

# 19th Annual Sonoma County Youth Viticulture Challenge Practice Questions, 2024

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- The first 4 questions in each of the 13 categories are for the "9 and under" age group.
- The 1st half of the questions in each of the 13 categories are for the 9-10-11 age group.

For questions about the Viticulture Challenge, please contact Mia Stornetta at 707-385-6735 or brookeparsons55@gmail.com

\*Questions updated 12/28/23 with data from county crop reports, USDA Census data, TTB data, and more.

## **I. Sonoma County**

1. Q: In what year was the first commercial winery opened in Sonoma County?

A: 1857

2. Q: What is the name of Sonoma County's first commercial winery?

A: Buena Vista

3.Q: When were the first commercial vineyards planted in Sonoma County?

A: The early 1800's

4. Q: How many red varietals are grown in Sonoma County?

A: Over 45

5. Q: How many wine white varieties are grown in Sonoma County?

A: Over 35

6. Q: How many American Viticultural Areas (AVA's) are in Sonoma County?

A: 19. We now have three AVAs that span county lines, Carneros, Petaluma Gap and Pine Mountain-Cloverdale Peak. The newest AVA is Sonoma West Coast which was added in 2022.

7. Q: Name 5 Sonoma County AVAs

A: Alexander Valley, Bennett Valley, Chalk Hill, Dry Creek Valley, Fort Ross-Seaview, Fountaingrove, Green Valley, Knights Valley, Los Carneros, Moon Mountain, Northern Sonoma, Petaluma Gap, Pine Mountain-Cloverdale Peak, Rockpile, Russian River Valley, Sonoma Coast, Sonoma Mountain, Sonoma West Coast, and Sonoma Valley.

8. Q: Chardonnay is the most widely planted variety in Sonoma County. As of 2021, how many total acres bearing and non-bearing of Chardonnay are planted?

A: 15,501

9. Q: Pinot Noir is the second most widely planted grape in Sonoma County. How many total acres bearing and non-bearing are planted?

A: 12,872 acres

10. Q: What is the total number of acres of Sonoma County?

A: 1,132,000 acres

11.Q: How many acres in Sonoma County are in agriculture?

A: 567,284 acres or 50% of total County acreage

12. Q: According to the 2023 Census, what is the population of Sonoma County as of 2022?

A: Approximately 482,650

13. Q: How many wine producers and blenders are in Sonoma County?

A: 995 Wine producers and blenders (TTB website August 2021)

14. Q: How many vineyard owners are in Sonoma County?

A: More than 1,800 (Sonoma County Winegrowers 2019 Sustainability Report)

15. Q: What is the total economic impact of the wine community to Sonoma County?

A: \$13.4 Billion dollars

16. Q: What percentage of Sonoma County jobs are in the wine industry?

A: 25%, or 1 in 4 Sonoma County jobs.

17. Q: According to the 2022 Crop Report, what is the largest cash crop in Sonoma County?

A: Wine grapes

18. Q: What is the number of bearing vineyard acres (2022) in Sonoma County?

A: 57,010 acres

19. Q: How many square feet are in one acre?

A: 43,560 square feet

20. Q: What does AVA stand for?

A: American Viticultural Area (also referred to as an appellation)

21. Q: Why are AVA's important to Vineyards and Wineries?

A: AVA's give consumers an idea of where the grapes/wines come from and allows those wineries (and vineyards) to develop an identity to help define their region

22. Q: Which viticulture area covers the most acreage in Sonoma County?

A: Sonoma Coast

23. Q: How much of Sonoma county is still considered to be forested and woodland?

A: Approximately 50%

## **II. Heard It Through The Grapevine**

24. Q: Are "Table Grapes" grown in Sonoma County?

A: Yes

25. Q: What were the total tons of wine grapes produced in Sonoma County in 2020?

A: 148,085 tons.

26. Q: What is a Grape?

A: A grape is the fruit that is produced (in clusters) by a grapevine

27. Q: Name 5 wine grape varieties grown in Sonoma County.

A: Answers vary

28. Q: Name five varieties of Table Grapes grown in Sonoma County.

A: Autumn Royal, Red Globe, Ruby Seedless, Flame Seedless, Crimson Seedless, Thompson Seedless.

