Winetech Scan

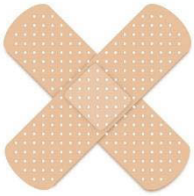
Wine Industry Network of Expertise and Technology • Netwerk van Kundigheid en Tegnologie vir die Wynbedryf

October 2016

Treatment by fining agents of red wine affected by phenolic off-odour

The aim of this study was to determine the effect of activated charcoal, PVPP and zeolite on 4-EP and 4-EG concentrations in red wines in order to improve the sensory quality of contaminated wines. The researchers treated a naturally low contaminated wine and a spiked wine. They found that the charcoal and the PVPP significantly decreased the concentrations of volatile phenols in the naturally contaminated wine but were ineffective in reducing the concentrations in the spiked wine. Polyphenols and colour were slightly affected and the ester concentration also decreased. The sensory outcome of both treatments was a decrease in phenolic off-odour and interestingly enough an increase in fruity flavour, despite the decrease in fruity ester concentrations. Read more

Effectiveness of chitosan preparations against *Brettanomyces bruxellensis*



In this study researchers evaluated the effectiveness of chitosan from three different sources on *Brettanomyces* concentrations in a culture media and in red wine. Even though the fungal origin chitosan was completely ineffective in the culture media it was the most effective chitosan in real wine. In both Cabernet Sauvignon and Merlot it reduced the Brett count in a three log count of culturability. However the wines were not completely stable after treatments as populations eventually increased again. It is therefore advised to rack and filter wines after a few days of chitosan treatment to avoid recovery of the cells. The impact of chitosan appears to be fungistatic and not fungicidal. Read more

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Do cover crops compete for water in vineyards? Case studies in Mediterranean terroirs

Case studies were conducted on vineyards in different regions in Portugal to give an overview of the extent to which cover crops compete for water. The impact on vegetative growth, yield and berry composition was also considered. Compared to soil tillage, cover crops increased vineyard water use during spring, but showed similar or even lower water use during summer. It appears that the competition by cover crops in the inter-row increased the capacity of the vine root system to extract more water from deeper soil layers. Accumulated water use from bud-break to harvest showed no significant differences between soil tillage and resident vegetation for all the three sites. The impact on grapevine performance/vigour was *terroir* dependent.

Read more

Vine response to compost addition in Cabernet Sauvignon vineyard on sandy-loam soil

A study was done in North Italy to determine the effects of compost on the root system, vegetative growth, yield and grape quality of Cabernet Sauvignon on sandy loam soil. Compost generally improved total soil nitrogen, organic matter and microbial biomass. Cattle manure had no significant effect on the vine root system but stimulated the highest vegetative growth. Compost from pruning waste applied inter-row had a positive effect on root density, but more so when the compost was applied under the vine row. Compost under vine row also increased vegetative growth, but not as much as the cattle manure. Inter-row application of pruning waste compost contributed to the most balanced root/shoot growth. Application of compost in the vineyard can have positive effects on vine performances, but attention must be paid to the compost type and to the application method in order to achieve balanced root/canopy growth. Read more

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Leaf to fruit ratio affects impact of foliar applied nitrogen on nitrogen accumulation in the must

Agroscope investigated the impact of the leaf-to-fruit ratio on nitrogen (N) partitioning in grapevines following a foliar urea application with the aim of increasing the yeast assimilable nitrogen (YAN) concentration in the must. The leaf-to-fruit ratio strongly impacted the N partitioning in the grapevines. Total N and foliar-N partitioning was mainly affected by the variation of canopy height. The YAN concentration varied depending on the leaf area. An oversized canopy induced a decrease in the total N concentration of all organs and a decrease in YAN quantity in the must in particular. Thus, a balanced leaf-to-fruit ratio should be maintained to guarantee grape maturity, YAN accumulation in the must and N recovery in the reserve organs. The results of this study encourage further research to understand the role of other physiological parameters that affect N partitioning in the grapevine – YAN accumulation in the must in particular – and add new perspectives for N management practices in the vineyard. Read more

Upcoming events:

SHIRAZ SA

Shiraz SA Technical Workshop: Tuesday 15 November 2016 - Kronenburg, R45 Paarl

PROVISIONAL PROGRAMME:

Registration
Shiraz S. A. Annual General Meeting
Discussion & Tasting: The effect of bleeding, stalks etc. on Shiraz - Riaan Möller
Tasting: German Shiraz - Dr Andy Roediger
Discussion of chemical and sensorial composition (including Rotundone) of 2016 Shiraz SA Wine Challenge Winners - Prof Wessel du Toit
Discussion & Tasting: 2016 Shiraz SA Wine Challenge Winners - Charles Hopkins
How do French and South African winemakers describe Shiraz wines? Dr Mihaela Minhea
International Tasting: Shiraz styles - Roland Peens

Contact Sandra Lotz: info@shirazsa.co.za

Sauvignon blanc Interest Group Technical Seminar - 23 Nov
Programme will be available soon

Sauvignon BLANC INTEREST GROUP

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