

Vineyard Pest Management Resource Issue

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USDA Cooperative Extension Search Engine



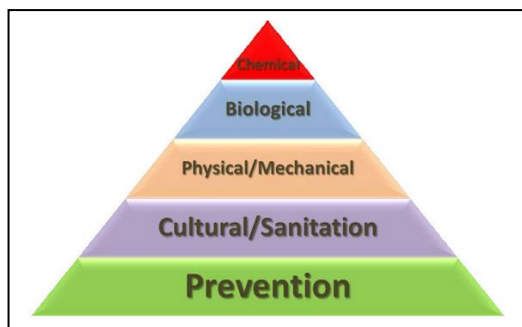
Pesticides and Pest Management

1. [2019-20 Midwest Fruit Pest Management Guide](#) 180 pp. ISU Extension.
Free PDF, \$15 hardcopy *****
2. [Midwest Small Fruit Pest Management Handbook](#), 210 pp. Purdue Extension
3. [2019 Michigan Fruit Management Guide](#), MSU Ext., approx. 275 pp. hardcopy only. \$30
4. [2019 New York and Pennsylvania Pest Management Guidelines for Grapes](#), Cornell & Penn State Extension, \$31 online or \$43 hardcopy
5. 2019 [Pest Management Guide for Horticulture & Forest Crops](#), 341 pp. Virginia Tech.
Free PDF, \$15 for hardcopy. (the grape section is 26 pages)
6. [2019 Pest Management Guide for Winegrapes in Oregon](#), 46 pp. Oregon State Univ.
7. [2019 Pest Management Guide for Winegrapes in Washington](#), 60 pp. WSU Extension,
Free PDF, \$9.50 hardcopy

8. [Developing an Effective Fungicide Spray Program for Wine Grapes](#), 13 pp. 2019, Ohio State University
9. [2016 Compendium of Herbicide Adjuvants, Purdue & Southern IL Universities](#), 76 pp.
10. *Pesticide Resistance Action Groups: ******
[Fungicides \(FRAC\)](#), [Herbicides: \(HRAC\)](#), [Insecticides \(IRAC\)](#).
11. [CDMS Pesticide Labels and MSDS sheets](#). (free account log-in required) *****
12. [Agrarian Pesticide Label Search](#)
13. [Pesticide Environmental Stewardship Organization](#)
14. [Example Conventional Grape Spray Guide Worksheets](#), 3 pp. Univ. of Kentucky,
15. [“TracGrape” Vineyard Spraying Records Excel Spreadsheet Software](#), \$60, Cornell Extension:
16. [VineSmith Pesticide 2019-20 Guides](#): (Now \$64, Best commercial vineyard pesticide guide posters on the market.) *****
17. [Targeted Pest Management: Phenological Growth Guide for Grapevines](#), 2 pp. ISU Ext.

Grape Pest Identification

1. [Grape IPM Guide for Minnesota Producers](#), 65 pp. University of Minnesota
2. [A Pocket Guide for Grape IPM Scouting Grapes in North Central & Eastern U.S.](#), \$20
3. *The Vineyard Advisor phone App for (disease, insect & weed rec’s from TX Tech & TX A& M):* [iTunes App Store \(iPhone\)](#) [Google Play \(Android\)](#) *****



4. [Grapes e-Xtension](#) (search engine) *****
5. [Cornell University’s Grape IPM Resources](#)
6. [North Central IPM Grape Guide](#), 107 pp. *****
7. [Grape IPM Plan for the Northeast U.S.](#) 92 pp.
8. [Weed Science Society of America](#)

9. [Iowa State University Weed Science](#)
10. [University of Missouri Weed ID guide](#)





11. [University of Missouri Weed ID phone App](#)
12. [Ohio State University list of weed ID Apps](#) *****
13. [Plant Snap](#) – Free plant photo ID App
14. [Ohio State University Grape Disease Fact Sheets](#)

15. [Compendium of Grape Diseases, Disorders, and Pests, Second Edition](#), 232 pp. \$139
[American Phytopathological Society](#) *****

16. [Grape Disease Identification](#), 48 pp. Syngenta

17. [Texas Grape Disease Handbook](#), Texas A & M



18. [Virginia Tech Grape Disease Updates](#) by Dr. [Mizuho Nita](#) *****

19. [American Entomology Society](#)

20. [BugGuide ID, Images & Information](#)

21. [Grape Insect Pests of the Home Garden](#), 7pp. University of Minnesota

22. [Grape Insects, Washington State University](#)