29. Q: What is a 'Variety'?

A: A variety is a specific type of grape such as Pinot Noir or Chardonnay. Example: Fuji and Granny Smith are very different but they are both varieties of apples

30. Q: What were the top 5 wine grape varieties in order of production tonnage in Sonoma County in 2022?

A: #1 = Chardonnay, #2 = Pinot Noir #3 = Cabernet Sauvignon, #4 = Sauvignon Blanc, #5 = Zinfandel

31. Q: What are the top 5 wine grape varieties for dollar value in 2022?

A: #1 = Pinot Noir, #2 = Chardonnay, #3 = Cabernet Sauvignon, #4 = Zinfandel, #5 = Sauvignon Blanc

32. Q: What is the total value (in dollars) of the wine grape crop in Sonoma County 2022?

A: \$547,709,400.

33. Q: Why are varieties important to wineries?

A: The winery needs to know what the variety is so they can put it on the label

34. Q: Why are varieties important to list on the label?

A: They give consumers an idea of what's inside the bottle. Rather than just Red or White wine, they are able to select from varieties that they are familiar with or want to try.

35. Q: Why are varieties important to growers?

A: The grower needs to select a variety that is appropriate for their climate and site and they also need to make sure that there is a market for that variety before they plant.

36. Q: What is a Clone?

A: A clone (or selection) is a vine that's a genetic variant from the original variety. They are usually grown from a cutting that was taken from the 'mother vine'

37. Q: What is a Mother Vine?

A: A vine that has been chosen to use to make cuttings - This may be because of the mother vine's hardiness to frost, drought, exceptional fruit or other desirable characteristics, and ideally it will be free of viruses or other diseases.

38. Q: How are clones created?

A: Cuttings are made from the mother vine and sent to U.C. Davis where they are analyzed. A new clone is only created after the material is proven to be genetically different to other known varieties/clones. The genetic variation occurs through natural mutation.

39. Q: Why are Clones important to growers?

A: Some clones may be better suited to the climate or the conditions in the field. Clones may also have an effect on crop yield.

40. Q: Why are Clones important to wineries?

A: Different clones may have different flavors

### **III. Red, White and Green**

41. Q: Bubbly wine made and grown in California is called?

A: Sparkling Wine

42. Q: According to the Sonoma County 2022 Crop Report, Muscat Blanc has the fewest acres planted. How many acres?

A: 17 acres

43. Q: Because Pinot Noir is an early leafing variety, what is it susceptible to?

A: Spring frosts

44. Q: What grape gets its name from the powder- like dusty down on the leaves?

A: Pinot Meunier. Meunier is the French word for "miller". Millers are covered in flour.

45. Q: What are the primary red and white grape varieties of the Russian

River Valley?

A: Pinot Noir (red grape) and Chardonnay (white grape)

46. Q: Name a grape variety used to make raisins.

A: Thompson Seedless, Sultana, Perlette, answers vary.

#### **IV. The Dirt On Grape Growing**

47. Q: What are the 3 components of soil?

A: Sand, Silt and Clay

48. Q: What is the ideal soil pH for growing grapes?

A: 6.5 (grapes like slightly acid soil)

49. Q: What part of the grapevine takes up water and nutrients and can store nutrients over the winter?

A: The roots

50. True or False. Sonoma County has more soil types than all of France?

A: True

51. Q: What are 4 tasks that may need to be completed before planting a vineyard?

A: Ripping, disking, rolling, and leveling

52. Q: A soil sample should include how many core samples?

A: 15-20 (Per Acre)

53. Q: How deep in the soil is a normal core sample taken?

A: 12-18"

54. Q: How is soil created?

A: Parent material (rock) is broken down into smaller particles to create soil

55. Q: What is another name for the "A" Horizon of the Soil Profile?

A: Topsoil

56. Q: What does soil structure refer to?

A: The cementation of sand, silt, and clay particles to form aggregates or soil peds.

57. Q: Which soil particle is smooth and powdery when dry?

A: Silt

58. Q: What is a hardpan?

A: Compressed layers of soil that exclude air and water and are impenetrable by roots.

59. Q: What can aggregates help with?

A: Erosion, root penetration, and water absorption

60. Q: Large pore spaces that hold air in the soil provide what?

A: Aeration

61. Q: What determines Soil texture?

A: Particle sizes in the soil

62. Q: What do small pores in the soil retain?

A: Water

63. Q: Soil pore spaces are occupied by what?

A: Water and air

64. Q: Soils with a large % of this soil particle (the largest) have the best drainage. What is it?

A: Sand

65. Q: Soil stability refers to what?

A: The resistance to erosion and slippage.

