
| 2000 | 99 | 5,658 | 10 | 131 |
| 2001 | 88 | 4,944 | 22 | 288 |
| MN:.. | | | | |
| 1997 | 91 | 13,956 | 10 | 291 |
| 1998 | 97 | 14,248 | 10 | 353 |
| 1999 | 98 | 11,126 | 11 | 280 |
| 2000 | 99 | 10,597 | 8 | 369 |
| 2001 | 99 | 13,446 | * | * |
| MO:.. | | | | |
| 1997 | 97 | 8,203 | 35 | 475 |
| 1998 | 95 | 7,718 | 44 | 291 |
| 1999 | 98 | 7,988 | 38 | 218 |
| 2000 | 87 | 5,988 | 20 | 114 |
| 2001 | 97 | 7,232 | 37 | 167 |
| NE:.. | | | | |
| 1997 | 98 | 19,970 | 62 | 3,531 |
| 1998 | 93 | 19,459 | 44 | 1,667 |
| 1999 | 99 | 19,747 | 39 | 1,295 |
| 2000 | 97 | 16,862 | 55 | 1,470 |
| 2001 | 99 | 15,159 | 48 | 1,104 |
| NY:.. | | | | |
| 2000 | 92 | 2,312 | 31 | 204 |
| 2001 | 96 | 2,610 | 19 | 69 |
| NC:.. | | | | |
| 1998 | 96 | 2,150 | 32 | 283 |
| 1999 | 82 | 1,340 | 35 | 222 |
| 2000 | 93 | 1,732 | 46 | 363 |
| 2001 | 96 | 1,558 | 37 | 181 |
| ND:.. | | | | |
| 2000 | 71 | 1,284 | * | * |
| 2001 | 90 | 745 | * | * |
| OH:.. | | | | |
| 1997 | 100 | 12,971 | 18 | 711 |
| 1998 | 99 | 9,722 | 41 | 1,094 |
| 1999 | 99 | 10,136 | 7 | 98 |
| 2000 | 99 | 10,339 | 24 | 603 |
| 2001 | 99 | 9,986 | 26 | 647 |
| PA:.. | | | | |
| 1998 | 97 | 4,436 | 44 | 262 |
| 2000 | 100 | 4,419 | 57 | 302 |
| 2001 | 99 | 4,484 | 60 | 550 |

See footnotes at end of table.

Table 14-2.—Corn: Pesticide usage, 1997–2001¹—Continued

| State and Year | Percent treated and amount applied | | | |
|----------------|------------------------------------|------------------|--------------------------|------------------|
| | Herbicide ² | | Insecticide ³ | |
| | Area applied | Pounds applied | Area applied | Pounds applied |
| | <i>Percent</i> | <i>Thousands</i> | <i>Percent</i> | <i>Thousands</i> |
| SD:..... | | | | |
| 1997 | 93 | 6,346 | 10 | 317 |
| 1998 | 95 | 9,947 | * | * |
| 1999 | 95 | 5,862 | 18 | 520 |
| 2000 | 100 | 5,790 | 15 | 44 |
| 2001 | 96 | 5,622 | 8 | 87 |
| TX:..... | | | | |
| 1998 | 94 | 2,520 | 68 | 1,191 |
| 1999 | 93 | 3,190 | 54 | 458 |
| 2000 | 81 | 2,039 | 55 | 426 |
| 2001 | 90 | 1,990 | 76 | 664 |
| WI:..... | | | | |
| 1998 | 98 | 8,689 | 19 | 433 |
| 1998 | 97 | 7,939 | 24 | 593 |
| 1999 | 96 | 5,421 | 31 | 473 |
| 2000 | 95 | 6,410 | 20 | 365 |
| 2001 | 98 | 6,265 | 16 | 155 |

¹ Data not available for all States for all years. ² Insufficient number of reports to publish data for fungicides and other chemicals. ³ Amount applied excludes Bt (bacillus thuringiensis). Note: Planted acres are on page I-24. * Insufficient number of reports to publish data.

NASS, Environmental, Economics, and Demographics Branch, (202) 720-6146.

Table 14-3.—Corn: Fertilizer usage, 1997–2001¹

| State and Year | Percent treated and amount applied | | | | | |
|----------------|------------------------------------|-----------------|----------------|-----------------|----------------|-----------------|
| | Nitrogen | | Phosphate | | Potash | |
| | Area applied | Pounds applied | Area applied | Pounds applied | Area applied | Pounds applied |
| | <i>Percent</i> | <i>Millions</i> | <i>Percent</i> | <i>Millions</i> | <i>Percent</i> | <i>Millions</i> |
| CO:..... | | | | | | |
| 1998 | 93 | 110.3 | 78 | 18.0 | 49 | 4.9 |
| 1999 | 98 | 165.6 | 65 | 30.3 | 16 | 3.4 |
| 2000 | 95 | 182.0 | 78 | 42.2 | 17 | 7.4 |
| 2001 | 93 | 141.5 | 65 | 32.1 | 24 | 10.8 |
| GA:..... | | | | | | |
| 2001 | 97 | 28.6 | 91 | 12.6 | 87 | 20.8 |
| IL:..... | | | | | | |
| 1997 | 99 | 1,689.5 | 87 | 747.9 | 87 | 1,046.8 |
| 1998 | 99 | 1,636.8 | 74 | 567.8 | 70 | 785.9 |
| 1999 | 98 | 1,639.8 | 80 | 603.2 | 81 | 1,003.0 |
| 2000 | 99 | 1,797.7 | 83 | 739.3 | 82 | 1,028.5 |
| 2001 | 99 | 1,682.8 | 81 | 720.6 | 85 | 1,092.2 |
| IN:..... | | | | | | |
| 1997 | 100 | 876.7 | 96 | 410.9 | 82 | 525.9 |
| 1998 | 100 | 846.3 | 97 | 341.0 | 90 | 619.4 |
| 1999 | 99 | 881.8 | 92 | 299.1 | 88 | 593.3 |
| 2000 | 99 | 864.8 | 90 | 366.1 | 85 | 625.9 |
| 2001 | 98 | 837.4 | 85 | 331.7 | 86 | 660.0 |
| IA:..... | | | | | | |
| 1997 | 99 | 1,464.3 | 75 | 575.4 | 75 | 668.0 |
| 1998 | 96 | 1,529.0 | 81 | 613.8 | 81 | 803.0 |
| 1999 | 98 | 1,502.8 | 75 | 604.9 | 75 | 734.7 |
| 2000 | 95 | 1,533.0 | 74 | 503.2 | 74 | 630.9 |
| 2001 | 87 | 1,272.8 | 62 | 415.8 | 60 | 482.4 |
| KS:..... | | | | | | |
| 1998 | 100 | 514.3 | 83 | 101.4 | 21 | 21.6 |
| 1999 | 99 | 443.3 | 70 | 86.2 | 22 | 20.5 |
| 2000 | 100 | 506.0 | 78 | 97.3 | 39 | 37.1 |
| 2001 | 97 | 444.4 | 71 | 93.5 | 19 | 24.8 |
| KY:..... | | | | | | |
| 1998 | 100 | 227.3 | 94 | 103.7 | 95 | 140.4 |
| 1999 | 100 | 234.9 | 81 | 66.6 | 50 | 64.5 |
| 2000 | 99 | 198.7 | 81 | 88.3 | 80 | 92.0 |
| 2001 | 91 | 173.4 | 87 | 92.5 | 82 | 99.9 |
| MI:..... | | | | | | |
| 1997 | 100 | 309.2 | 91 | 117.9 | 94 | 263.8 |
| 1998 | 95 | 228.9 | 91 | 90.7 | 87 | 179.2 |
| 1999 | 100 | 277.9 | 92 | 91.9 | 91 | 174.4 |
| 2000 | 99 | 240.1 | 96 | 96.9 | 83 | 154.3 |
| 2001 | 91 | 251.3 | 78 | 85.9 | 78 | 175.2 |
| MN:..... | | | | | | |
| 1997 | 97 | 750.9 | 79 | 270.4 | 81 | 309.6 |
| 1998 | 96 | 851.2 | 91 | 352.3 | 87 | 447.9 |
| 1999 | 92 | 702.9 | 90 | 299.6 | 86 | 312.9 |
| 2000 | 97 | 786.4 | 91 | 404.2 | 76 | 377.9 |
| 2001 | 97 | 750.2 | 90 | 283.4 | 81 | 340.5 |

See footnotes at end of table.

