

Wine grapes: increase of nitrogen and aromas in the must

Aim of the trial

Measuring the effectiveness of KAPPA Z compared to an untreated control, to increase concentrations of digestible nitrogen and aromatic compounds in the must of Grenache noir.

- ⇒ Glutathione and cysteine are precursors of the aromatic compounds present in nitrogen and sulphur rich musts.
- ⇒ Digestible nitrogen is important for a good alcoholic fermentation because of the better nourishment of the yeasts.

General information

Conditions of the trial:

Trial location: France – Rhône-Alpes
Variety: Grenache noir (rosé wine)
In cooperation with: Soufflet Vigne

Treatments

Untreated control

Kappa Z:

T1 : Kappa Z : 6 kg/ha – early veraison (28/07/2017)
T2 : Kappa Z : 6 kg/ha – 14/08/2017

Results

Analysis of the must:

	Control	Kappa Z	Difference
S-3-(hexan-1-ol)-L-cysteine (µg/L) LC/MS/MS	3.4	6.6	+ 94%
S-3-(hexan-1-ol)-L-glutathione (µg/L) LC/MS/MS	340.3	429.2	+ 26%
Azote Alpha Aminé (mg/L)	77	96	
Azote Ammoniacal (mg/L)	83	81	
Digestible nitrogen (mg/L) Calculated	160	177	+ 11%

- ⇒ Significant increase in the measured thiols (cysteine and glutathione) and digestible nitrogen in the must due to the two applications with Kappa Z.