66. Q: What small soil particle holds nutrients well, but does not let air in, or allow water to easily drain through it?

A: Clay

67. Q: True or False? Closer plantings will make up for some crop loss on low fertility sites.

A: True

68. Q: What can help you decide what fertilizers to use?

A: Soil samples and analysis

69. Q: What is the binding agent that holds soil particles together?

A: Organic matter

70. Q: How is organic matter produced?

A: The slow decomposition of plant and animal matter.

71. Q: Name three common mistakes growers make when trying to plant and grow a vineyard?

A: Poor site selection, inappropriate variety, planting mistakes, trellising mistakes, inadequate pest control and no contract to sell the fruit.

72. Q: What are a few of the forces that cause rock to become soil?

A: Wind, Rain, Hail, Snow, Freezing and Thawing, Human Intervention, Waves, Erosion, Chemicals, Acid Rain, Glaciers, etc.

73. Q: What are the different layers of soil called?

A: Soil Horizons

74. Q: Which layer of soil contains the most organic matter?

A: The "O" horizon, which is decomposing organic matter on the soil surface.

75. Q: What is Topsoil?

A: Topsoil is the uppermost soil horizon that contains organic matter and the most root activity.

76. Q: How long does it take topsoil to naturally form?

A: About 500 years per inch.

77. Q: How are soil particles transported?

A: Gravity, Wind, Rain, Snow, Glaciers, Lava Flow, Plants, Animals, Vehicles, etc.

78. Q: What determines soil type?

A: The composition and characteristics of the soil.

79. Q: Sonoma County is known for what type of well drained soils?

A: Alluvial Soil

80. Q: What are the three main classifications of rock?

A: Igneous, Metamorphic, and Sedimentary

81. Q: Which type of rock is the result of volcanic activity?



A: Igneous Rock

82. Q: Which type of rock is formed as a result of pressure and temperature?

A: Metamorphic Rock

83. Q: Which type of rock is made through the compaction of deposits?

A: Sedimentary Rock

84. Q: The Alexander Valley AVA is known for which kinds of soils?

A: Volcanic Soils and River Gravel.

85. Q: The Bennett Valley AVA is known for which kinds of soils?

A: Volcanic Soils and River Gravel

86. Q: The Carneros AVA is known for which kinds of soils?

A: Dense clay and River Gravel

87. Q: The Chalk Hill AVA is known for which kinds of soils?

A: Layered Volcanic Ash (with a chalky appearance)

88. Q: The Dry Creek AVA is known for which kinds of soils?

A: Red Rocky Soil and River Gravel.

89. Q: The Green Valley AVA is known for which kinds of soils?

A: Shallow Sea Sandstone and Sandy Loam.

90. Q: The Knights Valley AVA is known for which kinds of soils?

A: Volcanic and River Gravel.

91. Q: The Rockpile AVA is known for which kinds of soils?

A: Dry Rocky Soils with shallow topsoil.

92. Q: The Russian River Valley AVA is known for which kinds of soils?

A: River Gravel and Sandy Loam and deep topsoil.

93. Q: The Sonoma Coast AVA is known for which kinds of soils?

A: Shallow Sea Sandstone, Ocean Mixture and Sandy Loam.

94. Q: The Sonoma Mountain AVA is known for which kinds of soils?

A: Volcanic Soils

95. Q: The Sonoma Valley AVA is known for which kinds of soils?

A: River Gravel and Sandy Loam and deep topsoil

## **V. In Other Words**

96. Q: What is the term used for the study of grapevines?

A: Viticulture

97. Q: What do you call the juice of crushed wine grapes before it is fermented and turned into wine?

A: Must

98. Q: What word means "the study of plants"?

A: Botany- crop plants Horticulture or Agronomy.

99. Q: Which grape variety was planted by Spanish missionaries?

A: The Mission Grape

100. Q: What is grafting?

A: Grafting is the fusing of two different sources of plant material

101. Q: What is the vine's Scion?

A: The fruiting part of the vine that is above ground and above the graft union.

102. Q: What is a vine's rootstock?

A: The stem with a well developed root system, to which the scion is grafted.

