

ROP Extension Training Series

Section 6: Vineyard Floor & Advanced Topics

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Agenda

- Quiz
- Vineyard Floor Management
 - ◆ Weeds
- Advanced Horticultural Techniques
 - ◆ Thinning
 - ◆ Gibberellins
 - ◆ Girdling

Physiology

What happens to sugar production of grapes when the plants are stressed for water?

Physiology

When does the energy produced by the vine finally exceed plant needs?

Physiology

Name the two largest uses of photosynthetic products.

Physiology

When are next year's buds produced?

Physiology

When does shoot growth slow down?

Soils

What type of soil can hold the most water available to plants?

Soils

Mottled or multicolored soils indicate what?

Soils

What is the most common nutrient deficiency of grapes?

Soils

What is the most useful aspect of soil tests?

Soils

Where is the best place to tissue sample grapes at bloom time?

Water

When is the most water needed by a grapevine?

Water

How much available moisture can 10 cm of a medium textured soil hold?

Water

How much water does a grapevine need in the middle of the summer?

Water

If water supplies are short, what should a grape grower do?

Water

What is the most important thing to know about your irrigation delivery system?

Disease and Insects

What is the most important thing
about controlling powdery mildew?

Disease and Insects

Name one good organic insect control?

Disease and Insects

How is phylloxera controlled?

Disease and Insects

What is the best method of
controlling grape viruses?

Disease and Insects

What is a cultural method for
controlling anthracnose?

Weed control

- Weeds compete with grapes for water and nutrients
 - ◆ Is most serious in establishment years
 - ◆ The objective in control should be to prevent seed production
- Control options
 - ◆ Chemical
 - ◆ Mechanical

Cover crop management

- Should be kept to middle of rows to not compete with vines or interfere with cultural activities
- Is often good as a site for biological control insects
- Can manage nitrogen
 - ◆ Legumes fix nitrogen
 - ◆ Grasses utilize nitrogen

Yield limitations

- Water
- Variety
- Canopy management
- Fertilizer

Use of Gibberellins

- Is applied at bloom to decrease fruit set
- And again at berry shatter to increase berry size
- It can also thin clusters of seeded varieties

Girdling

- A 1/8" to 1/4" cut is made around the trunk when berries are 3mm to 6-8mm
- About a week after shatter
- Too early results in a heavy set, too late is less effective in enlarging berries
- Berry weight can be increased 10-30%
- Cane girdling can be done on very old vines difficult to girdle or young vines to reduce injury
- Girdling can be done in combination with gibberellin

Girdling



Girdling



Girdling

