Apples: Pennsylvania total utilized apple production in 1998 totaled 404 million pounds. A pple producers received 0.121 cents per pound in 1998. Values of utilized apple production in Pennsylvania during 1998 was $\$ 48.9$ million. The 1998 wildllife damage to apple production is estimated at $\$ 466,000$, about 1 percent of value of production. Producers spent approximately $\$ 275,000$ to prevent wild life damage to their apple crop in 1998. Nationally the most frequently reported wildlife causing damage to apple crop were starlings ( $16 \%$ ), deer ( $14 \%$ ), mice and voles ( $10 \%$ ), and robins (9\%). The most frequently reported methods used to prevent wildlife damage were pyrotechnics (21\%), flagging ( $15 \%$ ), repellents ( $15 \%$ ), frightening devices (14\%), and fencing (14\%).

G rapes: The total utilized grape production in 1998 totaled 54,000 tons. Grape producers received 267 dollars per ton in 1998. Value of utilized grape
production in Pennsylvania during 1998 was $\$ 14.4$ million. In 1998 wildlife damage to grape production is estimated at $\$ 138,000$, about 1 percent of value of production. Producers spent approximately $\$ 62,000$ to prevent wildlife damage to their grape crop in 1998. N ationally the most frequently reported wild life causing damage to grape crop were starlings (14\%), ground squirrels (9\%), blackbirds (8\%), deer (8\%), and coyotes (7\%). The most frequently reported methods used to prevent wildlife damage were fencing (24\%), flagging ( $18 \%$ ), pyrotechnics ( $18 \%$ ), frightening devices (13\%), and repellents (7\%).

The N ational Agricultural Statistics Service marked the first release of the U.S. fruit wildlife damage publication in 1999. The U.S. estimates covers 7 states, including California, Michigan, N ew J ersey, N ew Y ork, N orth Carolina, Pennsylvania, and W ashington. The wild life damage survey was funded by USDA, APHIS, W ildlife Services.

Pennsylvania \& Major States Wildlife Damage to Apples: Production Price, Value, Estimated, \& Expenditures 1998

| Price, Value, Estimated, \& Expenditures 1998 |  |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| State | Utilized Apple <br> Production | Apple Price <br> per Pound | Value of Utilized <br> Apple Production | Total Dollar Value <br> Lost from Wildlife <br> Damage | Total Expenditures <br> on Wildlife Damage <br> Prevention |  |
| California | $(000)$ | Dollars | (000) Dollars | (000) Dollars |  |  |
| Michigan | 800,000 | .166 | 133,150 | 3,257 | 404 |  |
| New York | $1,010,000$ | .087 | 81,300 | 1,396 | 576 |  |
| Pennsylvania | 404,000 | .112 | 113,590 | 1,619 | 846 |  |
| Washington | $5,900,000$ | .121 | 48,905 | 466 | 275 |  |
| Other States | $1,553,200$ | .152 | 613,100 | 4,166 | 1,133 |  |
| U. S. TOTAL | $\mathbf{1 0 , 5 9 7 , 2 0 0}$ | $\mathbf{1 1 6}$ | $\mathbf{2 3 6 , 3 3 5}$ | $\mathbf{2 , 6 0 0}$ | $\mathbf{7 8 0}$ |  |

PennsyIvania \& Major States Wildlife Damage to Grapes: Production Price, Value, Estimated, \& Expenditures 1998

| State | Utilized Grape Production | Grape Price per Ton | Value of Utilized Grape Production | Total Dollar Value Lost from Wildlife Damage | Total Expenditures on Wildlife Damage Prevention |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | (000) | Dollars | (000) Dollars |  | (000) Dollars |
| California | 5,065,000 | 448.00 | 2,269,910 | 19,725 | 4,767 |
| Michigan | 71,000 | 251.00 | 17,798 | 250 | 54 |
| New York | 125,000 | 305.00 | 38,146 | 1,143 | 254 |
| Pennsylvania | 54,000 | 267.00 | 14,404 | 138 | 62 |
| Washington | 222,000 | 482.00 | 107,004 | 1,460 | 195 |
| Other States | 55,005 | 819.00 | 45,044 | 419 | 99 |
| U. S. TOTAL | 5,592,005 | 446.00 | 2,492,306 | 23,135 | 5,431 |