103. Q: What is the French word for a horizontal "branch" of a grapevine?

A: A "cordon"

104. Q: What is the French word that means "a combination of soil, weather and the place the grapes are grown"?

A: Terroir

105. Q: What is the word for the moment that the grapes start to turn color?

A: Veraison

106. Q: Which popular California grape variety, brought from east coast settlers, is thought to be the same as the variety "Primitivo"?

A: Zinfandel

107. Q: What is the term used for the study of winemaking?

A: Enology

108. Q: What is fermentation?

A: When yeasts convert sugar into alcohol.

109. Q: What is Apical Dominance and what does it do?

A: The tip (or apex) of a shoot produces growth regulators (hormones) that suppress buds below the tip.

110. Q: What is Chlorophyll?

A: The green pigment found in plants that absorbs energy that's needed for photosynthesis.

111. Q: What is a shoot?

A: Shoots are the current season's green stem growth.

112. Q: What is a cane?

A: A mature shoot that has turned brown.

113. Q: What is a cutting?

A: A cane that has been cut to harvest buds.

114. Q: How many Buds are on a cutting?

A: Five and they will vary from 15-18" in length.

115. Q: What is a Bud?

A: Buds are the dormant growing points that are found at each node on the cane.

116. Q: What is Dormancy?

A: The vine's inactive period between leaf fall and spring budding.

117. Q: What is a petiole?

A: The stem that connects the leaf to the shoot.

## **VI. The Educated Vine**

118. Q: What is the name of the support structure that is used to train the grapevines?

A: A trellis

119. Q: What trellis is named after a type of musical instrument?

A: The lyre trellis.

120. Q: True or False? An open "U" shaped trellis is used for low vigor vineyards.

A: False

121. Q: What does VSP stand for?

A: Vertical Shoot Position.

122. Q: What type of a system is a Scott Henry system?

A: A trellis system where canes are directed both up and down to thereby increase light interception.

123. Q: What does GDC stand for?

A: Geneva Double Curtain.

124. Q: What should vine spacing and trellis system be based on?

A: The anticipated vigor of the vineyard.

125. Q: What is the special root material to which fruiting varieties are grafted?

A: Rootstock

126. Q: What term refers to the growth rate of a vine?

A: Vigor

127. Q: What is the name of the structure, in cordon-trained vines, from which the buds will emerge?

A: The spur

128. Q: What do you call a grapevine that is not actively growing? This period happens during fall and winter.

A: Dormant

129. Q: What is a uniform plant type that is propagated vegetatively from an original mother vine?

A: Clone (or variety)

130. Q: What is the flowering stage of growth that occurs typically in May?

A: Bloom

131. Q: What is a slender twining organ on a shoot opposite a leaf that can coil around an object?

A: A tendril

132. Q: What does a tendril help with?

A: Vine stability

133. Q: What is the stage after blossoming when flowers develop into berries?

A: Fruit Set

134. Q: What is the point at or just above the soil surface where the trunk and root join? At least on grafted vines.

A: The crown

135. Q: What is the green pigment in plants that absorbs light energy?

A: Chlorophyll

136. Q: What is the upper most part of a vine trunk?

A: The head

137. Q: What is the part located on the cane where new growth originates?

A: The bud

138. Q: What is the current year's green growth that will become a cane when it becomes woody and turns brown?

A: The shoot

139. Q: What part makes up 1/3 of the grapevine?

A: The roots

140. Q: What is the flat, thin expanded organ that grows from the shoot?

A: The leaf

141. Q: What is the name of the process for joining a separate rootstock and scion?

A: Grafting

142. Q: What is a scion?

A: A fruiting variety that is grafted or budded onto a rootstock.

143. Q: What is the name of the process for cutting the grapevines to prepare for next year's crop?

A: Pruning

144. Q: The removal of unwanted shoots arising on the vine is called...

A: Suckering

145. Q: When does the suckering process usually begin?

A: In April or May

146. Q: What kind of tissue covers the external parts of a grapevine?

A: Epidermis

147. Q: How do you find out the nutrient status of a grapevine?

A: Take a petiole sample for laboratory analysis.

148. Q: What is the part of the vine that gets tucked" into the trellis wires?

A: The shoot or cane.

149. Q: How many permanent divisions does a unilateral cordon have?

A: One

150. Q: How many permanent divisions does a bilateral cordon have?

A: Two

151. Q: How many permanent divisions does a quadrilateral cordon have?

A: Four

152. Q: What is a collection of similar cells that perform a particular function?

A: Tissue

153. Q: What is the supportive tissue of a grapevine called?

A: Wood

154. Q: What transports carbohydrates from the canopy to the root system?

A: The phloem

155. Q: What are replacement spurs used for?

A: To replace spurs that have died or that have grown too long in older vines.