Table 14-3.—Corn: Fertilizer usage, 1997–2001¹—Continued

| State and Year | Percent treated and amount applied | | | | | |
|----------------|------------------------------------|-----------------|----------------|-----------------|-----------------|-----------------|
| | Nitrogen | | Phosphate | | Potash | |
| | Area applied | Pounds applied | Area applied | Pounds applied | Area applied | Pounds applied |
| | <i>Percent</i> | <i>Millions</i> | <i>Percent</i> | <i>Millions</i> | <i>Percenta</i> | <i>Millions</i> |
| MO: | | | | | | |
| 1997 | 100 | 447.1 | 84 | 131.3 | 84 | 176.4 |
| 1998 | 99 | 466.7 | 92 | 138.2 | 93 | 184.6 |
| 1999 | 100 | 422.3 | 84 | 136.1 | 84 | 169.4 |
| 2000 | 100 | 422.7 | 82 | 136.3 | 82 | 169.1 |
| 2001 | 99 | 411.6 | 82 | 129.6 | 83 | 161.2 |
| NE: | | | | | | |
| 1997 | 100 | 1,313.1 | 80 | 205.2 | 26 | 33.3 |
| 1998 | 99 | 1,106.1 | 69 | 215.1 | 21 | 33.1 |
| 1999 | 99 | 1,115.2 | 75 | 232.8 | 18 | 22.1 |
| 2000 | 99 | 1,260.7 | 82 | 243.2 | 22 | 21.5 |
| 2001 | 100 | 1,067.0 | 77 | 219.4 | 25 | 42.8 |
| NY: | | | | | | |
| 2000 | 99 | 71.2 | 89 | 45.6 | 78 | 41.8 |
| 2001 | 100 | 76.8 | 98 | 49.4 | 90 | 45.6 |
| NC: | | | | | | |
| 1998 | 98 | 105.1 | 92 | 42.2 | 91 | 76.1 |
| 1999 | 99 | 83.2 | 82 | 36.3 | 88 | 66.3 |
| 2000 | 96 | 86.0 | 88 | 37.5 | 86 | 52.7 |
| 2001 | 98 | 81.8 | 70 | 41.6 | 96 | 56.6 |
| ND: | | | | | | |
| 2000 | 98 | 103.0 | 80 | 38.8 | 29 | 8.7 |
| 2001 | 94 | 89.9 | 83 | 33.8 | 38 | 10.1 |
| OH: | | | | | | |
| 1997 | 99 | 567.5 | 89 | 234.6 | 89 | 313.6 |
| 1998 | 100 | 587.5 | 96 | 243.0 | 74 | 310.3 |
| 1999 | 100 | 527.0 | 97 | 236.1 | 94 | 324.2 |
| 2000 | 100 | 572.8 | 92 | 224.2 | 83 | 287.0 |
| 2001 | 100 | 572.1 | 92 | 210.8 | 89 | 338.9 |
| PA: | | | | | | |
| 1998 | 88 | 128.5 | 71 | 54.4 | 69 | 41.4 |
| 2000 | 95 | 103.8 | 87 | 59.9 | 67 | 35.9 |
| 2001 | 98 | 130.2 | 79 | 55.8 | 76 | 43.4 |
| SD: | | | | | | |
| 1997 | 96 | 303.1 | 80 | 113.9 | 31 | 25.5 |
| 1998 | 94 | 305.9 | 78 | 117.4 | 25 | 21.5 |
| 1999 | 98 | 334.6 | 88 | 136.2 | 49 | 42.5 |
| 2000 | 99 | 418.9 | 92 | 153.6 | 39 | 36.1 |
| 2001 | 95 | 393.8 | 69 | 119.4 | 32 | 38.9 |
| TX: | | | | | | |
| 1998 | 99 | 319.4 | 87 | 89.3 | 21 | 15.4 |
| 1999 | 100 | 304.5 | 80 | 74.5 | 40 | 22.4 |
| 2000 | 98 | 304.0 | 85 | 80.3 | 27 | 15.9 |
| 2001 | 100 | 245.6 | 83 | 66.3 | 40 | 18.4 |
| WI: | | | | | | |
| 1997 | 98 | 285.2 | 97 | 154.0 | 93 | 244.1 |
| 1998 | 97 | 326.8 | 96 | 148.2 | 96 | 188.0 |
| 1999 | 98 | 305.1 | 82 | 104.2 | 91 | 177.8 |
| 2000 | 97 | 300.7 | 89 | 120.6 | 90 | 161.0 |
| 2001 | 98 | 355.3 | 95 | 120.9 | 89 | 169.5 |

¹ Data not available for all States for all years. Note: Planted acres are on page I-24.
 NASS, Environmental, Economics, and Demographics Branch, (202) 720-6146.

Table 14-4.—Upland Cotton: Pesticide usage, 1997–2001 ¹

| State and Year | Percent treated and amount applied | | | | | | | |
|----------------|------------------------------------|----------------|--------------------------|----------------|--------------|----------------|-----------------|----------------|
| | Herbicide | | Insecticide ² | | Fungicide | | Other Chemicals | |
| | Area applied | Pounds applied | Area applied | Pounds applied | Area applied | Pounds applied | Area applied | Pounds applied |
| | Percent | Thousands | Percent | Thousands | Percent | Thousands | Percent | Thousands |
| AL: | | | | | | | | |
| 1997 | 100 | 1,667 | 85 | 469 | 17 | 22 | 69 | 482 |
| 1998 | 99 | 1,300 | 91 | 422 | 16 | 52 | 85 | 454 |
| 1999 | 99 | 1,154 | 87 | 436 | 30 | 130 | 78 | 617 |
| 2000 | 97 | 1,435 | 67 | 270 | 16 | 84 | 58 | 398 |
| AZ: | | | | | | | | |
| 1997 | 87 | 534 | 85 | 705 | * | * | 86 | 770 |
| 1998 | 95 | 426 | 91 | 677 | 4 | 6 | 97 | 947 |
| 1999 | 90 | 519 | 60 | 360 | ** | ** | 95 | 1,361 |
| 2000 | 94 | 497 | 66 | 455 | 10 | 31 | 79 | 670 |
| AR: | | | | | | | | |
| 1997 | 89 | 2,882 | 77 | 678 | 10 | 83 | 84 | 1,335 |
| 1998 | 93 | 2,119 | 98 | 886 | 19 | 71 | 93 | 1,490 |
| 2000 | 95 | 1,993 | 82 | 1,610 | 17 | 57 | 89 | 1,459 |
| 2001 | 96 | 2,312 | 53 | 2,038 | 8 | 9 | 78 | 1,395 |
| CA: | | | | | | | | |
| 1997 | 93 | 1,227 | 92 | 2,242 | * | * | 98 | 3,471 |
| 1998 | 99 | 879 | 98 | 800 | * | * | 99 | 1,611 |
| 1999 | 98 | 1,006 | 94 | 861 | 1 | 7 | 100 | 2,406 |
| 2000 | 99 | 1,475 | 90 | 1,051 | 1 | 9 | 99 | 2,714 |
| 2001 | * | * | * | * | * | * | * | * |
| GA: | | | | | | | | |
| 1997 | 100 | 4,623 | 90 | 895 | ** | ** | 85 | 4,397 |
| 1998 | 99 | 3,629 | 84 | 869 | * | * | 72 | 2,322 |
| 1999 | 98 | 4,249 | 92 | 816 | * | 3 | 78 | 2,992 |
| 2000 | 98 | 3,526 | 81 | 725 | ** | ** | 78 | 3,258 |
| 2001 | 93 | 2,958 | 59 | 366 | ** | ** | 65 | 1,902 |
| LA: | | | | | | | | |
| 1997 | 90 | 2,331 | 85 | 1,789 | 19 | 85 | 66 | 469 |
| 1998 | 96 | 1,655 | 98 | 2,385 | 22 | 76 | 83 | 499 |
| 1999 | 98 | 1,763 | 98 | 4,206 | 9 | 40 | 88 | 707 |
| 2000 | 96 | 1,825 | 98 | 4,795 | 23 | 229 | 88 | 749 |
| 2001 | 95 | 2,552 | 93 | 2,217 | 16 | 70 | 88 | 931 |
| MS: | | | | | | | | |
| 1997 | 100 | 3,124 | 100 | 3,972 | 30 | 447 | 97 | 1,556 |
| 1998 | 100 | 2,588 | 98 | 4,757 | 16 | 115 | 92 | 1,103 |
| 1999 | 100 | 3,821 | 98 | 6,580 | 17 | 180 | 99 | 1,980 |
| 2000 | 98 | 3,557 | 99 | 6,112 | 15 | 131 | 99 | 1,986 |
| 2001 | 99 | 3,913 | 92 | 3,306 | 5 | 22 | 95 | 2,461 |
| MO: | | | | | | | | |
| 1997 | 100 | 839 | 71 | 210 | * | * | 99 | 573 |
| 2000 | 94 | 677 | 90 | 360 | * | * | 97 | 695 |
| NC: | | | | | | | | |
| 1997 | 97 | 1,832 | 92 | 339 | * | * | 96 | 1,093 |
| 1998 | 95 | 1,494 | 92 | 363 | 9 | 30 | 89 | 909 |
| 1999 | 96 | 2,079 | 91 | 533 | 6 | 42 | 57 | 996 |
| 2000 | 99 | 2,375 | 94 | 510 | 4 | 19 | 91 | 1,921 |
| 2001 | * | * | * | * | * | * | * | * |
| SC: | | | | | | | | |
| 1997 | 100 | 875 | 98 | 241 | 18 | 5 | 96 | 467 |
| TN: | | | | | | | | |
| 1997 | 98 | 1,275 | 85 | 417 | 29 | 123 | 79 | 551 |
| 1998 | 100 | 1,127 | 97 | 1,297 | 37 | 61 | 93 | 547 |
| 1999 | 96 | 1,385 | 95 | 1,222 | 27 | 132 | 89 | 585 |
| 2000 | 99 | 1,347 | 100 | 4,333 | 20 | 77 | 93 | 691 |
| TX: | | | | | | | | |
| 1997 | 97 | 6,401 | 62 | 6,327 | ** | ** | 53 | 2,398 |
| 1998 | 93 | 6,989 | 47 | 2,833 | * | * | 45 | 2,113 |
| 1999 | 97 | 7,081 | 76 | 23,417 | 1 | 49 | 32 | 1,840 |
| 2000 | 92 | 7,847 | 69 | 20,639 | * | * | 29 | 1,593 |
| 2001 | 85 | 5,921 | 58 | 14,587 | 1 | 19 | 20 | 1,330 |

