Will Your Pickers Need Pesticide Safety Training? Good Chance!

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The original Worker Protection Standard (WPS) was first published in 1992 and first implemented in 1995. The WPS applies whenever a pesticide is used in the production of agricultural plants that has an "Agricultural Use Requirements" section on the product label. The rule protects primarily workers (people employed to perform work activities related to the production of agricultural plants) and pesticide handlers (people employed to mix, load or apply pesticides for use on agricultural establishments in the production of agricultural plants).

The new 2015 revised WPS has added new revisions to this regulation. These new revisions are now completely in effect.
summary of these new revisions compared to the old WPS can be found [HERE].

One key provision of the new 2015 WPS requires that "Workers must be trained before they work in an area where a pesticide has been used or a restricted-entry interval has been in effect in the past 30 days". From page 1, [EPA WPS Comparison Chart]

An “Agricultural worker is any person, including a self-employed person, who is employed for a salary or wages (financial compensation) and who is performing activities relating to the production of agricultural plants on an agricultural establishment.” From page 240, [National WPS: Manual for Trainers]

How to comply to this new regulation has many vineyards who “hire” grape pickers worried. **One option** is to not hire workers, but instead not provide your pickers any compensation and instead have them pay you to pick grapes. This is becoming a common practice among Iowa wineries who have people pay to pick grapes and then provide a meal, some wine and entertainment afterward. The legal interpretation of this option may be questionable. 😊

**Option #2** would be to hire immediate family members to pick your grapes. Immediate family members are exempt from many of the WSP requirements. The WPS has a wide interpretation of who immediate family members are: “Immediate family — Is limited to the spouse, parents, stepparents, foster parents, father-in-law, mother-in-law, children, stepchildren, foster children, sons-in-law, daughters-in-law, grandparents, grandchildren, brothers, sisters, brothers-in-law, sisters-in-law, aunts, uncles, nieces, nephews, and first cousins. “First cousin” means the child of a parent’s sibling, i.e., the child of an aunt or uncle.” From page 246, [National WPS: Manual for Trainers]

**Option #3** would be to hire people who have a certified pesticide applicator license to pick your grapes. Licensed certified pesticide applicators do not require WPS worker training.

**Option #4** would be to provide WPS worker training to your grape pickers. To conduct safety training, you must be a certified applicator of restricted use pesticides, have completed a Train-the-Trainer program approved by EPA, or be a Department of Agriculture designated trainer. [The Pesticide Safety Education Program (PSEP)] at Iowa State University has a FREE EPA approved online Train-the-Trainer course one can take to be certified as a trainer.

A FREE EPA approved online **Worker training video** presentation is available to be used by certified WPS trainers to train workers. To train workers, slides 1 through 39 of the PowerPoint must be presented (first 21 minutes of narrated video). Records for worker training are required to be retained for 2 years.

Complete information about the EPA WPS can be found [HERE]:

**Agriculture Labor Laws:**

1. [Center for Agriculture Law & Taxation] - Iowa State University
2. [Human Resources publications] – ISU Ag Decision Maker
3. [National Agricultural Law Center] – University of Arkansas
4. [Federal Laws That Impact Agricultural Employment and Seasonal Labor], 2017
Cold Storage:

1. Storage Conditions: Fruit & Vegetables, University of Maine
2. Low Cost Cold Room Using Coolbot for Refrigeration, 2012, 26 slides Univ. of KY
3. Coolbot – Store it Cold
6. Small Scale Cold Rooms for Perishable Commodities, 11 pp. UC Davis
7. Low Cost Cold Storage Room for Market Growers, 4 pp. University of Kentucky
8. Energy-Efficient Refrigeration for Farms, 3-23-12, eXtension
9. Cooling & Storing Grapes After Harvest, Semco

Food Safety:

1. Food Safety Program – Iowa State University
2. North Central Center for FSMA Training, Extension & Technical Assistance
3. FDA Food Safety & Modernization Act – Food & Drug Administration
4. Winery FSMA Flow Chart – Cornell University
5. The ABC’s of the FSMA – Food Safety Modernization Act for Wineries, 11-12-13, 57:18 min. & slides, Northern Grape Project
6. How the FSMA will Impact the Wine Industry, 2-2-17 Wine & Vines
7. Helping Wineries Understand FSMA, 3-30-18 Denise Gardener Winemaking