156. Q: What are the renewal spurs used for?

A: They are used in cane pruning to renew production of wood for the next year's crop.

157. Q: What is the enlarged portion of the cane or shoot where buds, leaves, clusters and/or tendrils are located?

A: The node

158. Q: What is the area between nodes?

A: An internode

159. Q: What can the length of an internode indicate?

A: Vine vigor and health

160. Q: What are the permanent divisions of the vine rising from the trunk?

A: The cordons

161. Q: Type of pruning that retains only 1, 2, or 3 buds per cane as the fruiting units.

A: Spur Pruning

162. Q: Type of pruning that retains multiple buds on a cane as fruiting units.

A: Cane Pruning

163. Q: In what small structure does photosynthesis occur?

A: The leaf cell.

164. Q: What transports water and minerals from the roots to the canopy?

A: The xylem

165. Q: How many vines are needed per acre on a 6x4' planting?

A: 1815

166. Q: How many vines are needed per acre on a 10'x6' planting?

A: 726

167. Q: How many vines are needed per acre on an 8'x5' planting?

A: 1,089

## **VII. Who's That?**

168. Q: What does CAWG stand for?

A: California Association of Winegrape Growers

169. Q: What does SCW stand for?

A: Sonoma County Winegrowers

170. Q: What is CSWP?

A: California Sustainable Winegrowing Program.

171. Q: What does RRVW stand for? (Hint: A River Runs through us)

A: Russian River Valley Winegrowers

172. Q: What does DPR stand for?

A: Department of Pesticide Regulation

173. Q: What's an AVA?

A: American Viticultural Area

174. Q: What does RRVWF stand for?

A: Russian River Valley Winegrower's Foundation

## **VIII. Location, Location, Location!**

175. Q: What is the coolest growing region in Sonoma County?

A. Sonoma Coast

176. Q: Which four counties border Sonoma County?

A: Mendocino, Lake, Napa, Marin

177. Q: Which AVAs in Sonoma County span across 2 counties?

A: Carneros (Napa and Sonoma), The Petaluma Gap (Sonoma and Marin) and Pine Mountain-Cloverdale Peak



(Sonoma and Mendocino)

178. Q: Which is the warmest growing region in Sonoma County?

A: Knights Valley

### **IX. What's Bugging You?**

179. Q: What is a feathered pest that eats maturing grapes?

A: A bird

180. Q: What animal lives underground most of its life and sometimes nibbles on the roots of grapevines and are sometimes nibbled on by barn owls?

A: Gophers

181. Q: What are three weather hazards?

A: Frost, rain, and heat spells.

182. Q: What conditions will cause "Frost Damage"?

A: Temperatures of 32° degrees F (or lower) for at least 30 minutes.

183. Q: Name two methods of Frost Protection.

A: 1. Overhead sprinklers, 2. Vineyard fans, 3. Vineyard heaters (smudge pots), 4. "Frost Shield" or similar chemical protectant applications.

184. Q: Which common vineyard pests are not actually insects, but members of the spider family?

A: Mites

185. Q: Which type of mite prefers warmer upper parts of the vine?

A: The Pacific Spider Mite

186. Q: Which type of mite prefers the cooler shady parts of a vine?

A: The Willamette Spider Mite

187. Q: What is the most common method to control mites?

A: Reduce dust caused by roadways in the vineyard, predator mite releases or miticide applications.

188. Q: Which red and black spotted insects are actually "good bugs" and will eat pests, including Mealybugs, in your vineyard?

A: The Convergent Ladybird beetles (Ladybugs).

189. Q: What does BGSS stand for?

A: Blue-Green Sharpshooter

190. Q: What does LBAM stand for?

A: Light brown apple moth

191. Q: Most commonly controlled with sulfur dust, what is the most common pest of Chardonnay?

A: Powdery Mildew

192. Q: When conditions are just right, which fungal pest is actually considered desirable?

A: Botrytis

193. Q: Name the fungal disease that causes dead arm disease and sounds like a job description for an Italian secretary.

A: Eutypa lata

194. Q: What fungus waits until the fruit is mature and then spreads through berries when conditions are damp?

A: Botrytis

195. Q: How can you manage Botrytis?

A: Controlling the canopy density with shoot thinning and leaf removal.