¹Data not available for all States for all years. ²Amount applied excludes Bt (bacillus thuringiensis). * Insufficient number of reports to publish data. ** No reports received for this pesticide class. Note: Planted acres are on page II-1. NASS, Environmental, Economics, and Demographics Branch, (202) 720-6146.

Table 14-5.—Upland Cotton: Fertilizer usage, 1997–2001 ¹

| State and Year | Percent treated and amount applied | | | | | |
|----------------|------------------------------------|----------------|---------------------------|----------------|---------------------------|----------------|
| | Nitrogen | | Phosphate | | Potash | |
| | Area applied ² | Pounds applied | Area applied ² | Pounds applied | Area applied ² | Pounds applied |
| | Percent | Millions | Percent | Millions | Percent | Millions |
| AL: | | | | | | |
| 1997 | 100 | 47.8 | 93 | 26.8 | 95 | 40.1 |
| 1998 | 99 | 38.3 | 94 | 27.3 | 94 | 35.5 |
| 1999 | 97 | 46.5 | 94 | 36.3 | 95 | 45.3 |
| 2000 | 100 | 60.5 | 95 | 35.2 | 91 | 46.7 |
| AZ: | | | | | | |
| 1997 | 99 | 41.8 | 29 | 5.2 | 4 | 0.6 |
| 1998 | 98 | 34.5 | 38 | 6.1 | 13 | 0.3 |
| 1999 | 99 | 39.6 | 22 | 5.0 | 15 | 0.7 |
| 2000 | 98 | 35.6 | 30 | 4.7 | 8 | 0.9 |
| AR: | | | | | | |
| 1997 | 92 | 67.2 | 83 | 42.5 | 91 | 57.6 |
| 1998 | 98 | 82.4 | 88 | 33.8 | 88 | 61.6 |
| 1999 | 97 | 88.0 | 82 | 31.8 | 85 | 63.5 |
| 2000 | 100 | 84.2 | 78 | 30.5 | 84 | 66.1 |
| 2001 | 93 | 80.3 | 63 | 24.6 | 68 | 54.0 |
| CA: | | | | | | |
| 1997 | 96 | 122.7 | 25 | 13.4 | 26 | 16.7 |
| 1998 | 98 | 81.8 | 23 | 11.2 | 13 | 6.9 |
| 1999 | 99 | 92.6 | 51 | 19.1 | 19 | 11.1 |
| 2000 | 98 | 105.4 | 29 | 12.6 | 12 | 5.3 |
| 2001 | * | * | * | * | * | * |
| GA: | | | | | | |
| 1997 | 95 | 126.3 | 94 | 81.4 | 99 | 132.0 |
| 1998 | 96 | 119.6 | 90 | 71.3 | 92 | 123.4 |
| 1999 | 100 | 127.2 | 98 | 81.3 | 100 | 160.3 |
| 2000 | 96 | 124.9 | 94 | 77.6 | 93 | 117.7 |
| 2001 | 99 | 116.2 | 92 | 71.9 | 93 | 119.3 |
| LA: | | | | | | |
| 1997 | 98 | 48.5 | 71 | 22.8 | 76 | 33.8 |
| 1998 | 99 | 47.9 | 69 | 15.5 | 73 | 29.8 |
| 1999 | 100 | 52.4 | 43 | 14.7 | 45 | 18.9 |
| 2000 | 100 | 60.7 | 64 | 20.1 | 66 | 33.0 |
| 2001 | 95 | 70.8 | 50 | 18.4 | 52 | 35.1 |
| MS: | | | | | | |
| 1997 | 100 | 107.3 | 46 | 22.6 | 77 | 72.1 |
| 1998 | 97 | 98.5 | 51 | 27.6 | 67 | 62.9 |
| 1999 | 100 | 133.3 | 36 | 21.2 | 65 | 85.8 |
| 2000 | 100 | 147.7 | 44 | 29.5 | 68 | 86.1 |
| 2001 | 99 | 179.9 | 31 | 25.8 | 46 | 72.5 |
| MO: | | | | | | |
| 1997 | 100 | 42.6 | 72 | 10.0 | 95 | 28.1 |
| 2000 | 100 | 40.4 | 86 | 11.7 | 95 | 33.5 |
| NC: | | | | | | |
| 1997 | 92 | 38.4 | 64 | 16.6 | 85 | 56.8 |
| 1998 | 98 | 60.2 | 90 | 35.0 | 93 | 71.6 |
| 1999 | 96 | 66.3 | 89 | 37.0 | 96 | 90.3 |
| 2000 | 96 | 76.0 | 80 | 34.9 | 91 | 98.5 |
| 2001 | * | * | * | * | * | * |
| SC: | | | | | | |
| 1997 | 100 | 26.8 | 100 | 15.8 | 100 | 34.2 |
| TN: | | | | | | |
| 1997 | 100 | 44.8 | 99 | 27.4 | 99 | 42.9 |
| 1998 | 99 | 42.6 | 100 | 28.4 | 100 | 41.0 |
| 1999 | 100 | 51.2 | 99 | 30.2 | 100 | 50.9 |
| 2000 | 99 | 47.5 | 93 | 29.8 | 98 | 50.4 |
| TX: | | | | | | |
| 1997 | 82 | 280.9 | 62 | 126.3 | 29 | 25.8 |
| 1998 | 68 | 237.7 | 56 | 122.0 | 27 | 28.5 |
| 1999 | 71 | 281.8 | 45 | 112.8 | 23 | 26.6 |
| 2000 | 63 | 263.4 | 54 | 136.9 | 26 | 31.1 |
| 2001 | 52 | 195.9 | 37 | 85.2 | 14 | 16.4 |

¹ Data not available for all States for all years. ² Planted acres are on page II-1.