Grape Berry Sampling:

1. Collection Berry Samples to Assess Grape Maturity, eXtension
2. Determining Grape Maturity & Fruit Sampling, 6 pp. Ohio State University
3. How to Grape Ripeness Before Harvest, 9 pp. Texas A & M
4. Evaluating Grape Samples for Ripeness, University of Maryland
6. 5 Minute Wine School Vineyard Sampling, 9-15-11 3:40 min. Cornell University
7. Evaluating Cold Hardy Winegrape Maturity, 4 pp. Univ. of Wisconsin Extension

Grape Purchase / Sales Contracts:

1. 8 Keys to a Better Winegrape Grower Contract, 5-22-13 Western Farm Press
2. Grape Purchase Agreements, 21 pp. 10-1-08 Dickenson, Peatman & Fogarty
3. Contracts between Wineries & Growers, 9-7-12 eXtension
8. *Grape Purchase Agreement*, 1 pp CAVE
11. *8 example contracts & 1 Sales memo*, University of Kentucky

**Grapes Buy or Sell Classifieds:**

1. FREE U.S. Wide *Grape Connect*
2. *Illinois Grape Growers & Vintners Association Classifieds*
3. *Iowa Wine Growers Association Classifieds*
4. *Western Iowa Grape Growers Association Classifieds*
5. *Michigan Wines Classifieds*
6. *Minnesota Grape Growers Association Classifieds*
7. *Ohio State University Buckeye Appellation Grape Exchange*
8. *Wisconsin Grape Growers Association Grape Exchange*

**Harvest Preparations:**

1. *Preparations for Harvest Considerations in the Winery*, Penn State Wine & Grapes U
2. *Harvest Preparation in the Winery* – ISU Midwest Grape & Wine Industry Institute
3. *Post Harvest Fruit Handling*, June 2017 14 slide ppt Texas A & M
4. *Monitoring Ripening for Harvest & Wine Making Decisions*, 17 slide PPT University of Maryland presentation at the 2016 Missouri Grape & Wine Institute

**Late Season Grape Disease Control:**

1. *Is Late Season Disease Control Needed for Grapes*, 7-24-12 Michigan State University
2. *Late Season Disease Control Options for Grapes to Minimize Fermentation Problems*, 18 PPT slides Virginia Tech University
3. *Late Season Disease Management*, 7-28-2015 Virginia Tech University
4. *Late Season Disease Management*, 9-4-15 Penn State University
5. *Sour Rot of Grapes*, 2-18-14 eXtension
8. *Botrytis Bunch Rot (Gray Mold) of Grapes*, 10-3-13 eXtension
9. *Bitter Rot of Grapes*, 10-3-13 eXtension

**Mechanical Grape Harvesting:**

1. *Introduction to Mechanical Harvesting of Wine Grapes*, 10-22-12 eXtension
2. *Transition to Mechanical Harvest*, 8-17-17 38 slide PPT UC-Davis Viticulture
4. *Is manual harvest really better than mechanical harvest? No!*, 6-9-16, BK Wine
5. *Are Hand-Picked Grapes Better Than Machine-Harvested?*, 7-6-17 Wine Enthusiast

**Pesticide Preharvest and Re-entry Intervals for Small Fruit & Tree Fruit:**

2. VineSmith Vineyard Pesticide Information Charts
3. CDMS Label Database

**Vineyard Bird Control:**

1. *Late Season Bird and Deer Control in Vineyards*, eXtension
2. *Controlling Birds on Fruit Crops*, Penn State University
3. *Bird Management in Vineyards*, 22 pp. PPT Penn State University
4. Laser Bird Control – The Bird Contrl Group
5. *Prevention & Control of Wildlife Damage*, University of Nebraska at Lincoln
8. Bird Control Products at Spec Trellising
10. NetterGetter
11. Avian Control (liquid spray)
12. Peregrine Hawk Kites
13. Inflatable Air Dancers Scar Off Birds, 2-28-14 Fruit Grower News
14. Flock Free Spining reflector ($65 at Home Depot)
15. Bird Control Pro
16. Bird B Gone
17. Bird-X
18. Bird Gard Electronic Sound units