196. Q: What insect group is a known vector of the bacteria *Xylella fastidiosa*?

A: Sharpshooters

197. Q: What Disease does the bacteria *Xylella fastidiosa* cause?

A: Pierce's Disease

198. Q: Which worm-like, soil dwelling creatures are known vectors of the grapevine disease, "Fanleaf Virus"?

A: Nematodes

199. Q: Why are weeds considered a pest?

A: They compete for water, sun, and nutrients.

200. Q: What is another name for "root louse"?

A: Phylloxera

201. Q: True or False: Certain types of rootstocks can be resistant to Phylloxera attacks?

A: True

202. Q: Which pest can be found on the basal grape leaves and on weeds in the vineyard?

A: Grape Leafhoppers

203. Q: Which is bigger: female Mealybugs or male Mealybugs?

A: The female Mealybug can be seen with the naked eye, male Mealybugs are microscopic.

204. Q: Which insects are known to spread Grapevine Leafroll Virus in vineyards?

A: Mealybugs

205. Q: What are the symptoms of Grapevine Leafroll Virus?

A: Red leaves with edges that are rolled or curled under.

206. Q: What is a parasite?

A: An organism that lives on a host organism that often can kill the host

207. Q: What is meant by the term Systemic?

A: Something that can be taken into and spread throughout the vine

208. Q: What is the name of the grapevine virus that turns leaves red and is often mistaken as Leafroll Virus?

A: Red Blotch

209. Q: What is a pesticide?

A: A substance that is used to control a pest

210. Q: What are algaecides used to control?

A: Algae growth

211. Q: What are herbicides used for?

A: Weed control

212. Q: What are bactericides used for?

A: To control bacteria growth. Anti-Bacterial soap is an example that humans use for health and hygiene.

213. Q: What is a nematocide?

A: A compound that is used to control Nematodes, small soil born worm-like organisms.

214. Q: What are fungicides used for?

A: To control fungi

215. Q: What does F.I.F.R.A. stand for?

A: The Federal Insecticide, Fungicide and Rodenticide Act. This is the Federal law that regulates pesticides

216. Q: What does PPE stand for?

A: Personal Protective Equipment

217. Q: What is the E.P.A.?

A: The Environmental Protection Agency

218. Q: What is an MSDS?

A: The material safety data sheet that tells of potential hazards for each pesticide product.

219. Q: What is an LD 50 rating?

A: An LD 50 rating is based on tests in which the amount of a chemical that kills 50% of the test subjects, typically reported as mg/kg of body weight (parts per million).

220. Q: What is Biological Control?

A: When natural or introduced predators control a pest.

221. Q: What is spray calibration and why is it important?

A: Calibration determines the output of spray product that meets pesticide label rates of application.

222. Q: What is buffer strip?

A: A section of land that is left untreated as a buffer to surrounding areas.

223. Q: What is pesticide drift?

A: When chemicals are carried away by wind from the target area.

224. Q: What is an REI (not the sporting goods store)?

A: A re-entry interval between application of a pesticide and when it is safe for workers to enter the vineyard.

225. Q: What is a harvest interval and why is it important?

A: The time that must pass before the sprayed crop can be harvested. It's illegal to send contaminated fruit to the winery.

226. Q: Do pesticide applicators need special training?

A: Yes, and they need whatever protective equipment the chemical calls for.

227. Q: What is a PCA and what do they do?

A: A Pest Control Advisor is a licensed person who makes pesticide recommendations to help growers control pest issues.

228. Q: How are pesticide containers best disposed of?

A: They must be triple rinsed into the application vessel and then the container must be punctured, cap and label removed, and taken for recycling on the Agricultural Commissioner's recycling day.

229. Q: Is it ok to reuse old pesticide containers?

A: No, not for other pesticides or for anything else. They should be disposed of properly.

230. Q: What are the 5 main points of entry for pesticide contamination?

A: Eyes, Nose, Ears, Mouth and Skin

231. Q: What is the E.G.V.M.?

A: The European Grapevine Moth

232. Q: What is the main concern about the E.G.V.M.?

A: They feed on and live in grape clusters and have the ability to penetrate the berries.

233. Q: When was the E.G.V.M. first found in California?

A: September of 2009 in Napa County.