NASS, Environmental, Economics, and Demographics Branch, (202) 720-6146.

Table 14-6.—Fall potatoes: Pesticide usage, 1997–1999¹

| State and Year | Percent treated and amount applied | | | | | | | |
|----------------|------------------------------------|------------------|---------------------------|------------------|---------------------------|------------------|-----------------|------------------|
| | Herbicide | | Insecticide ² | | Fungicide | | Other Chemicals | |
| | Area applied ³ | Pounds applied | Area applied ³ | Pounds applied | Area applied ³ | Pounds applied | Area applied | Pounds applied |
| | <i>Percent</i> | <i>Thousands</i> | <i>Percent</i> | <i>Thousands</i> | <i>Percent</i> | <i>Thousands</i> | <i>Percent</i> | <i>Thousands</i> |
| CO: | | | | | | | | |
| 1999 | 86 | 175 | 76 | 39 | 98 | 387 | 57 | 14,056 |
| ID: | | | | | | | | |
| 1997 | 92 | 962 | 92 | 1,057 | 100 | 2,233 | 59 | 40,356 |
| 1999 | 92 | 953 | 92 | 1,066 | 92 | 1,502 | 56 | 53,358 |
| 2001 | 75 | 714 | 93 | 853 | 70 | 691 | 59 | 46,698 |
| ME: | | | | | | | | |
| 1997 | 96 | 39 | 97 | 68 | 99 | 641 | 96 | 1,609 |
| 1999 | 100 | 25 | 97 | 29 | 100 | 553 | 24 | 89 |
| 2001 | 92 | 28 | 88 | 13 | 98 | 530 | 97 | 405 |
| MI: | | | | | | | | |
| 1999 | 100 | 101 | 100 | 52 | 99 | 609 | 56 | 137 |
| MN: | | | | | | | | |
| 1997 | 28 | 35 | 99 | 84 | 98 | 816 | 82 | 113 |
| 1999 | 86 | 82 | 91 | 54 | 93 | 577 | 16 | 2,103 |
| 2001 | 78 | 53 | 95 | 18 | 97 | 431 | 56 | 456 |
| NY: | | | | | | | | |
| 1995 | 86 | 52 | 93 | 68 | 91 | 211 | 65 | 16 |
| ND: | | | | | | | | |
| 1997 | 63 | 134 | 77 | 161 | 99 | 1,232 | 36 | 22 |
| 1999 | 83 | 94 | 95 | 121 | 99 | 966 | 5 | 1,315 |
| 2001 | * | * | * | * | * | * | * | * |
| OR: | | | | | | | | |
| 1997 | 94 | 142 | 85 | 178 | 93 | 346 | 69 | 8,306 |
| 1999 | 100 | 129 | 89 | 183 | 97 | 314 | 65 | 7,489 |
| 2001 | * | * | * | * | * | * | * | * |
| PA: | | | | | | | | |
| 1998 | 90 | 36 | 99 | 32 | 99 | 152 | 69 | 5 |
| 1999 | 94 | 35 | 99 | 47 | 95 | 125 | 3 | 4 |
| WA: | | | | | | | | |
| 1997 | 85 | 264 | 99 | 644 | 95 | 1,084 | 71 | 9,658 |
| 1998 | 98 | 360 | 99 | 810 | 97 | 1,206 | 75 | 19,377 |
| 2001 | 92 | 290 | 95 | 647 | 91 | 1,108 | 78 | 14,470 |
| WI: | | | | | | | | |
| 1997 | 98 | 70 | 95 | 95 | 100 | 1,103 | 87 | 3,601 |
| 1998 | 96 | 85 | 97 | 119 | 99 | 1,065 | 91 | 2,538 |
| 1999 | 98 | 84 | 100 | 193 | 98 | 921 | 16 | 1,104 |
| 2001 | 88 | 73 | 100 | 110 | 97 | 1,193 | 86 | 2,644 |

¹ Data not available for all States for all years. ² Amount applied excludes Bt (*bacillus thuringiensis*). ³ Planted acres are on page IV-21.

Table 14-7.—Fall potatoes: Fertilizer usage, 1997–2000¹

| State and Year | Percent treated and amount applied | | | | | |
|----------------|------------------------------------|-----------------|----------------|-----------------|----------------|-----------------|
| | Nitrogen | | Phosphate | | Potash | |
| | Area applied | Pounds applied | Area applied | Pounds applied | Area applied | Pounds applied |
| | <i>Percent</i> | <i>Millions</i> | <i>Percent</i> | <i>Millions</i> | <i>Percent</i> | <i>Millions</i> |
| CO: 1999 | 98 | 14.6 | 95 | 13.3 | 74 | 5.6 |
| ID: 1997 | 100 | 103.6 | 97 | 72.3 | 88 | 41.7 |
| 1999 | 100 | 91.0 | 99 | 78.5 | 82 | 42.7 |
| 2001 | 99 | 79.6 | 97 | 63.2 | 77 | 35.1 |
| IN: 1999 | 100 | 0.6 | 100 | 0.5 | 100 | 0.5 |
| ME: 1997 | 100 | 12.9 | 100 | 13.3 | 100 | 13.5 |
| 1999 | 100 | 11.5 | 100 | 12.3 | 100 | 12.4 |
| 2001 | 98 | 11.0 | 98 | 11.4 | 98 | 11.8 |
| MI: 1999 | 100 | 10.1 | 98 | 6.6 | 100 | 10.0 |
| MN: 1997 | 96 | 11.9 | 99 | 6.1 | 97 | 6.6 |
| 1999 | 99 | 8.0 | 91 | 5.3 | 91 | 9.6 |
| 2001 | 93 | 6.4 | 89 | 4.5 | 89 | 7.6 |
| ND: 1997 | 100 | 16.7 | 96 | 11.7 | 80 | 7.7 |
| 1999 | 99 | 15.4 | 98 | 10.9 | 83 | 9.2 |
| 2001 | * | * | * | * | * | * |
| OR: 1997 | 100 | 15.1 | 100 | 10.8 | 87 | 11.1 |
| 1999 | 100 | 13.5 | 100 | 8.2 | 91 | 7.5 |
| 2001 | * | * | * | * | * | * |
| PA: 1998 | 100 | 2.1 | 97 | 1.6 | 96 | 2.1 |
| 1999 | 97 | 2.2 | 97 | 1.8 | 97 | 2.0 |
| WA: 1997 | 100 | 47.9 | 99 | 42.6 | 98 | 31.6 |
| 1999 | 100 | 55.5 | 99 | 40.7 | 97 | 43.7 |
| 2001 | 97 | 37.6 | 92 | 33.0 | 92 | 37.4 |
| WI: 1997 | 100 | 15.0 | 100 | 9.5 | 100 | 22.2 |
| 1999 | 100 | 20.8 | 100 | 12.0 | 99 | 20.4 |
| 2001 | 100 | 22.0 | 98 | 13.7 | 100 | 24.3 |

¹ Data not available for all states for all years. Note: Planted acres are on page IV-21. NASS, Environmental, Economics, and Demographics Branch, (202) 720-6146.

