

Appendix F - Table 2
Changes in Use of Pesticide Active Ingredients by Pest Control
Services Licensed in the Agriculture Category, 1991-1999
(Sorted by Magnitude of Change)

| Active Ingredient | 1991 Use (kg) | 1999 Use (kg) | Change from 1991 | Percent Change from 1991 |
|--------------------------------------|--------------------------|--------------------------|-----------------------------|---|
| 1,3-Dichloropropene | 6,711 | | - 6,711 | - 100% |
| Folpet | 2,798 | | - 2,798 | - 100% |
| Vernolate | 1,562 | | - 1,562 | - 100% |
| Dinoseb | 1,454 | | - 1,454 | - 100% |
| Methyl Isothiocyanate | 862 | | - 862 | - 100% |
| Dichlobenil | 766 | 16.4 | - 750 | - 98% |
| Tallow Fatty Acid | 669 | | - 669 | - 100% |
| Dazomet | 662 | | - 662 | - 100% |
| Dimethoate | 880 | 266 | - 614 | - 70% |
| Ferbam | 465 | | - 465 | - 100% |
| EPTC | 1,270 | 864 | - 407 | - 32% |
| Malathion | 336 | 17.0 | - 319 | - 95% |
| Parathion | 405 | 200 | - 205 | - 51% |
| Metolachlor | 2,700 | 2,515 | - 185 | - 7% |
| Dicamba | 656 | 527 | - 129 | - 20% |
| Azinphos-Methyl | 157 | 36.8 | - 120 | - 77% |
| Simazine | 105 | 18.1 | - 87.2 | - 83% |
| Lime Sulphur or Calcium Polysulphide | 149 | 63.1 | - 85.4 | - 57% |
| Kinoprene | 58.5 | 0.02 | - 58.5 | - 100% |
| Endosulfan | 92.0 | 35.8 | - 56.2 | - 61% |
| Amitrole | 55.0 | 0.003 | - 55.0 | - 100% |
| Disulfoton | 46.5 | | - 46.5 | - 100% |
| Copper Oxychloride | 418 | 373 | - 45.6 | - 11% |
| Iprodione | 43.0 | 7.52 | - 35.5 | - 83% |
| MCPB, Sodium Salt | 28.1 | | - 28.1 | - 100% |
| Sethoxydim | 50.6 | 23.5 | - 27.1 | - 54% |
| Diazinon | 143 | 122 | - 20.4 | - 14% |
| Metobromuron | 16.0 | | - 16.0 | - 100% |
| Prometryne | 84.0 | 68.6 | - 15.4 | - 18% |
| Triforine | 101 | 86.0 | - 14.7 | - 15% |
| Glyphosate, Isopropylamine | 1,719 | 1,706 | - 13.1 | - 1% |
| Propyzamide | 8.50 | | - 8.50 | - 100% |
| Oxyfluorfen | 10.7 | 2.96 | - 7.72 | - 72% |
| 2,4-DB Esters | 7.50 | 2.81 | - 4.69 | - 63% |

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| Carbofuran | 7.20 | 3.84 | - 3.36 | - 47% |
| O-Phenylphenol | 2.03 | | - 2.03 | - 100% |
| MCPA Potassium Salt or Sodium Salt | 1.88 | | - 1.88 | - 100% |
| O-Benzyl-P-Chlorophenol | 1.72 | | - 1.72 | - 100% |
| <i>Bacillus thuringiensis</i> Berliner ssp. <i>kurstaki</i> | 1.00 | | - 1.00 | - 100% |
| Dicofol | 1.00 | | - 1.00 | - 100% |
| Fluazifop-Butyl | 2.45 | 1.73 | - 0.73 | - 30% |
| P-Tert Amyl Phenol | 0.41 | | - 0.41 | - 100% |
| Soap (Insecticidal) | 0.25 | 0.22 | - 0.03 | - 12% |
| Dienochlor | 0.03 | | - 0.03 | - 100% |
| Fenbutatin Oxide | 0.03 | 0.03 | - | + 0% |
| Copper Sulphate | | 0.00003 | + 0.00003 | n/a |
| Myclobutanil | | 0.009 | + 0.009 | n/a |
| Azoxystrobin | | 0.01 | + 0.01 | n/a |
| Daminozide | | 0.02 | + 0.02 | n/a |
| Bendiocarb | | 0.06 | + 0.06 | n/a |
| Sulfotep | | 0.07 | + 0.07 | n/a |
| Oxine Benzoate | | 0.16 | + 0.16 | n/a |
| Rimsulfuron | | 0.18 | + 0.18 | n/a |
| Etridiazole | | 0.23 | + 0.23 | n/a |
| Deltamethrin | 0.66 | 0.95 | + 0.29 | + 44% |
| Nicotine | | 0.58 | + 0.58 | n/a |
| Methoxychlor | | 0.63 | + 0.63 | n/a |
| Chlormequat | | 0.72 | + 0.72 | n/a |
| Cyfluthrin | | 0.84 | + 0.84 | n/a |
| Cyhalothrin-Lambda | | 1.46 | + 1.46 | n/a |
| Clofentezine | | 1.60 | + 1.60 | n/a |
| Permethrin | 1.00 | 4.92 | + 3.92 | + 392% |
| Clopyralid | | 4.08 | + 4.08 | n/a |
| Hexazinone | | 6.00 | + 6.00 | n/a |
| Desmedipham | | 10.5 | + 10.5 | n/a |
| Phenmedipham | | 10.5 | + 10.5 | n/a |
| Methomyl | 6.88 | 17.6 | + 10.8 | + 156% |
| Benomyl | 72.4 | 83.9 | + 11.5 | + 16% |