234. Q: What is being done to reduce the spread of the E.G.V.M.?

A: A quarantine was put in place to restrict the movement of the grapevine moth and growers were required to treat for the insect within 3 miles of any trapped EGVM. Only one area in Sonoma County that borders Napa County remains in quarantine.

235. Q: What is the purpose of the E.G.V.M. quarantine?

A: The quarantine is in place to prevent the spread of European grapevine moth.

236. Q: What is the requirement for transporting grapes from the quarantine area?

A: The grape bins/gondolas must be covered tightly or slack-filled 4" below the top of the container.

237. Q: Who needs an E.G.V.M. compliance agreement if in a quarantine area?

A: Growers, Haulers, Harvesters and Wineries.

238. Q: Can grapes from a quarantined area be shipped outside the county?

A: Yes, but they must be tarped/slack-filled and the hauler must contact the county Ag Commissioner in the receiving county at least 24 hours before the movement.

239. Q: How big is an adult EVGM?

A: 3/8 inch

240. Q: How can wineries help protect their surrounding vineyards from potentially contaminated fruit that they are receiving?

A: The USDA requires that they process fruit within 2 hours of receiving it and it should remain tarped until is processed.

241. Q: Who does the EVGM quarantine benefit?

A: Everyone in the vineyard and winery industry.

242. Q: How are infestations being located?

A: Sticky traps are being set around the county that attract mature male moths and give the Ag Commissioner's office an idea of populations and movement of the EVGM.

## **X. No Wine Before It's Time**

243. Q: In the U.S., what age must you be to purchase wine?

A: 21 years old

244. Q: Grapevines will yield their full potential crop yield how many years after planting?

A: Five years

245. Q: What is the main growth objective for the first year of a new grapevine?

A: To grow a strong root system.

246. Q: What is a main objective for the second year of a grapevines growth?

A: Developing a permanent trunk.

247. Q: How many years after planting a grapevine do you begin to train it?

A: within the first two years

248. Q: If all goes well, how many years after planting a grapevine can you expect your first crop?

A: Three years

249. Q: Name 3 things that have major influences on vine vigor?

A: Soil type, soil depth, soil fertility, soil water holding capacity, water availability

### **XI. Don't Be A Drip!**

250. Q: What happens when a grapevine is water stressed?

A: The shoot tip stops growing.

251. Q: Is water a limited natural resource?

A: Yes

252. Q: What does G.P.H. stand for on irrigation emitters?

A: Gallons per Hour

253. Q: What type of irrigation system can also be used for Frost Protection?

A: Sprinkler Irrigation

254. Q: What type of irrigation was developed in Israel, where there is very limited water?

A: Drip Irrigation

255. Q: Which type of irrigation is least common in our area?

A: Flood irrigation

256. Q: Which type of irrigation can also be used for the application of fertilizers?

A: Drip irrigation

257. Q: What do you call the practice of purposely withholding irrigation from grapevines?

A: Dry Farming or deficit irrigation

258. Q: Gypsum blocks, neutron probes, and tensiometers are what kind of devices?

A: Soil moisture devices

259. Q: What type of irrigation is rarely used in Sonoma County due to the large amount of water that must flow through furrows or ditches on flat ground?

A: Flood Irrigation

260. Q: Name three factors that affect the movement of water through the soil?

A: Soil texture, soil structure, organic matter, soil transition depth, amount of water present and temperature.

261. Q: How many gallons of water are in an acre/foot?

A: 325,851

BONUS Q: Adjusting farming practices for cover crops, pruning and cluster dropping helps to do what?

A. Conserve Water

## **XII. What's In The Bottle?**

262. Q: How many pounds of grapes in one ton?

A: 2000 pounds

263. Q: How many pounds of grapes in one BOTTLE of wine?

A: 2.4 pounds

264. Q: How many grapes in one BOTTLE of wine?

A: Approximately 630 grapes in one bottle of wine.

265. Q: How many 5 oz. glasses of wine are in one BOTTLE of wine?

A: About 5 glasses.

266. Q: How many ounces of wine in a 750 ml bottle?

A: 25.4 ounces

267. Q: How many 5 oz. glasses of wine in a barrel?

A: 1,536 glasses

268. Q: How many bottles are in one case of wine?



A: 12

269. Q: How many barrels of wine are produced from an acre of grapes?

A: 11 barrels (at 4 ton per acre)

### **XIII. It's All Happening In Sonoma County**

270. Q: In what year was the Sonoma County Winegrape Commission (dba Sonoma County Winegrowers) established?

A: 2006

271. Q: Who is the President of the Sonoma County Winegrape Commission?

A: Karissa Kruse

272. Q: Sonoma County Winegrape Commission made a bold commitment to become the nation's first 100% sustainable wine region by what year?

