Crop Profile for Plums & Prunes in Oregon

Prepared: Feb., 2001

General Production Information

- Oregon is the second ranking U.S. producer of plums and prunes, but because California has so many acres, Oregon's share of the total is only 1.6%.
- Workers harvested an estimated 1,963 acres of plums and prunes in 1999 (5).
- Cost varies greatly depending on location. (For instance, irrigation needs are quite different between regions.)
- Of the plums grown in Oregon, Washington, Idaho, and Michigan, about half are processed. Growers in Eastern Oregon sell the prunes fresh in eastern markets; those in Western Oregon sell their crops dried or canned.

Production Regions

Eighteen Oregon counties grow reportable acres of prunes and plums. Polk County has the most acres, but Washington County produces the most pounds. Other counties with over 300 acres each are Douglas, Umatilla, and Yamhill. All except Umatilla are in western Oregon (3).

Fresh prunes grown in Umatilla County are included in market orders covering designated counties in Washington. Marketing orders authorize grade, size, maturity, markings, pack, and container regulations for the area (6).

Cultural Practices

Plums are the fruit of certain species of genus Prunus, family Rosaceae and are used fresh or dried to make prunes. Prunes are only made from sufficiently firm plums that are sweet enough to dry without fermenting. Italian prunes are Oregon’s dominant variety. Other varieties that growers export are the Moyers and Brooks (7-8).
Soil depth is the most important factor for determining the success of a plum orchard. Soil should be not less than 3.5 feet in depth and well drained (9).

**Insect Pests**

Seven stages of bud development dictate the initiation of various insect control treatments. Growers use spray oil, which is applied during the dormant or delayed dormant periods (10-12).

**Chemical controls**

In 1996, growers used the following insecticides on 2,380 acres of plums (13).

<table>
<thead>
<tr>
<th>Insecticide</th>
<th>Brand name</th>
<th>Area treated (%)</th>
<th>Number of applications</th>
<th>Pounds per acre per application</th>
<th>Pounds per acre per crop year</th>
<th>Total application (by 1,000 lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>chlorpyrifos</td>
<td>Lorsban</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td>0.40</td>
</tr>
<tr>
<td>endosulfan</td>
<td>Thiodan</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td>0.07</td>
</tr>
<tr>
<td>methyl parathion</td>
<td>Penncap</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td>0.03</td>
</tr>
<tr>
<td>oil</td>
<td>Supreme oil</td>
<td>24</td>
<td>1</td>
<td></td>
<td></td>
<td>26.90</td>
</tr>
</tbody>
</table>


**Cultural controls**

Orchardists can protect young, newly planted trees from sunburn by whitewashing, using paper trunk protectors, or shading the trunks with boards. Beetles are attracted to weakened, sunburned, or injured parts of the plum or prune tree trunk. They lay eggs in cracks on bark exposed to the sun (10).
Weeds

Growers control weeds in plum and prune orchards during site preparation, in new plantings, and in established plantings (14).

Chemical controls

In 1996, growers used the following herbicides on 2,380 acres of plums (13).

<table>
<thead>
<tr>
<th>Herbicide</th>
<th>Brand name</th>
<th>Area treated (%)</th>
<th>Number of applications</th>
<th>Pounds per acre per application</th>
<th>Pounds per acre per crop year</th>
<th>Total application (by 1,000 lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4-D</td>
<td>Dacamine</td>
<td>25</td>
<td>1</td>
<td></td>
<td></td>
<td>0.85</td>
</tr>
<tr>
<td>glyphosate</td>
<td>Roundup</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td>0.02</td>
</tr>
<tr>
<td>paraquat</td>
<td>Gramoxone</td>
<td>32</td>
<td>1</td>
<td></td>
<td></td>
<td>0.88</td>
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<tr>
<td>simazine</td>
<td>Princep</td>
<td>30</td>
<td>1</td>
<td></td>
<td></td>
<td>1.60</td>
</tr>
</tbody>
</table>

For more information about weed control in orchards, go to http://www.orst.edu/dept/hort/weeds/orchherb.htm (14).

Diseases

Brown rot and leaf spot are two diseases that infect Willamette Valley plum and prune orchards (11).

Sulfur is the most widely-used fungicide on Oregon plums and prunes (13).

Chemical controls

In 1996, growers used the following fungicides on 2,380 acres of plums (13).
<table>
<thead>
<tr>
<th>Fungicide</th>
<th>Brand name</th>
<th>Area treated (%)</th>
<th>Number of applications</th>
<th>Pounds per acre per application</th>
<th>Pounds per acre per crop year</th>
<th>Total application (by 1,000 lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>benomyl</td>
<td>Benlate</td>
<td>20</td>
<td>2</td>
<td></td>
<td></td>
<td>3.10</td>
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<tr>
<td>chlorothalonil</td>
<td>Bravo</td>
<td>83</td>
<td>1</td>
<td></td>
<td></td>
<td>2.30</td>
</tr>
<tr>
<td>copper hydroxide</td>
<td>Kocide</td>
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<td></td>
<td>13.20</td>
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<tr>
<td>iprodione</td>
<td>Rovral</td>
<td>49</td>
<td>1</td>
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<td></td>
<td>1.70</td>
</tr>
<tr>
<td>sulfur</td>
<td>Sulfur</td>
<td>90</td>
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<td></td>
<td>99.60</td>
</tr>
</tbody>
</table>


**Nematodes**

No information is available on plum or prune nematode infestations.

**Other**

Crop profiles for plums and prunes grown in California are available at http://pestdata.ncsu.edu/cropprofiles/start.html (15).

**Contacts**

Tom Darnell  
Umatilla County Extension  
P.O. Box E  
Milton-Freewater, OR 97862
References


2. 1999 Oregon County and State Agricultural Estimates; Special Report 790; Oregon State University Extension Service: Corvallis, OR, revised January 2000.


Acknowledgements

This crop profile was prepared by P. Thomson, W. Parrott, and J. Jenkins, Agricultural Chemistry Extension, Department of Environmental and Molecular Toxicology, Oregon State University, and reviewed by J. Olsen, Yamhill-Polk-Marion Country Extension, McMinnville, OR.

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