

Crop Profile for Cranberries in Oregon

General Production Information

- • Oregon is the fourth major producer of cranberries in the United States.
- Cranberries from Oregon account for 6.6% of the total 1998 U.S. crop.
- In 1998, about 2,200 acres were harvested in Oregon with a total estimated production of 355,000 barrels of berries.
- Production costs for Oregon cranberries were unavailable; however, for comparison, Washington State cranberry costs averaged \$3,000 per acre in 1995, and establishment costs averaged \$40,000 per acre.
- Growers send most Oregon cranberries to processing plants. Only a small amount is sold on the fresh market.

Production Regions

Most Oregon cranberries grow on the southern Oregon coast in Coos (1,580 acres) and Curry Counties (564 acres). Clatsop County on the northern Oregon coast has some very small acreages (49 acres) (5).

Cultural Practices

Cultural practices in Oregon are similar to those in Washington. For a detailed report, see the Washington cranberry profile (3).

Oregon growers water harvest approximately 98.5% of the cranberry crop (6).

The Cranberry Institute prepared a stewardship document outlining goals to protect and enhance natural resources, strengthen integrated pest management programs, continue grower education, support and conduct research on alternative practices, and pursue and obtain reduced risk registrations (7).

Insect Pests

The black vine weevil is one of the most destructive insects in Oregon, especially on dry harvested cranberries (3).

The cranberry girdler and blackheaded fireworm are other important insect pests in Oregon cranberries (6).

The Oregon cranberry has no mite pests (4).

Chemical controls:

Insecticides used on Oregon cranberries include various amounts of acephate (Orthene), azinphos-methyl (Guthion), carbaryl (Sevin), chlorpyrifos (Lorsban), diazinon, insecticidal soap, and cryolite bait (Kryocide). Growers use diazinon in the largest amounts (4, 5, 8).

Farmers also use small amounts of malathion (Cythion) according to one field representative (6).

For more details on insect control in Oregon cranberries, see the 1999 PNW Insect Control Handbook, pages 120 – 122. (Go to <http://eesc.orst.edu/agcomwebfile/edmat/> for ordering information.

Alternatives:

Cranberry researchers are using sprayable pheromones (which disrupt mating) and tebufenozide (Confirm, a growth regulator) for control of blackheaded fireworm. Tebufenozide is just now becoming available to growers (6).

Cultural controls:

Cultural controls include summer flooding and winter sanding for cranberry girdler and fall flooding for black vine weevil (6).

Biological controls:

Oregon State University scientists have attempted to control black vine weevil and cranberry girdler with nematodes, which worked well in trials. A few growers are using these nematodes which are available from a commercial source (9).

Post harvest:

Where black vine weevil infestations occur in spite of water harvest, growers sometimes apply a 2 to 4 week flood in late October or November for control (5).

Diseases

Chemical controls:

Oregon cranberry farmers apply these fungicides: chlorothalonil (Bravo), various copper compounds, mancozeb (Dithane), metalaxyl (Ridomil), and ferbam (Carbamate). They use chlorothalonil in the greatest amounts (8).

For more details on disease control in Oregon cranberries, see *An Online Guide To Plant Disease Control*, <http://pnwhandbooks.orst.edu/guide1998/index.htm> (13).

Nematodes

Plant parasitic nematodes have not been an economic problem in Oregon cranberries (6).

Weeds

A variety of troublesome weeds infest Oregon cranberry bogs: birdsfoot trefoil, asters, false lily-of-the-valley, violets, silverweed, rushes, sedges, white clover, grasses, willows, sheep sorrel, *Rubus* species, yellow loosestrife, and mosses. Moss is more of a problem in Oregon than in other production areas (5, 6, 10).

Chemical controls:

Cranberry growers use these herbicides to control weeds: 2,4-D, dichlobenil (Casoron), glyphosate (Roundup), napropamide (Devrinol), norflurazon (Evital), and sethoxydim (Poast). They use dichlobenil in the greatest amounts (4, 6, 10).

Copper sulfate is used to control moss (5)

For more details on weed control in Oregon cranberries, go to Cranberry Herbicides <http://www.orst.edu/dept/hort/weeds/cranberry.htm> (11).

Cultural controls:

Frequent hand weeding, especially for perennial weeds, is necessary. Farmers mow dikes and other areas surrounding cranberry beds to prevent weeds from spreading. They plant grass cover crops on dikes to reduce broadleaf weed populations. Starting with a clean field and avoiding reinfestation can prevent all major weed problems (12).

Post harvest:

Growers apply some of the above mentioned herbicides from postharvest to spring during the dormant season (5).

Contacts

Andy Broaddus
Ocean Spray Cranberries, Inc.
P.O. Box 570
Bandon, OR 97411
abroaddus@oceanspray.com

Jere Downing
Cranberry Institute
266 Main St.
Wareham, MA 02538
jdd@capecod.net

Glenn Fisher
Entomology
Oregon State University
Corvallis, OR 97331
fisherg@bcc.orst.edu

Art Poole
Coos County Extension
290 North Central
Coquille, OR 97423
Art.Poole@orst.edu

References

1. Crop Profile for Commodity in State. <http://pestdata.ncsu.edu/CropProfiles/instructions.html> (accessed Feb 1999).
2. 1998 Oregon County and State Agricultural Estimates; Special Report 790; Oregon State University Extension Service: Corvallis, OR, revised April 1999.
3. Crop Profile for Cranberries in Washington. http://pestdata.ncsu.edu/CropProfiles/Detail.CFM:FactSheets_RecordID=7 (accessed Feb 1999).
4. Downing, J. Cranberry Institute, Wareham, MA. Personal communication, May 6, 1999.
5. Poole, A. Coos County Extension, Coquille, OR. Personal communication, February 16, 1999.
6. Broaddus, A. Ocean Spray, Bandon, OR. Personal communication, May 6, 1999.
7. Downing, J. D. 1997, Cranberry Institute. <http://www.texagnt.net/pep/strategi/cranberry.htm> (April 1999), Pesticide Environmental Stewardship Program Strategy Document for Cranberries.
8. Mahr, S.E.R.; Moffitt, L.J. Biologic and Economic Assessment of Pesticide Usage on Cranberry; Report Number 2-CA-94; National Agricultural Pesticide Impact Assessment Program, U.S. Department of Agriculture: Washington, D.C. 1994.
9. Marks, J. Oregon State University Extension & Experiment Station Communications. <http://eesc.orst.edu/agcomwebfile/news/Fruitandnut/craneem.html> (accessed Feb 1999), Cranberry --'good guy' nematodes chase bad pests, News & Features.
10. Bridges, D.C., Ed. *Crop Losses Due to Weeds in the United States – 1992*; Weed Science Society of America: Champaign, 1992.
11. Cranberry Herbicides, OSU, WSU, & UI Extensions Cooperating, <http://www.orst.edu/dept/hort/weeds/blueberry.htm> (accessed August 1999).
12. Pacific Northwest Weed Control Handbook; Extension Services of Oregon State University, Washington State University, and the University of Idaho: Corvallis, OR, 1999

13. Guide To Plant Disease Control, Oregon State University <http://pnwhandbooks.orst.edu/guide1998/index.htm> (accessed July 1999).

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