

# Summary – PCA Breakfast

Mendocino & Lake Counties

Day. Month. 2024

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## Topics for Discussion

1. Current and Upcoming events and opportunities
2. Sheep used for grazing and cover crop/weed control
3. Tillage vs. Non-Tillage
4. Research studies - WHF lure trial sites needed
5. Review vineyard insect pests and diseases during early shoot growth – Early Season Insect Pests
6. Discuss vine mealybug spring programs, mating disruption options and inspecting nursery green-growing plants for vine mealybug before planting
7. Group discussion and reporting on monitoring for sharpshooter, scale and other insect pest and management options
8. Trellising and Cultivars

**7:30 – 7:40 am = Upcoming events and opportunities**

**7:40 – 9:00 am = Discussions**

### **1. Pre-Discussion**

- a. Wine Market

### **2. Sheep used for grazing and cover crop/weed control**

- a. Can compact the soil more if allowed to run through a vineyard before the soil dries
- b. Compact rotation schedules for grazing in large volumes
- c. 300 head on 10 acres before budbreak
- d. Less compaction on volcanic soils
- e. If you can't control the weeds you get a lot of debris around the vines

### **3. Tillage vs. Non-Tillage**

#### **a. Trends**

- i. Pests that overwinter in the soil thrive in non-tillage soils and increase overwinter survival rates
- ii. Tillage has been decreasing and allowing cutworm populations to increase
- iii. Rotovators result in hard pan soils

### **4. Early Season Insect Pests**

#### **a. Leafhoppers**

- i. Starting to get active
- ii. Many overwintering leafhoppers out there right now
- iii. Maybe not laying eggs yet

- iv. Leafhopper control in organic vineyards
    1. Have to treat Virginia Creeper differently
    2. Application timing and volume is critical
    3. Have to stick with 2% oils
    4. Three applications by May or June
    5. Within 10 days of each other
  - v. Early season basal leaf removal can help population controls by removing habitat for leafhoppers to lay eggs
    1. 30-50% reduction from early-season leafing
    2. Adult population at its lowest during this time
    3. Wait until eggs are laid and maybe until first immatures emerged (only adults are alate)
    4. Early instars don't move as much and don't often move from leaf-to-leaf
    5. Leaves dry out and eggs also desiccate, dry out and die
    6. Timing?
      - a. Close to fruit set
      - b. Development is reliant on GDDS, but so are grapes
      - c. Development tied to grape development
    7. Too much leaf removal can expose fruit too much
    8. Water availability impacts sunburn potential during heavy leafing
  - vi. Oils and soaps should be applied between 1<sup>st</sup> and 2<sup>nd</sup> instars
- b. Cutworms
- i. Was non-existent for a decade (maybe around 1980)
  - ii. Showing up everywhere now

- iii. Have the weather conditions changed to improve their over winter survival?
- iv. Is there a gap in the pesticides that used to be used to control them in the 1980s-1990s?
  - v. Overwinter in the soil so non-tillage promotes cutworm overwinter survival rates
  - vi. Tillage has been decreasing and allowing cutworm populations to increase
  - vii. Rotovators result in hard pan soils
- c. Mildew
  - i. Early season leaf removal can control 30-50% of mildew pressure

## **5. Research Trials**

- a. Nematodes (beneficial predatory)
  - i. Maybe for helping control pest nematodes, cutworm larvae, and other soil-borne pests
  - ii. Application location and timing is unknown in a real vineyard setting
- b. Leafhoppers
  - i. What tools would be most useful?
    1. Timing for first application
    2. Timing for leaf removal for eggs
    3. Determining that timing over lots of acres or multiple mesoclimates
    4. Monitoring grape phenology at specific sites to get trends for leafhopper pressure by site and cultivar
    5. Need to match leafhopper lifecycles to phenology of a given cultivar and site over several years to get a prediction model

- a. Chardonnay at site A might not be at the same developmental stage as Chardonnay at site B
- b. Chardonnay at site A and Zinfandel at site A won't be at the same stage of development
- 6. Using sugars/°Brix in the vine tissue (plant tissue) to combat leafhoppers, using cinnamon
  - a. Sugars ~ Anthocyanins
  - b. Cinnamon ~ Tannins
- 7. Leafhoppers are mesophyll/chlorophyll feeders
- 8. Shoot thinning will probably be too early to time to match with leaf removal to get rid of leafhopper eggs on mature basal leaves

## **6. Reporting and Monitoring for Sharpshooters, Scale, and other Insect Pests**

- a. Sharpshooters
  - i. When to start trapping or putting out sticky traps?
- b. Spotted Lanternfly
  - i. 30 egg masses found in Truckee in Jan/Feb 2024
  - ii. Preferred hosts in California are numerous
    - 1. Black Walnut
    - 2. Grapevines
    - 3. Tree of Heaven
    - 4. Etc...

## **7. Trellises and Varieties**

- a. Trellising impacts sunburn exposure
- b. Some varieties were developed in regions that rain in summer or are cooler

c. Self-shading/weeping canopies can increase ability to remove leaves and control better for mildew and leafhopper eggs in early growth periods (late spring).