23. [Grape Pest Management page](#), Michigan State University

24. [Grape Insects](#), University of California IPM

Grapevine Trunk Disease

1. [Trunk Disease Project](#) (USDA, USDA-ARS & several Universities) *****

2. [Managing grapevine trunk diseases with respect to etiology and epidemiology: Current strategies and future prospects](#), 28 pp. 1/2018 D. Gramaje, J.R. Urbez-Torres & M.R. Sosnowski *****

3. [Trunk Diseases Management in Eastern Growing Regions](#), Virginia Tech University

4. [Grapevine Trunk Disease resources](#), Oregon State University

5. [2020-21 Rapid Ag: Determining Distribution, Impact, and Management Options for Grapevine Trunk Disease in Minnesota Vineyards](#), 4/2018 University of Minnesota

6. [Grapevine Trunk Diseases – A Review](#), 25 pp. 4/2015 International Organization of Vine & Wine.

7. [International Council of Grapevine Trunk Diseases, ICGTD](#)



Wildlife Control

1. [The Handbook: Prevention & Control of Wildlife Damage](#), Univ. of Nebraska-Lincoln *****
2. [Internet Center for Wildlife Damage Management](#) *****
3. [USDA-APHIS National Wildlife Research Center](#)
4. [Living with Wildlife in Illinois](#), University of Illinois
5. [Late Season Bird & Deer Control in Vineyards](#), eXtension
6. [ISU Extension & Outreach Problem Wildlife homepage](#)



Pesticide Drift Management

1. [FieldWatch / DriftWatch sensitive crop registry](#) *****
2. [Northern Grapes Project Vineyard Herbicide Drift webinar](#), 11-3-12
3. [Factors Affecting Pesticide Drift](#), 2 pp. ISU Extension
4. [Selecting the Correct Nozzle to Reduce Spray Drift](#), 4 pp.
5. [Watch out for GRAPES](#), Purdue Extension, 2 pp. *****
6. [Options for Dealing with a Pesticide Drift Incident](#), 2 pp. Purdue Extension,
7. [Reducing 2,4-D and Dicamba Drift Risk to Fruits, Vegetables and Landscape Plants](#), 1/2016 Ohio State Extension
8. [Using Buffers to Reduce Pesticide Drift & Wind Erosion](#), Pesticide Stewardship Org.
9. [Protecting Oklahoma's Vineyards from Phenoxy Drift](#), 2 pp. OK Dept. of Ag,
10. [Questions & Answers about Vineyard Injury from Herbicide Drift](#), 2 pp. KSU
11. [Avoiding Phenoxy Herbicide Damage to Grapes](#), 3 pp. Ed Hellman, TX A&M Extension
12. [Preventing Herbicide Drift and Injury to Grapes](#), 7 pp. Oregon State Extension
13. [Avoiding Injury to Grapes from Off Target Herbicide Exposure](#), 2 pp. Maryland Ext.
14. [Protecting Pesticide Sensitive Crops](#), 4 pp. Univ. of Nebraska Extension
15. [Phenoxy Herbicide, 2,4-D Injury Symptoms](#), Michigan State University Extension
16. [Leaf Index & 2,4-D Drift Severity Index](#), Washington State University *****



17. [Physical & Chemical Disorders of Grapes](#), Michigan State University Extension
18. [Herbicide Injury Diagnostic Key](#), University of Wisconsin Extension
19. [Response of Wine Grape Cultivars to Simulated Drift Rates of 2,4-D, Dicamba, and Glyphosate & 2,4-D or Dicamba Plus Glyphosate](#), 9 pp. 9/2016, Ohio State Ext.
20. [Practical Farmers of Iowa Pesticide Drift documents and videos](#) *****
21. [Herbicide Drift: What to Do](#), University of Missouri IPM

Pesticide Regulation & Safety

1. [National Pesticide Information Center – Safe Use of Pesticides](#), OR State University
2. [Searchable U.S. map of state pesticide agencies](#), National Pesticide Information Center
3. [Environmental Protection Agency](#)
4. [EPA Worker Protection Standard](#)
5. [EPA Worker Pesticide Safety for workers and handlers](#), EPA
6. [Worker Protection Standard Respiratory Protection Guide](#) 44 pp
7. [ISU Extension Worker Protection Standard \(WPS\) information](#). *****
8. [American Association of Pesticide Safety Educators](#)
9. [Pesticide Educational Resources Collaborative](#), PERC
10. [Web-based Training for Trainers of Agricultural Workers & Pesticide Handlers](#), \$35, PERC *****
11. [National Pesticide Applicator Certification Core Manual](#), 253 pp.
12. [U.S. National Agricultural Health Study](#)
13. [ISU Extension Pesticide Safety Program](#) *****
14. [Pesticides & Personal Protective Equipment](#), 36 pp. Purdue Extension