**Vineyard Harvest Season Insect Pests:**

2. *Late Season Insect Management*, Penn State Wine & Grapes U
3. Brown Marmarated Stink Bug homepage, Northeastern IPM Center
5. 25 Ways to get Rid of Fruit Flies – Flies Away
6. Multicolored Asian Lady Beetles, eXtension
7. Multicolored Asian Lady Beetles Factsheet, 12 pp. Ohio State University
8. Spotted Lanternfly on Grapes & Tree Fruit, Penn State University
9. Spotted Wing Drosophila Pest Alert – University of Minnesota
11. Spotted Wing Drosophila homepage – University of Wisconsin
13. Integrated Pest Management of Spotted Wing Drosophila in North Dakota, 8 pp. NDSU
14. Wasp & Bee Management on Grapes, 49 pp. PPT – Cornell University

Vineyard Yield Estimates:

1. Predicting Harvest Yield in Juice and Wine Grape Vineyards, 12 pp. Michigan State University
2. Crop Estimation of Grapes, 16 pp. Ohio State University
5. Grape Yield Estimation form, 2 pp. Iowa State University
6. Crop Estimation in Vineyards, 6 pp, University of Kentucky
8. Crop Estimation, 7-6-17, 7:13 min video, Terry Bates – Cornell University

Wine Labs, Supplies & Ingredients:

1. ATP Group – US
2. BSG Wine - US
3. Central Industrial Supplies – WA
4. Eastern Wine Labs - NJ
5. ETS Labs – CA
6. Gusmer Enterprises - US
7. Lab Services - ISU Midwest Grape & Wine Industry Institute - IA
8. Laffort – CA
9. Lallemond - World
10. Midwest Supplies – MN
11. Northern Brewer – MN
12. Presque Isle Wine Cellars- PA
13. Scott Laboratories – CA
14. WyEast - OR

Midwest Enology Educational Institutions:

1. Midwest Grape & Wine Industry Institute, Iowa State University
2. Grape & Wine Institute, University of Missouri at Columbia
3. Fermentation Science Institute, Southern Illinois University
4. Purdue Winegrape Team, Purdue University
5. The Winery at Kirkwood, Kirkwood Community College
6. VESTA Partner Institutions
7. Fermentation Science, Wayne State College
8. Wine & Viticulture, Lake Michigan College
9. Fermentation Science Program, University of Wisconsin

Midwest University Enology Specialists:

1. Jill Blume, Purdue University
2. Christian Butzke, Purdue University
3. Drew Horton, University of Minnesota
4. Misha Kwasniewski, Univ. of MO Grape & Wine Institute
5. Matt McCarroll, Southern Illinois University
6. Stephen Menke, Colorado State University
7. Jennie Savits, ISU Midwest Grape & Wine Industry Institute
8. Nick Smith, UWEX: nsmith35@wisc.edu or ph: 608-890-3397
9. Todd Steiner, Ohio State University

Wine Making:

1. Wine Making, ISU Midwest Grape & Wine Industry Institute
2. Setting up a Winery for Basic Wine & Must Analysis – Ohio State University
4. Online Wine Making Calculators, FermCalc
5. Online Wine Making Calculators, VinoEnology
6. SO2 Mgt in the Winery, 5-8-18, 1:05 hr. video Northern Grapes Project
8. Are you feeding your yeast? The importance of YAN in healthy fermentation, 2-11-14, 59:52 min. & slides, Northern Grapes Project
9. Managing Sour Rotted Fruit in the Cellar, Penn State University
11. Building the Perfect Body: Tannin Strategies for Red Hybrid Wines, 3-10-15, 1:10 hr video and slides, Northern Grape Project

Winery Sanitation:

2. Importance of Cleaning and Sanitation in the Winery, ISU Midwest Grape & Wine Industry Institute
3. Introduction to Winery Sanitation: Options & Applications, 6-12-12 1:00 hr. video Northern Grapes Project.
4. Making Cleaning & Sanitation Practical for a Small Commercial Winery, 10-21-16 Penn State University

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