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| Propiconazole | | 11.5 | + 11.5 | n/a |
| Pirimicarb | 0.005 | 12.2 | + 12.1 | ##### |
| Cypermethrin | | 13.9 | + 13.9 | n/a |
| Diclofop-Methyl | | 14.1 | + 14.1 | n/a |
| Glufosinate Ammonium | | 15.2 | + 15.2 | n/a |
| Pendimethalin | | 18.4 | + 18.4 | n/a |
| Trifluralin | 567 | 595 | + 27.9 | + 5% |
| Dimethomorph | | 30.1 | + 30.1 | n/a |
| Metalaxyl | 39.8 | 84.6 | + 44.8 | + 113% |
| Chlorpropham | | 47.3 | + 47.3 | n/a |
| Nicosulfuron | | 51.2 | + 51.2 | n/a |
| Vinclozolin | | 52.8 | + 52.8 | n/a |
| Mancozeb | 155 | 212 | + 56.7 | + 37% |
| Mecoprop, Potassium Salt | 4.88 | 70.1 | + 65.2 | + 1337% |
| Metribuzin | | 65.4 | + 65.4 | n/a |
| Tribasic Copper Sulphate | | 70.2 | + 70.2 | n/a |
| Naled | 7.78 | 78.5 | + 70.7 | + 909% |
| Oxydemeton-Methyl | 19.0 | 112 | + 93.1 | + 491% |
| Pyridate | 85.1 | 198 | + 113 | + 132% |
| Acephate | 3.75 | 117 | + 113 | + 3023% |
| Diquat | 39.4 | 155 | + 116 | + 294% |
| Fosetyl-Al | | 121 | + 121 | n/a |
| Methamidophos | 37.9 | 176 | + 138 | + 365% |
| Paraquat | 22.5 | 164 | + 141 | + 629% |
| MCPA Amine Salts | 68.0 | 210 | + 142 | + 209% |
| Carbaryl | 20.4 | 209 | + 189 | + 926% |
| Atrazine | 4,647 | 4,840 | + 193 | + 4% |
| Bromoxynil | 13.4 | 244 | + 230 | + 1718% |
| Chlorpyrifos | | 233 | + 233 | n/a |
| Octylphenoxypolyethoxyethanol | 28.0 | 264 | + 236 | + 844% |
| Captan | 358 | 597 | + 239 | + 67% |
| Propamocarb Hydrochloride | | 260 | + 260 | n/a |
| Napropamide | 46.0 | 316 | + 270 | + 587% |
| Bentazon | 195 | 483 | + 288 | + 147% |

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| Mecoprop, Amine Salts | 247 | 580 | + 334 | + 135% |
| 2,4-D Amine Salts | 371 | 757 | + 386 | + 104% |
| Glyphosate, Trimethylsulfonium Salt | | 392 | + 392 | n/a |
| Maleic Hydrazide | | 449 | + 449 | n/a |
| Cupric Hydroxide | | 471 | + 471 | n/a |
| Linuron | | 531 | + 531 | n/a |
| Mineral Oil (Insecticidal or Adjuvant) | | 624 | + 624 | n/a |
| Surfactant Blend | 153 | 1,097 | + 944 | + 617% |
| Chlorothalonil | | 1,124 | + 1,124 | n/a |
| Paraffin Base Mineral Oil (Adjuvant) | 887 | 2,035 | + 1,149 | + 130% |
| Nonylphenoxypolyethoxyethanol | 53.3 | 1,476 | + 1,422 | + 2667% |
| Chloropicrin | 1,116 | 3,039 | + 1,922 | + 172% |
| Methyl Bromide | 5,186 | 16,893 | + 11,707 | + 226% |
| Metam | 2,124 | 39,854 | + 37,730 | + 1776% |
| Total | 42,083 | 86,565 | + 44,482 | + 106% |
| Number of Active Ingredients | 77 | 97 | + 20 | + 26% |