

# KDL<sup>®</sup> color, flavor, quality wine

Wine grape growers in the USA, Australia and South Africa successfully use KDL, beginning at veraison, to encourage uniform berry maturation and to increase color density. Due to climate conditions and other reasons, many growers experience a slow down or in some cases a stoppage of maturation. KDL can alleviate this problem while promoting uniform ripening and maturation, which enhances quality and minimizes harvesting costs.

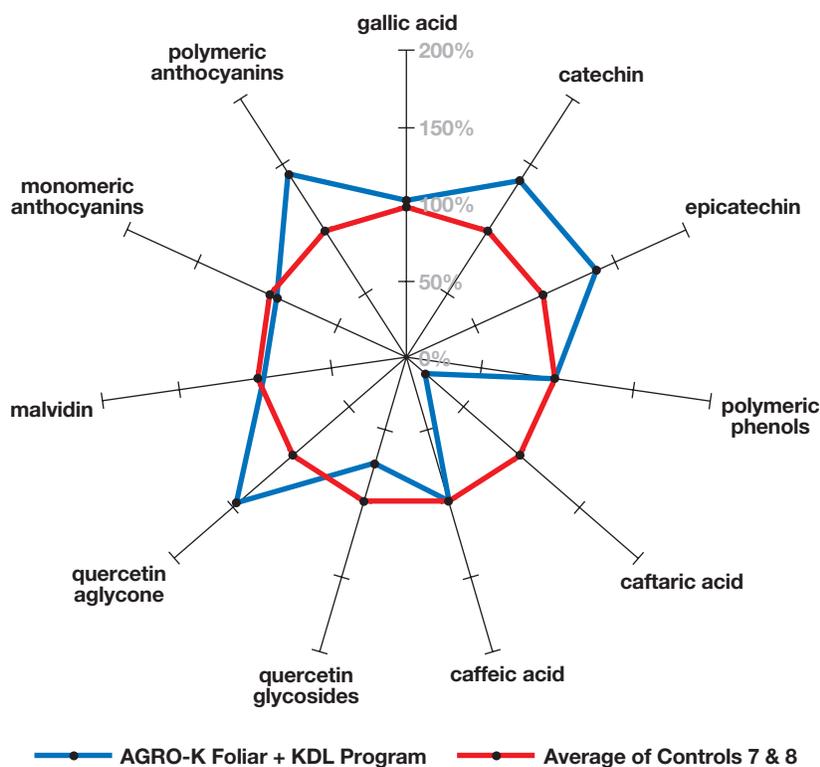
| PINOT NOIR           |                             | JUICE |      |       |
|----------------------|-----------------------------|-------|------|-------|
| Treatment            | Bunch Weight (lbs.)/5 vines | Brix  | pH   | %K    |
| Foliar Program w/KDL | 93.8                        | 25.2  | 3.48 | 0.066 |
| Control #7           | 90.0                        | 23.5  | 3.45 | 0.073 |
| Control #8           | 93.0                        | 23.9  | 3.50 | 0.072 |

1) Fully replicated trial conducted by Hale Agricultural Services, Santa Maria CA  
 Trial location Kendall Jackson Vineyards, Santa Maria, CA  
 2) Juice data generated from replicated samples by Dr. Ken Fugelsang, Dept of Enology and Viticulture, Fresno State Univ.  
 3) Agro-K foliar program consisted of multiple applications of Agro-K products including Symspray, 3-18-18, Vigor-Cal with Boron, Magnesium DL, Zinc DL and three applications of Potassium Dextro-Lac (KDL) at 1 gal/acre at Brix stages 16, 18 & 20.

In the following study a season long Agro-K foliar program was used finishing with three applications of KDL at 1 gallon per acre when brix levels reach 16, 18 and 20 respectively. The juice data and phenolic

compound analysis of the resulting wine is presented in the following table and chart.

The data shows that KDL treated grapes had higher levels of important color components like the anthocyanins and lower levels of the bitter flavor component, caftaric acid, as well as higher brix. But even more importantly, the juice data shows that KDL did NOT negatively affect either the pH or potassium levels. *Many winemakers do not permit potassium to be sprayed post veraison due to fears that it will raise potassium levels in the juice and lead to stuck fermentation. Clearly these fears are unwarranted. In fact, the opposite is true ... KDL enhances wine quality!*



This diagram represents phenolic levels in the treated program relative to the untreated programs, which are arbitrarily deemed to be 100%.

