

Effect of *Converted Organics*[™] LC and *Converted Organics*[™] XK on Large Scale Wine Grape Varieties 2005 Season Trial Results

California accounts for 38 percent of the national fruit and nut production and 65 percent of the national value of fruit and nut crops. In 2004, grapes continued to be the top-valued fruit and nut crop with \$2.76 billion, increasing 19 percent from the previous year.¹ Wine grapes accounted for \$1.6 billion of that crop's total value. With such a large investment, growers are constantly looking for ways to improve crop yields and quality in addition to reducing the expenses and environmental effects associated with the use of synthetic fertilizers and pesticides while protecting the largest investment of all—their soil.



TRIAL BACKGROUND

This multi-year, large scale wine grape trial began in 2005 to determine if *Converted Organics*[™] LC and *Converted Organics*[™] XK, when added to growers standard fertilizer program could: 1) increase yields 2) increase color and 3) increase overall vine health (vigor).

Table 1. Wine Grape Trial Conditions

Products Tested	<i>Converted Organics</i> [™] LC and <i>Converted Organics</i> [™] XK
Harvest Date	2005 Season
Wine Grape Varieties	Barbera, Cabernet Sauvignon, Merlot, Rubired, Ruby Cabernet and Syrah
Soil Type	Five (general): ranging from clay to sand
Irrigation Type	19 field lots: drip irrigation 8 field lots: flood irrigation
Application Method	Flood irrigation: shanked or sprayed Drip irrigation: injected
Application Schedule	At bloom, 30-40 days after first application, during veraison
Application Rate for <i>Converted Organics</i> [™] LC (unless otherwise noted)	Application 1: 7 gallons per acre Application 2: 7 gallons per acre Application 3: 7 gallons per acre
Treatment Location	27 field lots/20 growers
Treatment Acres	1,364
Control Acres	1,298
Field Locations	Southern San Joaquin Valley: Firebaugh/Madera to Arvin

YIELD ANALYSIS

Converted Organics[™] LC and *Converted Organics*[™] XK improved crop yields of 0.65 tons per acre in Barbera, 0.33 tons per acre in Ruby Cabernet, 0.40 tons per acre in Merlot and 1.60 tons per acre in Cabernet Sauvignon. Rubired yield was lower in the *Converted Organics*[™] treated area by 0.31 tons per acre.

PETIOLE ANALYSIS

Petiole samples were taken at 25-80% veraison on both treated and control fields. (See Figure 1)

¹ California Agricultural Resource Directory 2005

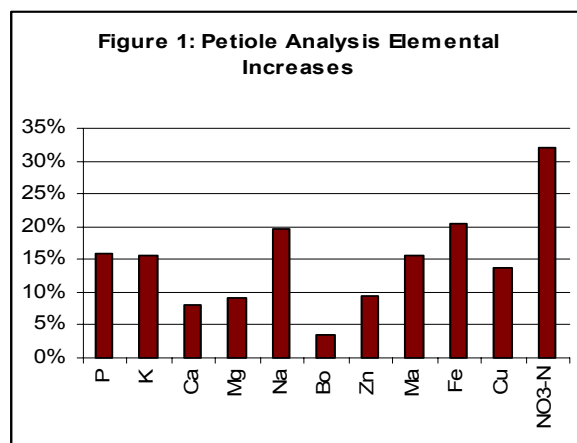
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Note: Petiole analysis data was collected by *Converted Organics* of California, LLC. Yield and color analysis data was collected by the winery

Trial Reference Number: 1105GALCXX01

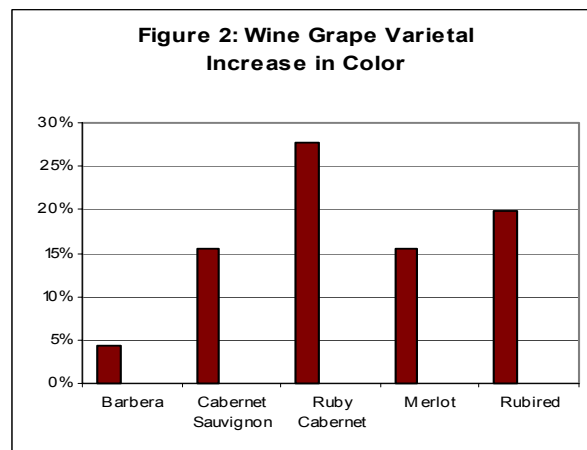
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COLOR ANALYSIS

In the *Converted Organics*[™] treated areas of the trial, an increase of color was realized at the rates of: 4.44% in Barbera, 15.51% in Cabernet Sauvignon, 27.77% in Ruby Cabernet and 15.60% in Merlot. There was reduced color in one field of Syrah by 7.58%. Field samples taken in *Converted Organics*[™] treated areas of Rubired fields prior to harvest showed a 4.73% decrease in color. However, multiple samples taken at harvest indicate an average of a 19.78% increase in color.



2005 TRIAL SUMMARY AND FIELD OBSERVATIONS

The first application of *Converted Organics*[™] LC helped reduce shatter in the Ruby Cabernet fields and two out of three Barbera fields. In some cases, a ton per acre increase was realized due to the increased set. In most fields, there was better bunch uniformity (fewer shot berries) and increased berry size diameter. There was a visual difference of increased color in some varieties in the treated areas. In some fields, a visual increase in canopy growth was observed where soil conditions were poor.