Table 14-8.—Soybeans: Pesticide usage, 1997–2001¹

| State and Year | Percent treated and amount applied ² | | | |
|----------------|---|------------------|--------------------------|------------------|
| | Herbicide | | Insecticide ³ | |
| | Area applied | Pounds applied | Area applied | Pounds applied |
| | <i>Percent</i> | <i>Thousands</i> | <i>Percent</i> | <i>Thousands</i> |
| AR: 1997 | 97 | 5,019 | * | * |
| 1998 | 75 | 3,058 | 4 | 37 |
| 1999 | 94 | 3,670 | 9 | 17 |
| 2000 | 86 | 2,918 | 3 | 4 |
| 2001 | 80 | 2,440 | * | * |
| DE: 1997 | 78 | 314 | * | * |
| IL: 1997 | 98 | 11,136 | * | * |
| 1998 | 95 | 11,354 | * | * |
| 1999 | 96 | 10,290 | * | 20 |
| 2000 | 98 | 10,582 | 1 | 3 |
| 2001 | 96 | 10,102 | ** | ** |
| IN: 1997 | 99 | 7,062 | ** | ** |
| 1998 | 98 | 5,798 | ** | ** |
| 1999 | 89 | 5,750 | ** | ** |
| 2000 | 99 | 5,414 | * | * |
| 2001 | 98 | 5,612 | ** | ** |
| IA: 1997 | 99 | 13,691 | ** | ** |
| 1998 | 100 | 11,866 | ** | ** |
| 1999 | 99 | 11,995 | ** | ** |
| 2000 | 98 | 13,053 | * | * |
| 2001 | 95 | 11,704 | * | * |
| KS: 1997 | 94 | 2,947 | * | * |
| 1998 | 95 | 2,156 | * | * |
| 1999 | 97 | 3,273 | * | 1 |
| 2000 | 94 | 2,953 | * | * |

See footnotes at end of table.

Table 14-8.—Soybeans: Pesticide usage, 1997–2001¹—Continued

| State and Year | Percent treated and amount applied ² | | | |
|----------------|---|----------------|--------------------------|----------------|
| | Herbicide | | Insecticide ³ | |
| | Area applied | Pounds applied | Area applied | Pounds applied |
| | Percent | Thousands | Percent | Thousands |
| KY: | | | | |
| 1997 | 91 | 1,460 | * | * |
| 1998 | 98 | 1,239 | * | * |
| 1999 | 94 | 1,037 | * | * |
| 2000 | 88 | 1,151 | 1 | 6 |
| LA: | | | | |
| 1997 | 90 | 1,843 | 29 | 331 |
| 1998 | 89 | 1,442 | 32 | 217 |
| 1999 | 94 | 1,123 | 53 | 229 |
| 2000 | 96 | 1091 | 56 | 173 |
| MI: | | | | |
| 1997 | 98 | 2,452 | ** | ** |
| 1998 | 98 | 2,620 | * | * |
| 1999 | 97 | 2,342 | ** | ** |
| 2000 | 98 | 2,094 | * | * |
| MN: | | | | |
| 1997 | 96 | 6,902 | ** | ** |
| 1998 | 97 | 6,071 | * | * |
| 1999 | 97 | 6,203 | ** | ** |
| 2000 | 95 | 7,151 | ** | ** |
| 2001 | 99 | 6,363 | ** | ** |
| MS: | | | | |
| 1997 | 98 | 2,453 | * | * |
| 1998 | 100 | 2,948 | 6 | 33 |
| 1999 | 99 | 2,967 | 9 | 78 |
| 2000 | 99 | 2,096 | 5 | 23 |
| MO: | | | | |
| 1997 | 94 | 5,521 | ** | * |
| 1998 | 92 | 6,152 | ** | ** |
| 1999 | 97 | 5,556 | ** | ** |
| 2000 | 98 | 5,867 | ** | ** |
| 2001 | 95 | 4,691 | * | * |
| NE: | | | | |
| 1997 | 99 | 4,093 | * | * |
| 1998 | 88 | 4,226 | * | * |
| 1999 | 96 | 4,758 | 1 | 10 |
| 2000 | 98 | 5,795 | * | * |
| 2001 | 96 | 5,336 | * | * |
| NC: | | | | |
| 1997 | 98 | 1,625 | 35 | 130 |
| 1998 | 84 | 1,440 | 3 | 20 |
| 1999 | 88 | 1,283 | 3 | 3 |
| 2000 | 92 | 1,016 | 7 | 15 |
| ND: | | | | |
| 2000 | 99 | 2,046 | ** | ** |
| OH: | | | | |
| 1997 | 99 | 5,307 | * | * |
| 1998 | 99 | 5,435 | * | * |
| 1999 | 99 | 4,705 | * | 3 |
| 2000 | 98 | 4,586 | 1 | 2 |
| 2001 | 96 | 4,216 | * | * |
| PA: | | | | |
| 1997 | 86 | 661 | ** | ** |
| 1999 | 99 | 429 | 11 | 20 |
| SD: | | | | |
| 1997 | 90 | 3,059 | * | * |
| 1998 | 96 | 3,706 | * | * |
| 2000 | 98 | 4,863 | ** | ** |
| TN: | | | | |
| 1997 | 100 | 1,664 | * | * |
| 1998 | 98 | 1,926 | * | * |
| 1999 | 98 | 1,405 | 2 | 19 |
| 2000 | 95 | 1,319 | 1 | 8 |
| WI: | | | | |
| 1997 | 100 | 998 | ** | ** |
| 2000 | 85 | 1,169 | ** | ** |

¹ Data not available for all States for all years. ² Insufficient number of reports to publish data for fungicides and other chemicals. ³ Amount applied excludes Bt (bacillus thuringiensis). * Insufficient number of reports to publish data. ** No reports received for this pesticide class. Note: Planted acres are on page III-13.

NASS, Environmental, Economics, and Demographics Branch, (202) 720-6146.

Table 14-9.—Soybeans: Fertilizer usage, 1997–2001 ¹

| State and Year | Percent treated and amount applied | | | | | |
|----------------|------------------------------------|----------------|--------------|----------------|--------------|----------------|
| | Nitrogen | | Phosphate | | Potash | |
| | Area applied | Pounds applied | Area applied | Pounds applied | Area applied | Pounds applied |
| | Percent | Millions | Percent | Millions | Percent | Millions |
| AR: | | | | | | |
| 1997 | 6 | 9.3 | 29 | 60.8 | 30 | 71.4 |
| 1998 | 5 | 8.6 | 29 | 65.3 | 29 | 75.4 |
| 1999 | 17 | 17.3 | 43 | 78.0 | 40 | 90.0 |
| 2000 | 10 | 21.0 | 30 | 43.4 | 31 | 73.0 |
| 2001 | 3 | 3.4 | 30 | 42.8 | 24 | 54.9 |
| DE: | | | | | | |
| 1997 | 37 | 1.5 | 38 | 3.8 | 29 | 5.7 |
| IL: | | | | | | |
| 1997 | 11 | 12.6 | 23 | 160.3 | 34 | 352.5 |
| 1998 | 7 | 17.2 | 12 | 78.7 | 24 | 321.4 |
| 1999 | 7 | 16.2 | 14 | 64.1 | 28 | 304.0 |
| 2000 | 11 | 16.8 | 16 | 77.5 | 29 | 286.0 |
| 2001 | 10 | 42.8 | 12 | 95.8 | 22 | 250.5 |
| IN: | | | | | | |
| 1997 | 16 | 40.8 | 22 | 65.2 | 36 | 213.0 |
| 1998 | 15 | 25.0 | 26 | 70.4 | 51 | 255.3 |
| 1999 | 28 | 33.6 | 36 | 105.3 | 36 | 219.8 |
| 2000 | 7 | 11.0 | 15 | 53.9 | 33 | 207.8 |
| 2001 | 12 | 11.4 | 20 | 58.1 | 36 | 222.4 |
| IA: | | | | | | |
| 1997 | 16 | 30.4 | 23 | 129.3 | 25 | 205.4 |
| 1998 | 10 | 20.4 | 13 | 62.1 | 14 | 79.0 |
| 1999 | 7 | 23.5 | 17 | 103.5 | 22 | 173.7 |
| 2000 | 15 | 81.0 | 22 | 110.1 | 22 | 138.0 |
| 2001 | 5 | 9.9 | 9 | 47.9 | 10 | 71.3 |
| KS: | | | | | | |
| 1997 | 20 | 12.1 | 18 | 14.8 | 15 | 18.9 |
| 1998 | 16 | 7.5 | 21 | 16.6 | 11 | 8.3 |
| 1999 | 22 | 14.9 | 22 | 19.4 | 15 | 7.6 |
| 2000 | 18 | 10.3 | 16 | 16.9 | * | * |
| KY: | | | | | | |
| 1997 | 32 | 22.7 | 42 | 36.9 | 41 | 59.4 |
| 1998 | 35 | 17.0 | 58 | 58.9 | 63 | 73.3 |
| 1999 | 17 | 4.8 | 25 | 18.3 | 26 | 24.2 |
| 2000 | 13 | 7.7 | 40 | 31.7 | 39 | 37.7 |
| LA: | | | | | | |
| 1997 | 13 | 5.8 | 23 | 13.8 | 23 | 21.3 |
| 1998 | 3 | 0.4 | 25 | 12.0 | 26 | 19.4 |
| 1999 | 5 | 1.4 | 14 | 7.2 | 11 | 6.8 |
| 2000 | 6 | 1.5 | 20 | 7.3 | 26 | 15.6 |
| MI: | | | | | | |
| 1997 | 63 | 21.3 | 49 | 49.9 | 71 | 100.9 |
| 1998 | 72 | 24.3 | 73 | 54.6 | 75 | 99.5 |
| 1999 | 31 | 9.5 | 45 | 27.7 | 65 | 109.5 |
| 2000 | 37 | 11.1 | 40 | 44.8 | 72 | 131.2 |
| MN: | | | | | | |
| 1997 | 16 | 15.2 | 20 | 55.6 | 22 | 141.5 |
| 1998 | 18 | 27.5 | 17 | 38.1 | 9 | 33.1 |
| 1999 | 13 | 18.7 | 13 | 29.5 | 13 | 54.5 |
| 2000 | 8 | 10.2 | 9 | 24.1 | 24 | 118.6 |
| 2001 | 13 | 15.3 | 13 | 32.3 | 12 | 41.5 |
| MS: | | | | | | |
| 1997 | 16 | 5.4 | 23 | 25.5 | 26 | 48.4 |
| 1998 | 6 | 2.1 | 10 | 10.0 | 16 | 23.2 |
| 1999 | 10 | 4.2 | 15 | 14.1 | 22 | 23.9 |
| 2000 | 9 | 3.4 | 19 | 14.3 | 20 | 23.5 |
| MO: | | | | | | |
| 1997 | 15 | 17.2 | 28 | 60.4 | 35 | 136.2 |
| 1998 | 24 | 25.9 | 47 | 119.8 | 53 | 198.2 |
| 1999 | 15 | 11.7 | 23 | 54.8 | 23 | 87.3 |
| 2000 | 20 | 27.5 | 28 | 98.1 | 27 | 94.2 |
| 2001 | 6 | 5.4 | 24 | 52.2 | 22 | 61.7 |

