**Viticulture Management**

### Cultural Practices

Viticultural practices influence vineyard health, profitability, and sustainability and have a direct impact on grape quality and quantity. Good viticultural management allows for the timely implementation of measures to maintain the health of a crop throughout its growing season. Good viticultural management promotes the following: improving vineyard health, profitability, and sustainability.

### Diseases

**Anthracnose**

- **Symptoms:** Can be seen as brown, sunken spots on leaves, shoots, and fruits.
- **Prevention:** Use fungicides as soon as sharpshooter vectors are detected in the spring.

**Botryosphaeria canker**

- **Symptoms:** Can cause canker lesions on the trunk, canes, and shoots.
- **Prevention:** Use fungicides as soon as sharpshooter vectors are detected in the spring.

**Crown gall**

- **Symptoms:** Can be seen as galls on the roots or stems.
- **Prevention:** Use herbicides as soon as sharpshooter vectors are detected in the spring.

**Phomopsis**

- **Symptoms:** Can cause black rot on leaves, shoots, and fruits.
- **Prevention:** Use fungicides as soon as sharpshooter vectors are detected in the spring.

**Powdery Mildew**

- **Symptoms:** Can be seen as white, powdery deposits on leaves, shoots, and fruits.
- **Prevention:** Use fungicides as soon as sharpshooter vectors are detected in the spring.

**Downy Mildew**

- **Symptoms:** Can be seen as green, powdery deposits on leaves, shoots, and fruits.
- **Prevention:** Use fungicides as soon as sharpshooter vectors are detected in the spring.

**Black Rot**

- **Symptoms:** Can be seen as black, sunken spots on leaves, shoots, and fruits.
- **Prevention:** Use fungicides as soon as sharpshooter vectors are detected in the spring.

**Botrytis**

- **Symptoms:** Can cause gray mold on leaves, shoots, and fruits.
- **Prevention:** Use fungicides as soon as sharpshooter vectors are detected in the spring.

**Bitter Rot**

- **Symptoms:** Can cause bitter rot on leaves, shoots, and fruits.
- **Prevention:** Use fungicides as soon as sharpshooter vectors are detected in the spring.

**Fusarium**

- **Symptoms:** Can cause brown, sunken spots on leaves, shoots, and fruits.
- **Prevention:** Use fungicides as soon as sharpshooter vectors are detected in the spring.

**Pierce’s Disease**

- **Symptoms:** Can cause wilting and death of grapevines.
- **Prevention:** Use fungicides as soon as sharpshooter vectors are detected in the spring.

**Mealybug**

- **Symptoms:** Can be seen as white, waxy deposits on leaves, shoots, and fruits.
- **Prevention:** Use insecticides as soon as sharpshooter vectors are detected in the spring.

**Leafhopper**

- **Symptoms:** Can cause yellowing and stunting of grapevines.
- **Prevention:** Use insecticides as soon as sharpshooter vectors are detected in the spring.

**Japanese Beetle and Green June Beetle**

- **Symptoms:** Can cause physical damage to grapevines.
- **Prevention:** Use pesticides as soon as sharpshooter vectors are detected in the spring.

### Insects

**Thrips**

- **Symptoms:** Can cause damage to leaves, shoots, and fruits.
- **Prevention:** Use insecticides as soon as sharpshooter vectors are detected in the spring.

**Leafhopper**

- **Symptoms:** Can cause damage to leaves, shoots, and fruits.
- **Prevention:** Use insecticides as soon as sharpshooter vectors are detected in the spring.

**Climbing Cucurbit**

- **Symptoms:** Can cause damage to leaves, shoots, and fruits.
- **Prevention:** Use insecticides as soon as sharpshooter vectors are detected in the spring.

**Gatekeeper Beetle**

- **Symptoms:** Can cause damage to leaves, shoots, and fruits.
- **Prevention:** Use insecticides as soon as sharpshooter vectors are detected in the spring.

**Japanese Beetle and Green June Beetle**

- **Symptoms:** Can cause physical damage to grapevines.
- **Prevention:** Use pesticides as soon as sharpshooter vectors are detected in the spring.

**Grape Berry Moth**

- **Symptoms:** Can cause damage to leaves, shoots, and fruits.
- **Prevention:** Use insecticides as soon as sharpshooter vectors are detected in the spring.

**Grape Root Moth**

- **Symptoms:** Can cause damage to leaves, shoots, and fruits.
- **Prevention:** Use insecticides as soon as sharpshooter vectors are detected in the spring.

**Spotted Wing Drosophilid (SWD)**

- **Symptoms:** Can cause damage to leaves, shoots, and fruits.
- **Prevention:** Use insecticides as soon as sharpshooter vectors are detected in the spring.

**Yellow Jacket**

- **Symptoms:** Can cause damage to leaves, shoots, and fruits.
- **Prevention:** Use insecticides as soon as sharpshooter vectors are detected in the spring.