Sprayer Calibration & Operation

1. [Effective Vineyard Spraying, 2nd Edition or Effective Orchard Spraying](#) by Dr. Andrew Landers of Cornell University, \$60 each book plus shipping *****
2. Dr. Andrew Landers [“Pesticide Application Technology” homepage](#), Cornell Univ. *****

3. [Airblast 101 – A Handbook of Best Practices in Airblast Spraying](#), 207 pp. ****
Jason Deveau, Ontario Ministry of Agriculture. Free download.
4. [Airblast Sprayer Calibration Resources](#), Penn State University Extension
5. [Airblast Sprayer Calibration](#), 3 pp. University of Kentucky Extension
6. [Calibration of Boom Sprayers](#), 8 pp. Kansas State University Extension
7. [Small Hand Sprayer Calibration](#), 4 pp. Iowa State University Extension & Outreach ****
8. [Sprayer Calibration and Pesticide Mixing phone App](#), Clemson University Extension
9. [Sprayer Calibration Nozzle Selection phone APP](#) from Studio Noframe
10. **The Golden Formula for Sprayer Calibration** ****

$$\text{GPM} = \frac{\text{GPA} \times \text{MPH} \times \text{W}}{5,940}$$

Where: GMP = Gallons/Minute/Nozzle
 GPA = Gallons/Acre
 MPH = Miles/Hour
 W = Nozzle Spacing in Inches
 or = $\frac{\text{Row Spacing Inches}}{\text{\# Nozzles per Row}}$

$$\text{GPA} = \frac{5,940 \times \text{GMP}}{\text{MPH} \times \text{W}}$$

$$\text{MPH} = \frac{\text{Feet Traveled}}{\text{Seconds}} \times \frac{60}{88} \quad \text{or} \quad \frac{60}{\text{Seconds to travel } 88'}$$

Tank Mixing Pesticides

1. [Preparing Pesticide Tank Mixes](#), 2 pp. University of Illinois Extension
2. [Factors to Consider before Tank Mixing Pesticides](#), 3 pp. Oregon State Univ. Extension
3. [Tank Mixing Order and Jar Test](#), Sprayers 101 ****
4. [Impact of Water Quality on Pesticide Performance](#), 38 pp. Purdue Extension
5. [Water Temperature and Herbicide Performance](#), 8 pp. Purdue Extension
6. [Mix Tank phone App from Precision Laboratories](#) (mix order sheets, spray logs, nozzle selection, labels, mixing precautions & more) ****

Sprayer Cleanout

1. [Pesticide Sprayer Cleanout](#), 42 pp. ppt, University of Idaho
2. [Cleaning Pesticide Application Equipment](#), 4 pp. Univ. of Nebraska at Lincoln

3. [Cleaning Field Sprayers to Avoid Crop Injury](#), 6 pp. Univ. of Missouri
4. [An Easier Way to Clean Your Spray Tank](#), Sprayers 101
5. [Cleaning Spray Tanks](#), Oregon State University
6. [Cleaning Pesticide Application Equipment](#), 4 pp. Univ. of Nebraska at Lincoln
7. [Removing Herbicide Residues from Herbicide Application Equipment](#), 52 pp. Purdue Extension, 8/2015



Spray Nozzle Companies & Catalogs

1. [Delavan](#)
2. [Fimco Spray Tips](#)
3. [Greenleaf Technologies](#)
4. [Hypro Spray Nozzles](#)
5. [John Deere Spray Nozzles](#)
6. [Lechler](#)
7. [Spraying Systems Company](#)
8. [TeeJet Technologies](#)



Sustainable Viticulture

1. [Sustainable Agriculture Research Extension \(SARE\)](#)
2. [USDA Sustainable Agriculture](#)
3. California, [Lodi Rules for Sustainable Winegrowers](#)
4. [California Sustainable Grape Growing Alliance](#)
5. [Long Island Sustainable Winegrowing \(LISW\)](#)
6. New York, Cornell University - [Vine Balance workbook](#) *****
7. [Ontario Sustainable Viticulture](#)
8. [Oregon Live, Sustainable Winegrowers](#)
9. Oregon, [Salmon Safe](#)
10. [Sustainability in Practice \(SIP\)](#)
11. Washington Association of Wine Grape Growers: [Winery Wise](#) & [Vine Wise](#)
12. Washington State University – [Juice Grape Sustainability Report Card](#), \$20



