



Lette Vinification Authentique



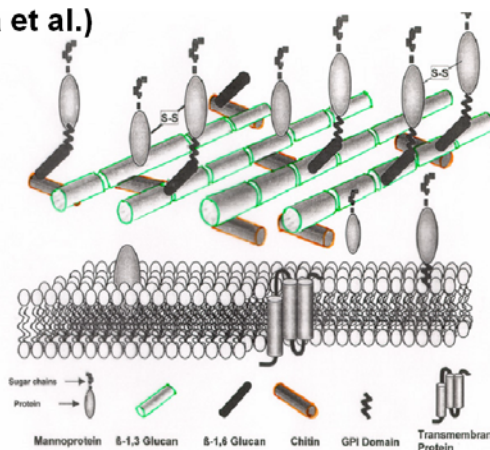
Enhanced creamy sensation, mellowness on the palate, structure and density through a promoting yeast autolysis with LittoZym Sur lies

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The autolysis of yeast cells in the declining phase and dead yeast cells is caused by cell-contained enzymes, particularly by $\text{exo-}\beta\text{-glucosidases}$, $\alpha\text{-mannanases}$ and proteinases . The autolysis can however be accelerated and completed by the addition of the specifically acting wine enzyme LittoZym Sur lies.

The structure and composition of the yeast cell wall (fig. 1) and above all, the structure of the yeast glucans matches the effect of the $\text{exo-}\beta\text{-glucosidase}$ activities present in LittoZym Sur lies according to the key-lock principle. The degradation of the glucan portion in the yeast cell wall by LittoZym Sur lies makes the cell membrane porous and eventually leads to its complete decomposition (fig. 2).

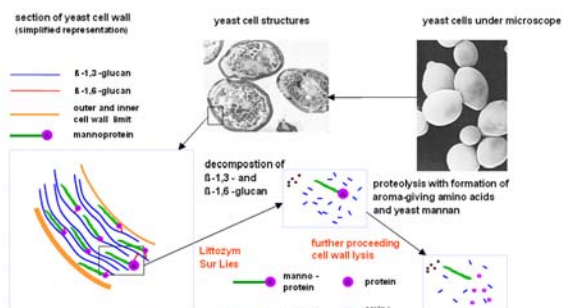
Fig. 1: Cell wall model of Sacch. cerevisiae (Molina et al.)



Molina et al., Microsc. Res. Tech. 15 (2000), 601-612

Firstly the release of the mannoproteins from the yeast cell wall is accelerated, then with a further proceeding enzymatic decomposition process yeast mannan and yeast secondary substances, as for instance, amino compounds with aroma-giving character are liberated. Mannoprotein and yeast mannan lead to a more intensive, longer lasting mouthfeel, to structure, density, creamy impression and mellowness. The yeast aromas bring about a „sur lies“ effect.

Fig. 2: Effect of LittoZym Sur lies on wine yeast in declining phase



Enzymatic release of mannoprotein with $\text{exo-}\beta\text{-1,3-glucosidase}$ and $\text{exo-}\beta\text{-1,6-glucosidase}$ with further proceeding cell wall lysis to yeast mannan and amino acids

The intensity of the yeast lysis and the impact on taste is positively controlled and directed by the time of addition, different stirring intervals, the contact time of LittoZym Sur lies and the yeast amount (fine lees or lees). LittoZym Sur lies is applied in dosages of 2 to 5 g/100 L. Yeast cell wall lysis advanced by LittoZym Sur lies is a natural measure to release mannoprotein.

With natural products, treatment is subject to the usual imponderabilities. Therefore treatment recommendations given in the technical product leaflets are not legally binding and without liability. In addition our general terms of business apply.