See footnotes at end of table.

Table 14-9.—Soybeans: Fertilizer usage, 1997–2001¹—Continued

| State and Year | Percent treated and amount applied | | | | | |
|----------------|------------------------------------|-----------------|----------------|-----------------|----------------|-----------------|
| | Nitrogen | | Phosphate | | Potash | |
| | Area applied | Pounds applied | Area applied | Pounds applied | Area applied | Pounds applied |
| | <i>Percent</i> | <i>Millions</i> | <i>Percent</i> | <i>Millions</i> | <i>Percent</i> | <i>Millions</i> |
| NE: | | | | | | |
| 1997 | 31 | 19.5 | 31 | 45.9 | 16 | 11.3 |
| 1998 | 22 | 12.1 | 19 | 27.0 | 8 | 7.3 |
| 1999 | 25 | 17.8 | 25 | 31.7 | 16 | 17.0 |
| 2000 | 30 | 19.8 | 20 | 36.7 | 15 | 6.2 |
| 2001 | 22 | 23.4 | 21 | 38.3 | 10 | 13.2 |
| NC: | | | | | | |
| 1997 | 52 | 46.7 | 67 | 36.8 | 77 | 103.3 |
| 1998 | 36 | 12.4 | 34 | 19.4 | 39 | 47.3 |
| 1999 | 54 | 15.8 | 71 | 53.9 | 71 | 85.0 |
| 2000 | 38 | 12.6 | 62 | 64.7 | 47 | 47.7 |
| ND: | | | | | | |
| 2000 | 46 | 27.8 | 41 | 25.3 | * | * |
| OH: | | | | | | |
| 1997 | 16 | 11.9 | 26 | 56.8 | 60 | 308.4 |
| 1998 | 19 | 16.5 | 29 | 71.9 | 42 | 179.3 |
| 1999 | 21 | 14.4 | 35 | 81.6 | 47 | 205.6 |
| 2000 | 25 | 21.7 | 32 | 70.2 | 47 | 192.8 |
| 2001 | 17 | 19.1 | 30 | 63.9 | 41 | 164.7 |
| PA: | | | | | | |
| 1997 | 53 | 3.4 | 55 | 8.7 | 59 | 19.5 |
| 1999 | 37 | 2.8 | 41 | 7.5 | 43 | 10.0 |
| SD: | | | | | | |
| 1997 | 35 | 43.3 | 34 | 42.2 | 18 | 14.5 |
| 1998 | 32 | 29.7 | 32 | 38.1 | 11 | 2.9 |
| 1999 | 47 | 41.3 | 47 | 88.3 | 19 | 21.3 |
| 2000 | 38 | 24.3 | 43 | 66.0 | 12 | 12.2 |
| TN: | | | | | | |
| 1997 | 29 | 7.4 | 48 | 33.1 | 52 | 52.6 |
| 1998 | 19 | 4.5 | 36 | 20.7 | 39 | 29.4 |
| 1999 | 34 | 7.1 | 46 | 25.9 | 48 | 38.4 |
| 2000 | 18 | 3.0 | 29 | 14.3 | 31 | 22.2 |
| WI: | | | | | | |
| 1997 | 53 | 8.2 | 54 | 11.7 | 69 | 56.0 |
| 2000 | 24 | 6.5 | 30 | 16.6 | 40 | 46.2 |

¹ Data not available for all States for all years. Note: Planted acres are on page III-13. * Insufficient number of reports to publish data.

NASS, Environmental, Economics, and Demographics Branch, (202) 720-6146.

Table 14-10.—Wheat: Pesticide usage, 1997–2001 ¹

| State and Year | Percent treated and amount applied ² | | | |
|----------------|---|------------------|--------------------------|------------------|
| | Herbicide | | Insecticide ³ | |
| | Area applied | Pounds applied | Area applied | Pounds applied |
| | <i>Percent</i> | <i>Thousands</i> | <i>Percent</i> | <i>Thousands</i> |
| Winter. | | | | |
| AR: | | | | |
| 2000 | 41 | 239 | ** | ** |
| CA: | | | | |
| 1998 | 47 | 146 | * | * |
| CO: | | | | |
| 1997 | 64 | 803 | 13 | 321 |
| 1998 | 61 | 610 | * | * |
| 2000 | 23 | 281 | * | * |
| GA: | | | | |
| 1998 | 38 | 80 | * | * |
| ID: | | | | |
| 1997 | 98 | 631 | ** | ** |
| 1998 | 88 | 495 | * | * |
| 2000 | 89 | 411 | 4 | 15 |
| IL: | | | | |
| 1997 | 40 | 16 | ** | ** |
| 1998 | 47 | 17 | * | * |
| 2000 | 44 | 21 | ** | ** |
| IN: | | | | |
| 1999 | 39 | 28 | * | * |
| KS: | | | | |
| 1997 | 31 | 819 | ** | ** |
| 1998 | 35 | 1,620 | ** | ** |
| 2000 | 31 | 478 | 8 | 395 |
| KY: | | | | |
| 2000 | 51 | 57 | 8 | 15 |
| LA: | | | | |
| 1998 | * | * | * | * |
| MS: | | | | |
| 1998 | 55 | 78 | * | * |
| MO: | | | | |
| 1997 | 33 | 67 | ** | ** |
| 1998 | 28 | 12 | ** | ** |
| 2000 | 51 | 47 | * | * |
| MT: | | | | |
| 1997 | 88 | 1,089 | * | * |
| 1998 | 89 | 889 | ** | ** |
| 2000 | 91 | 745 | * | * |
| NE: | | | | |
| 1997 | 53 | 189 | ** | ** |
| 1998 | 52 | 320 | * | * |
| 2000 | 26 | 248 | ** | ** |
| NC: | | | | |
| 1998 | 60 | 92 | 13 | 11 |
| 2000 | 65 | 206 | 19 | 3 |
| OH: | | | | |
| 1997 | 20 | 56 | ** | ** |
| 1998 | 13 | 75 | ** | ** |
| 2000 | 18 | 53 | ** | ** |
| OK: | | | | |
| 1997 | 38 | 435 | 13 | 234 |
| 1998 | 42 | 827 | 6 | 89 |
| 2000 | 25 | 94 | * | * |
| OR: | | | | |
| 1997 | 100 | 516 | * | * |
| 1998 | 100 | 415 | * | * |
| 2000 | 99 | 550 | ** | ** |
| PA: | | | | |
| 1997 | 21 | 8 | * | * |
| SD: | | | | |
| 1997 | 89 | 383 | ** | ** |
| 1998 | 88 | 589 | * | * |
| 2000 | 56 | 415 | ** | ** |
| TX: | | | | |
| 1997 | 24 | 181 | 18 | 351 |
| 1998 | 27 | 435 | 7 | 177 |
| 2000 | 12 | 441 | 1 | 26 |
| WA: | | | | |
| 1997 | 98 | 1,584 | * | * |
| 1998 | 97 | 1,718 | * | * |
| 1999 | 95 | 847 | ** | ** |