Organic Viticulture

1. [Washington State University Organic Viticulture Resources](#)
2. [ATTRA has an excellent organic grape production guide](#), 44 pp. \$3.95 digital, \$6.95 print copy
3. [Organic Risk Mgt. Crops Manual](#), Univ. of MN
4. [Organic Transition: A Business Planner for Farmers, Ranchers & Food Entrepreneurs](#), 180 pp, 2017 SARE
5. [Sources of Organic Fertilizers & Amendments](#), ATTRA
6. [Whole-farm Impact of Converting Conventionally Managed Eastern Vineyards to Organic Management Practices](#), 1990 to 1994 SARE.org research report
7. [National Organic Materials Review Institute \(OMRI\)](#) *****
8. [National Organic Program USDA homepage](#) *****
9. [USDA NRCS organic resources](#) (Includes info on EQUIP Organic cost share program)
10. [USDA National Organic Farming Handbook](#), 43 pp. *****
11. [Iowa Department of Ag Organic Certification Program](#)
12. [ISU Organic Agriculture Extension Program](#)
13. Commercial Book: [The Grape Grower – A Guide to Organic Viticulture](#) by Lon Rombough”, 290 pp. \$41 plus shipping *****
14. [Organic ePrints – International Organic Farming Search Portal](#). (put “Viticulture” in search box)
15. [Organic Winegrowing Manual](#), 192 pp. 2011 McGourty, Ohmart & Chaney - UC Davis, \$35
16. [Organic Farming resources](#) at Cornell University
17. [Midwest Organic & Sustainable Education Service \(MOSES\)](#) *****
18. [Organic Fruit Growers Association](#)
19. [Rodale Institute](#)
20. [Weed Control in Organic Grape Production](#), 34 pp, North Carolina State University
21. [2013 Production Guide for Organic Grapes](#), Double A Vineyards
22. [Organic Grape & IPM Production Guide](#), 44 pp. Cornell University Extension *****

23. [Organic Agriculture Resources](#) from Michigan State University

Biodynamic Viticulture

1. [Demeter Biodynamic Certification](#) *****
2. [Biodynamic Association](#)
3. [Earth Legacy Organization](#) (source of Biodynamic preparations)
4. [Michael Fields Agricultural Institute](#) *****
5. [Josephine Porter Biodynamic Preparations](#)
6. [Sample Costs to Produce Biodynamic Wine Grapes](#), 29 pp. 2016, UC Davis Extension



Weather

1. [The American Meteorology Society](#)
2. [The National Weather Service](#)
3. [Interactive Map of all U.S. State Climatologists](#)
4. [ISU Environmental Mesonet](#), Iowa State University
[ISU Viticulture Weather Station Summaries](#)
5. [Midwest Climate Watch](#), University of Illinois *****
6. Midwest Regional Climate Center – info by state - University of Illinois
[Illinois](#) • [Indiana](#) • [Iowa](#) • [Kansas](#) • [Kentucky](#) • [Michigan](#) • [Minnesota](#) • [Missouri](#)
• [North Dakota](#) • [Ohio](#) • [Oklahoma](#) • [South Dakota](#) [Wisconsin](#)
7. [Network for Environmental & Weather Applications \(NEWA\)](#) – Cornell University
(CT, MA, MT, MN, NH, NJ, NY, NC, OH, PA, VT, VA, WV, WI)
8. [RFD TV Weather Resources](#)
9. [The Weather Underground](#)
[U.S. Frost/Freeze Outlook Maps](#)
10. [The Weather Channel](#)
[U.S. Precipitation Forecast Map](#)
11. [USA Today Weather](#)
12. [USPest.org](#), Oregon State University



- 13. [U.S. Growing Degree Day Calculator by region or state](#), Oregon State University
- 14. [U.S. Drought Monitor](#), University of Nebraska at Lincoln
- 15. [USDA National Phenology Network](#)

16. Top rated FREE weather Apps:	<u>1-5 rating</u>		<u>1-5 rating</u>
1Weather	4.6	The Weather Channel	4.4
Weather Underground	4.5	AccuWeather	4.4
The Weather Bug	4.5	Yahoo Weather	4.3



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