A: 2019

273. Q: What percentage of Sonoma County vineyards are family owned and operated?

A: 85%

274. Q: What percentage of vineyard acreage in Sonoma County has been certified sustainable by a third-party program?

A: 99%

275. Q: What percentage of Sonoma County vineyards are 100 acres or less?

A: 80%

276. Q: What percentage of Sonoma County Vineyards are 20 acres or less?

A: 40%

277. Q: What is the leading red grape variety in the Alexander Valley AVA?

A: Cabernet Sauvignon

278. Q: What is the leading white grape variety in the Alexander Valley AVA?

A: Chardonnay

279. Q: What is the leading red grape variety in the Bennett Valley AVA?

A: Pinot Noir

280. Q: What is the leading white grape variety in the Bennett Valley AVA?

A: Chardonnay

281. Q: What is the leading red grape variety in the Carneros AVA?

A: Pinot Noir

282. Q: What is the leading white grape variety in the Carneros AVA?

A: Chardonnay

283. Q: What is the leading white grape variety in the Chalk Hill AVA?

A: Chardonnay

284. Q: What is the leading red grape variety in the Chalk Hill AVA?

A: Cabernet Sauvignon

285. Q: Is the Dry Creek Valley AVA more famous for its red grape varieties or white grape varieties?

A: Red grapes

286. Q: What are the top 2 red grape varieties, in order of importance, in Dry Creek Valley AVA?

A: #1=Zinfandel, #2=Cabernet Sauvignon

287. Q: What is the leading red grape variety in the Green Valley AVA?

A: Pinot Noir

288. Q: What is the leading white grape variety in the Green Valley AVA?

A: Chardonnay

289. Q: Is the Knights Valley AVA more famous for its red grape varieties or white grape varieties?

A: Red grapes

290. Q: What are the top 2 red grape varieties, in order of importance, in Knights Valley AVA?

A: #1 = Cabernet Sauvignon, #2 = Merlot

291. Q: Is the Rockpile AVA more famous for its red grape varieties or white grape varieties?

A: Red grapes

292. Q: What are the top 2 red grape varieties, in order of importance, in Rockpile AVA?

A: #1=Zinfandel, #2=Cabernet Sauvignon

293. Q: What is the leading red grape variety in the Russian River Valley AVA?

A: Pinot Noir

294. Q: What is the leading white grape variety in the Russian River Valley AVA?

A: Chardonnay

295. Q: What is the leading red grape variety in the Sonoma Coast AVA?

A: Pinot Noir

296. Q: What is the leading white grape variety in the Sonoma Coast AVA?

A: Chardonnay

297. Q: What is the leading red grape variety in the Sonoma Mountain AVA?

A: Cabernet Sauvignon

298. Q: What is the leading white grape variety in the Sonoma Mountain AVA?

A: Chardonnay

299. Q: What is the leading red grape variety in the Sonoma Valley AVA?

A: Cabernet Sauvignon if you exclude Carneros. If not, Pinot Noir.

300. Q: What is the leading white grape variety in the Sonoma Valley AVA?

A: Chardonnay

Other questions:

Q: How many full time employees work in the wine industry in Sonoma County?

A. over 54,000

Q: How much money in tourism dollars is generated by wine tourism in Sonoma County?

A. \$1.2 Billion

Q: Can you name the 3 "P's" of sustainability?

A: People, Planet and Prosperity

Q: Of the 3 "P's", what does prosperity refer to?

A: Remaining economically viable as a business

Q: Why is it important to keep our creeks clean?

A: Creeks provide us with water supply and habitat for fish

Q: What is the #1 pollutant in Sonoma County creeks?

A: Dirt from erosion, i.e. sediment

Q: What causes erosion?

A: When too much water runs too fast off a slope

Q: Name 3 ways grasses protect a hill from erosion.

A: 1) slows the impact of raindrops; 2) roots hold soil in place; 3) leaves and stalks filter water so it runs clean

Q: Why do we like owls in our vineyards?

A: Because they eat squirrels, gophers and mice