

# Plant Tissue Analysis Report

with Cornell Nutrient Guidelines

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SHELBURNE VINEYARD  
6308 SHELBURNE RD  
SHELBURNE, VT 05482

Lab Sample ID 26057380  
Crop Grapes, French-American  
Variety  
Age Mature (8+ years)  
Market Processing  
Sampled 08/20/2019  
Tested 09/13/2019  
Statement ID LOUISE SWANSON TREATED  
Description LOUISE SWANSON TREATED

Element	DM Basis	Satisfactory Range	Deficient	Low	In Range	High	Excessive
Nitrogen	.78 %	0.8 - 1.2 %					
Potassium	1.02 %	1.3 - 2 %					
Phosphorus	.467 %	0.1 - 0.3 %					
Calcium	2.20 %	1.2 - 2 %					
Magnesium	.070 %	0.35 - 0.5 %					
Manganese	5 ppm	50 - 1000 ppm					
Iron	76.2 ppm	30 - 100 ppm					
Copper	1.84 ppm	5 - 15 ppm					
Boron	3 ppm	30 - 50 ppm					
Zinc	113.1 ppm	35 - 50 ppm					

Additional Elements	As Sampled Basis	Dry Matter Basis
% Sulfur	.51	.60

**Nitrogen:** Nitrogen values are useful in documenting potential problems. Consult Extension Specialist if value is outside of satisfactory range.

**Potassium:** Apply 200 - 300 lbs. K<sub>2</sub>O equivalent per acre. Rate needed is best determined from soil test in conjunction with petiole analysis. If soil Mg is also low, use of 0-0-22-11 (sulfate of potash-magnesia) as the source of K is suggested.

**Phosphorus:** Omit phosphate from fertilizer program. High phosphorus levels may indicate possible zinc or copper shortages.

**Calcium:** High calcium levels may be associated with low K levels.

**Magnesium:** See soil test recommendation for lime and magnesium requirements and apply dolomitic lime as needed. If potassium is also low, use sulfate of potash-magnesia (0-0-22-11) as the source of potassium. Also apply 3 post-bloom sprays of Epsom Salts (10 lbs. per 100 gallons). Resample next year.

**Manganese:** If visible symptoms of manganese deficiency have been observed in the vineyard, consider use of manganese-containing fungicides or apply a spray of manganese sulfate (2 to 4 lbs. per acre) 14 - 21 days after bloom.

**Iron:** No correction is suggested.

**Copper:** Apply Bordeaux Mixture or other copper fungicides as recommended for disease control.

**Boron:** Apply only 1 lb. of actual boron per acre to coarser textured acid soils. Apply 2 lbs. of actual boron per acre to loam or finer textured soils. Soil applications of boron can be made at any time, but fall application is suggested in order to allow movement into the root zone before growth starts next spring. Also apply foliar sprays of Solubor (20.5% B) at 1 lb. per acre per spray (0.2 lb. actual boron) when new shoots are 8 to 12 inches long and again at the beginning of bloom (25% of flowers open). CAUTION: Do not apply boron sprays at less than 14 day intervals between sprays. Do not tank-mix boron with products in water soluble packages, oil or surfactants. Check compatibility with other products with manufacturers. Low boron can affect the uptake of many other nutrients because of poor root growth. Adjusting boron levels can improve uptake of other nutrients.

**Zinc:** High levels may be from fungicide contamination of the sample and do not represent a problem.

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