



Please complete and return to Kim Brunson at kimb@agmgt.com
 Monday November 8, 2021

Poster Title: _____

Poster Category:

	Vineyard Establishment
	Vineyard Management
	Irrigation
	Economics
	Pests, Diseases, Disorders, Nutrition
	Weather
	Resources (ex. AgWeatherNet, Clean Plant Network)

Name of primary contact/author: _____

Primary contact email: _____

Required information for each author:

Name: _____ email: _____

Name: _____ email: _____

Name: _____ email: _____

Abstract (no more than 200 words): Vineyard nutrient management is crucial for reaching production-specific quality standards, yet timely nutrient status evaluation is challenging. The current sampling protocol is time-consuming and does not provide spatial resolution, as it is based on manual collection of tissue samples (leaves and/or petioles) at bloom or veraison, combining them into a single sample per vineyard block, and sending them to a lab for analysis. Also, fertilizers are often applied based on historical data. This project seeks to 1) optimize existing tissue sampling protocols; 2) determine how rapidly grapevines respond to nutrient adjustment. Updated protocols will support the development of non-destructive tools for real-time monitoring of vineyard nutrient status. Field trials were established with Syrah, Chardonnay, Sauvignon blanc, and Concord. Preliminary results showed that blade and petiole nutrient concentrations were not well correlated with 4.1-fold higher N concentrations and 2.6-fold lower K concentrations in blades than petioles. Across varieties, fruit harvest removed 2.4 lbs N, 0.7 lbs P, 5.7 lbs K, and 0.4 lbs Mg for each ton of grapes. Nutrient loss during leaf fall was approximately 39 lbs N, 6 lbs P, 20 lbs K, and 15 lbs Mg per acre. Lost nutrients must be replaced through fertilizer addition.