See footnotes at end of table.

Table 14-10.—Wheat: Pesticide usage, 1997–2001 ¹—Continued

| State and Year | Percent treated and amount applied ² | | | |
|----------------|---|------------------|--------------------------|------------------|
| | Herbicide | | Insecticide ³ | |
| | Area applied | Pounds applied | Area applied | Pounds applied |
| | <i>Percent</i> | <i>Thousands</i> | <i>Percent</i> | <i>Thousands</i> |
| Durum. | | | | |
| ND: | | | | |
| 1997 | 93 | 2,221 | 2 | 12 |
| 1998 | 98 | 2,631 | * | * |
| 2000 | 97 | 2,807 | * | * |
| Other | | | | |
| Spring. | | | | |
| ID: | | | | |
| 1998 | 95 | 392 | * | * |
| MN: | | | | |
| 1997 | 94 | 1,434 | * | * |
| 1998 | 97 | 1,396 | 11 | 65 |
| 2000 | 92 | 1,845 | * | * |
| MT: | | | | |
| 1997 | 94 | 3,254 | * | * |
| 1998 | 81 | 1,816 | * | * |
| 2000 | 92 | 2,955 | ** | ** |
| ND: | | | | |
| 1997 | 88 | 4,583 | * | * |
| 1998 | 98 | 4,053 | 7 | 176 |
| 2000 | 97 | 4,205 | * | * |
| OR: | | | | |
| 1998 | 98 | 87 | ** | ** |
| SD: | | | | |
| 1997 | 86 | 886 | ** | ** |
| 1998 | 73 | 698 | * | * |
| 2000 | 93 | 619 | ** | ** |
| WA: | | | | |
| 1998 | 100 | 552 | * | * |

¹Data not available for all States for all years. ²Insufficient number of reports to publish data for fungicides and other chemicals. ³Amount applied excludes Bt (bacillus thuringiensis). *Insufficient number of reports to publish data. **No reports received for this pesticide class. Note: Planted acres are on page I-2.

NASS, Environmental, Economics, and Demographics Branch, (202) 720-6146.

Table 14-11.—Wheat: Fertilizer usage, 1997–2001¹

| State and Year | Percent treated and amount applied | | | | | |
|----------------|------------------------------------|----------------|--------------|----------------|--------------|----------------|
| | Nitrogen | | Phosphate | | Potash | |
| | Area applied | Pounds applied | Area applied | Pounds applied | Area applied | Pounds applied |
| | Percent | Millions | Percent | Millions | Percent | Millions |
| Winter. | | | | | | |
| AR:.. | | | | | | |
| 2000 | 92 | 110.1 | 28 | 12.3 | 28 | 16.0 |
| CA:.. | | | | | | |
| 1998 | * | * | * | * | * | * |
| CO:.. | | | | | | |
| 1997 | 68 | 69.0 | 39 | 18.7 | * | * |
| 1998 | 78 | 108.5 | 33 | 22.2 | 4 | 0.7 |
| 2000 | 87 | 85.2 | 14 | 5.6 | * | * |
| GA:.. | | | | | | |
| 1998 | 98 | 27.7 | 90 | 12.3 | 86 | 17.2 |
| ID:.. | | | | | | |
| 1997 | 98 | 105.4 | 62 | 19.4 | 11 | 4.3 |
| 1998 | 97 | 93.6 | 67 | 20.6 | 23 | 7.0 |
| 2000 | 90 | 75.5 | 54 | 12.1 | 13 | 2.7 |
| IL:.. | | | | | | |
| 1997 | 91 | 103.8 | 69 | 62.1 | 77 | 86.9 |
| 1998 | 98 | 119.9 | 82 | 78.5 | 70 | 94.7 |
| 2000 | 98 | 80.1 | 82 | 55.5 | 78 | 65.7 |
| IN:.. | | | | | | |
| 1999 | 97 | 46.3 | 91 | 31.6 | 90 | 39.0 |
| KS:.. | | | | | | |
| 1997 | 78 | 509.0 | 56 | 186.8 | 8 | 19.5 |
| 1998 | 92 | 596.7 | 74 | 248.3 | 13 | 50.7 |
| 2000 | 94 | 522.9 | 65 | 178.7 | 6 | 11.2 |
| KY:.. | | | | | | |
| 2000 | 80 | 52.0 | 62 | 25.9 | 60 | 29.2 |
| LA:.. | | | | | | |
| 1998 | 92 | 9.2 | 32 | 1.6 | 30 | 1.8 |
| MS:.. | | | | | | |
| 1998 | 100 | 22.2 | 14 | 1.4 | 14 | 1.7 |
| MO:.. | | | | | | |
| 1997 | 92 | 98.2 | 81 | 45.4 | 70 | 49.4 |
| 1998 | 98 | 138.4 | 86 | 51.1 | 86 | 74.9 |
| 2000 | 96 | 86.8 | 76 | 39.9 | 84 | 59.1 |
| MT:.. | | | | | | |
| 1997 | 95 | 64.5 | 78 | 31.4 | 23 | 4.3 |
| 1998 | 90 | 67.9 | 88 | 30.7 | 31 | 5.1 |
| 2000 | 82 | 74.2 | 77 | 34.0 | 43 | 8.2 |
| NE:.. | | | | | | |
| 1997 | 92 | 94.6 | 74 | 47.8 | * | * |
| 1998 | 85 | 69.9 | 59 | 25.3 | 12 | 1.0 |
| 2000 | 90 | 76.5 | 68 | 31.5 | * | * |
| NC:.. | | | | | | |
| 1998 | 91 | 63.9 | 76 | 24.1 | 84 | 53.8 |
| 2000 | 88 | 78.3 | 48 | 15.8 | 56 | 30.9 |
| OH:.. | | | | | | |
| 1997 | 100 | 93.1 | 92 | 63.7 | 98 | 87.6 |
| 1998 | 100 | 106.9 | 93 | 66.8 | 94 | 80.2 |
| 2000 | 94 | 107.0 | 81 | 64.1 | 82 | 74.0 |
| OK:.. | | | | | | |
| 1997 | 90 | 317.5 | 47 | 83.6 | 7 | 6.4 |
| 1998 | 95 | 381.0 | 64 | 130.8 | 15 | 10.7 |
| 2000 | 97 | 393.3 | 62 | 148.4 | 5 | 8.3 |
| OR:.. | | | | | | |
| 1997 | 100 | 75.3 | 15 | 4.7 | * | * |
| 1998 | 100 | 57.8 | 9 | 1.7 | 1 | 3 |
| 2000 | 99 | 46.1 | 11 | 1.8 | 7 | 1.4 |
| PA:.. | | | | | | |
| 1997 | 81 | 7.3 | 60 | 5.2 | 59 | 5.2 |
| SD:.. | | | | | | |
| 1997 | 78 | 38.7 | 58 | 15.3 | * | * |
| 1998 | 94 | 79.7 | 92 | 36.6 | * | * |
| 2000 | 91 | 60.8 | 61 | 26.6 | 12 | 1.3 |
| TX:.. | | | | | | |
| 1997 | 78 | 267.2 | 36 | 49.1 | 16 | 10.8 |
| 1998 | 75 | 337.2 | 50 | 111.7 | 22 | 24.6 |
| 2000 | 55 | 280.2 | 35 | 79.7 | 14 | 32.0 |
| WA:.. | | | | | | |
| 1997 | 98 | 145.4 | 34 | 16.5 | 12 | 7.6 |
| 1998 | 100 | 155.8 | 30 | 14.7 | 10 | 3.8 |
| 2000 | 100 | 111.7 | 30 | 10.2 | 6 | 1.3 |
| Durum. | | | | | | |
| ND:.. | | | | | | |
| 1997 | 95 | 170.9 | 77 | 48.7 | 8 | 4.1 |
| 1998 | 98 | 175.0 | 79 | 49.0 | 3 | 1.7 |
| 2000 | 86 | 173.8 | 66 | 47.6 | 5 | 2.1 |

