



LALLZYME EX-V

Enzyme for maceration/skin contact

PROPERTIES

Lallzyme EX-V is an enzyme preparation of pectinase with hemi-cellulase and cellulase secondary activities.

This preparation was specially developed for the improved extraction of color and tannins for wines to be aged.

ACTIVITIES

The standard activities of Lallzyme EX-V are :

- 4000 PGu/g (Polygalacturonase)
- 1000 PEu/g (Pectin Esterase)
- 120 PLu/g (Pectin Lyase)

ACTION

LALLZYME EX-V was formulated to allow a rapid liberation of the intra-cellular contents due to the synergistic effect of concentrated pectinases and the specific activity on lysing and releasing other polysaccharides from the grape cell wall.

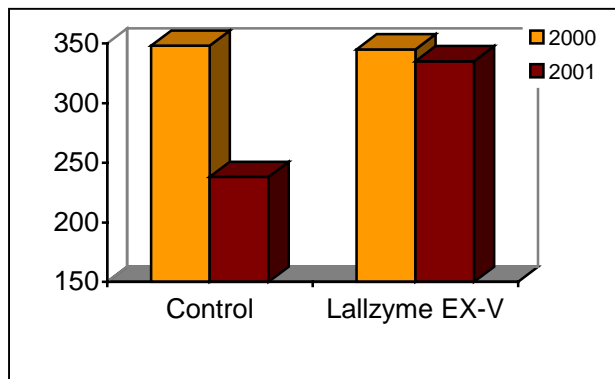
LALLZYME EX-V:

- allows for a complete and rapid release of anthocyanins,
- allows for a more efficient extraction of tannins and their subsequent binding with the anthocyanins and greater stability of the wine,
- increases the extraction of aromatic substances while respecting the varietal characteristics of the grape

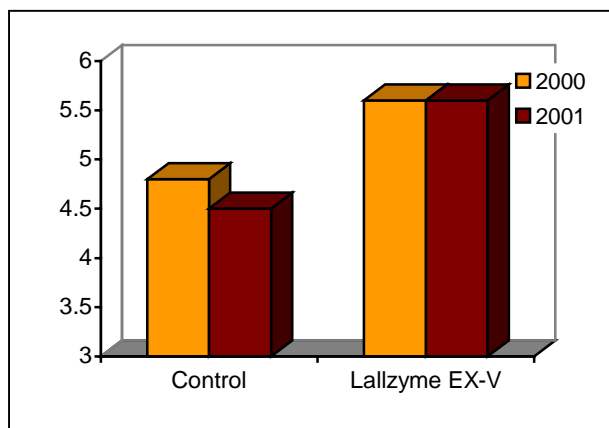
Overall, the use of LALLZYME EX-V lets the winemaker achieve wines with greater complexity and mouth feel, with more intensity and more stability for long-term aging and development.

RESULTS

Trials were done in the region of Bordeaux at the Chambre d' Agriculture de la Gironde in 1999 on Cabernet Sauvignon. The results demonstrated clearly that the wines elaborated with Lallzyme EX-V are more color-stable over time compared to wines not treated with enzymes (Graphs 1 and 2)

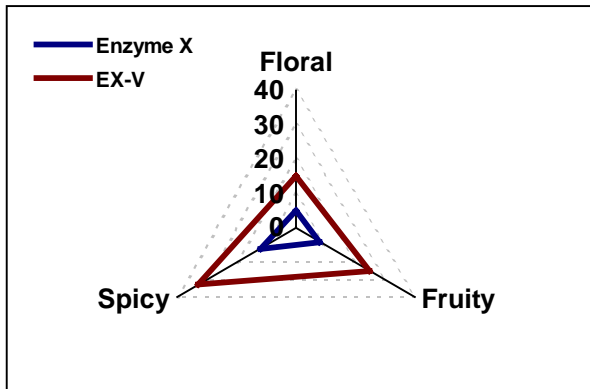


Graph 1--Evolution over time of anthocyanin level (mg/L)



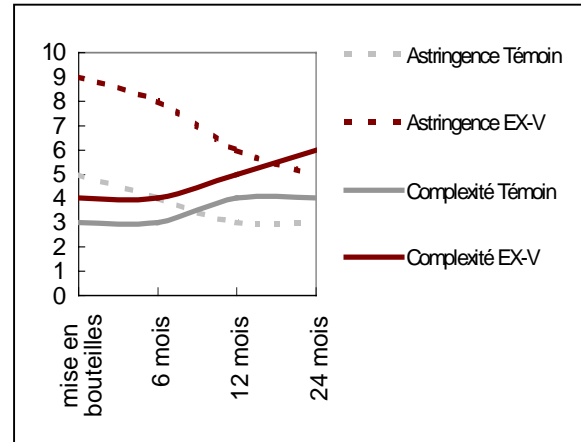
Graph 2--Evolution over time of the color intensity (DO 420+520+620)

Vinification trials with Grenache showed an equally positive impact on the aromatic profile, with the use of Lallzyme EX-V (Graph 3).



Graph 3-- Extraction of aromatic compounds (% compared to control sample)

During tasting trials, wines treated with LALLZYME EX-V were judged to be more tannic. As the wines were then sampled during maturation, characteristic descriptors indicate that the treated wines are more complex in both the development of organoleptic profiles as well as mouthfeel, while maintaining a good tannic structure.



Graph 4-- Evolution of the astringency and the complexity with Cabernet Sauvignon wines (1999) during bottle maturation.

METHOD FOR USE

LALLZYME EX-V is normally used at a dose of 3 g per hL must or 2 g per 100 kg of grapes (approximately 20 g per ton of grapes).

Dilute the enzyme in an adequate amount (generally in the proportion of 1 : 100) of water or grape must to allow for an even distribution in the whole quantity of grapes.