See footnotes at end of table.

Table 14-11.—Wheat: Fertilizer usage, 1997–2001 ¹—Continued

| State and Year | Percent treated and amount applied | | | | | |
|----------------|------------------------------------|-----------------|----------------|-----------------|----------------|-----------------|
| | Nitrogen | | Phosphate | | Potash | |
| | Area applied | Pounds applied | Area applied | Pounds applied | Area applied | Pounds applied |
| | <i>Percent</i> | <i>Millions</i> | <i>Percent</i> | <i>Millions</i> | <i>Percent</i> | <i>Millions</i> |
| Other. | | | | | | |
| Spring: | | | | | | |
| ID:.. | | | | | | |
| 1998 | 96 | 59.4 | 83 | 17.9 | 33 | 2.9 |
| MN:.. | | | | | | |
| 1997 | 98 | 209.1 | 91 | 77.4 | 73 | 73.9 |
| 1998 | 100 | 166.5 | 97 | 64.5 | 64 | 10.3 |
| 2000 | 94 | 169.8 | 85 | 51.8 | 73 | 29.3 |
| MT:.. | | | | | | |
| 1997 | 79 | 153.5 | 66 | 68.2 | 15 | 10.2 |
| 1998 | 61 | 129.6 | 55 | 64.5 | 22 | 10.3 |
| 2000 | 90 | 167.6 | 84 | 75.5 | 36 | 15.6 |
| ND:.. | | | | | | |
| 1997 | 99 | 621.8 | 92 | 248.3 | 24 | 43.8 |
| 1998 | 97 | 472.8 | 87 | 166.8 | 20 | 9.0 |
| 2000 | 97 | 501.8 | 83 | 170.1 | 12 | 13.3 |
| SD:.. | | | | | | |
| 1997 | 90 | 140.2 | 70 | 61.6 | * | * |
| 1998 | 85 | 92.2 | 66 | 45.0 | 11 | 5.7 |
| 2000 | 95 | 98.1 | 83 | 36.7 | 12 | 2.8 |

¹ Data not available for all States for all years. * Insufficient number of reports to publish data. Note: Planted acres are on page I-2.

NASS, Environmental, Economics, and Demographics Branch, (202) 720–6146.

Table 14-12.—Fruits: Percent of acres receiving applications, for surveyed States, 2001 ¹

| Crop | Herbicide | Insecticide | Fungicide |
|--------------------------------|----------------|-------------|-----------|
| | <i>Percent</i> | | |
| Apples | 52 | 95 | 85 |
| Apricots | 24 | 79 | 74 |
| Avocados | 24 | 44 | * |
| Blackberries | 80 | 71 | 80 |
| Blueberries | 65 | 89 | 87 |
| Cherries, Sweet | 41 | 79 | 79 |
| Cherries, Tart | 62 | 99 | 99 |
| Dates | * | 18 | * |
| Figs | 50 | 11 | * |
| Grapefruit | 90 | 90 | 83 |
| Grapes, All | 65 | 60 | 84 |
| Grapes, Non bearing | 2 | 17 | 19 |
| Grapes, Raisin | 59 | 59 | 78 |
| Grapes, Table | 75 | 80 | 96 |
| Grapes, Wine | 65 | 58 | 87 |
| Kiwifruit | 28 | 19 | * |
| Lemons | 51 | 55 | 25 |
| Nectarines | 70 | 87 | 89 |
| Olives | 38 | 31 | 6 |
| Oranges - except Temples | 85 | 82 | 48 |
| Oranges - Temples | 93 | 98 | 66 |
| Peaches | 59 | 91 | 92 |
| Pears | 49 | 91 | 85 |
| Plums | 60 | 85 | 66 |
| Prunes | 34 | 58 | 36 |
| Raspberries | 89 | 81 | 94 |
| Tangelos | 79 | 86 | 71 |
| Tangerines | 80 | 78 | 62 |

¹ Refers to acres receiving one or more applications of a specific agricultural chemical. * Insufficient number of reports to publish data.

NASS, Environmental, Economics, and Demographics Branch, (202) 720–6146.

Table 14-13.—Vegetables: Percent of acres receiving applications, for surveyed States, 2000¹

| Crop | Herbicide | Insecticide | Fungicide |
|-----------------------------|-----------|-------------|-----------|
| | | | |
| Artichokes | 58 | 73 | * |
| Asparagus | 84 | 84 | 42 |
| Beans, Lima, Fresh | 94 | 38 | 2 |
| Beans, Lima, Processing ... | 53 | 71 | 7 |
| Beans, Snap, Fresh | 53 | 89 | 77 |
| Beans, Snap, Processing ... | 96 | 81 | 57 |
| Beets | 98 | † | * |
| Broccoli | 51 | 92 | 15 |
| Brussels Sprouts | * | 74 | 75 |
| Cabbage, Fresh | 64 | 96 | 60 |
| Cabbage, Kraut | 85 | 99 | 6 |
| Carrots, Fresh | 58 | 13 | 49 |
| Carrots, Processing | 77 | 54 | 65 |
| Cauliflower | 48 | 94 | 9 |
| Celery | 75 | 97 | 87 |
| Collards | 55 | 87 | 35 |
| Corn, Sweet, Fresh | 79 | 84 | 38 |
| Corn, Sweet, Processing ... | 90 | 73 | 22 |
| Cucumbers, Fresh | 31 | 75 | 79 |
| Cucumbers, Pickles | 85 | 40 | 45 |
| Eggplant | 41 | 89 | 81 |
| Garlic | 45 | 29 | 61 |
| Greens, Mustard | 40 | 86 | 52 |
| Greens, Turnip | 55 | 72 | 44 |
| Kale | 54 | 88 | 45 |
| Lettuce, Head | 57 | 92 | 54 |
| Lettuce, Other | 74 | 93 | 66 |
| Melons, Cantaloupe | 43 | 74 | 60 |
| Melons, Honeydew | 12 | 80 | 26 |
| Melons, Watermelon | 52 | 47 | 79 |
| Okra | 28 | 70 | 27 |
| Onions, Dry | 83 | 72 | 80 |
| Peas, Green, Processing ... | 94 | 53 | 5 |
| Peppers, Bell | 54 | 93 | 74 |
| Pumpkins | 57 | 60 | 59 |
| Radishes | 2 | 66 | 17 |
| Spinach, Fresh | 75 | 85 | 78 |
| Spinach, Processing | 38 | 86 | 44 |
| Squash | 38 | 72 | 60 |
| Strawberries | 39 | 81 | 84 |
| Tomatoes, Fresh | 63 | 87 | 86 |
| Tomatoes, Processing | 78 | 64 | 73 |

¹ Refers to acres receiving one or more applications of a specific agricultural chemical. * Insufficient number of reports to publish data.

NASS, Environmental, Economics, and Demographics Branch, (202) 720-6146.