ENDOZYM® Glucalyse 2.0

β-Glucanase enzyme

TECHNICAL DESCRIPTION

ENDOZYM Glucalyse 2.0 is a preparation with high β-glucanasic activity, which degrades the ß-1-3 and ß-1-6 glucan bonds leading to partial hydrolysis of the glucomanno-protein fraction. The presence of this colloid in must or wine is linked to Botrytis cinerea attack on grapes. In certain cases, limited attacks that are not noticeable to the eye nevertheless contribute to increasing the glucomanno-protein fraction content. Its presence is also linked to the varieties where it is naturally more present, combined with greater pectin branching.

The presence of glucans in wines has among its greatest drawbacks the difficulty of clarification: this problem stems from the fact that glucans consist of a linear β (1-3) glycosidic skeleton, which forms branched molecules due to the presence of β (1,6) glycosidic bonds. Therefore, glucans vary the molecular mass, affecting solubility, viscosity and branched structure of the colloid. The difficulty in clarifying the medium is accentuated especially if small endogenous particles, related to the origin of the grapes, are present, if botrytised, or if processing equipment is used that favours their creation. The presence of glucans has a strong impact on all those light adsorbing clarifiers, such as PVPP and decolourising or deodorising carbon, which are often used in large doses due to the imperfect sanitary conditions of the grapes.

ENDOZYM Glucalyse 2.0, with its highly concentrated β-1,3-β-1,6-glucanase activity, is designed for the complete hydrolysis of β-glucans. It therefore aids clarification processes and assists clarifiers; glucans also have a considerable impact on the filtration performance of wines or musts. Therefore, the use of **ENDOZYM Glucalyse 2.0** makes this process easier and more economically viable.

However, the use of **ENDOZYM Glucalyse 2.0** is not only limited to the degradation of glucans in the wine, but also acts as an adjuvant in the ageing process sur lies, where, thanks to its action, it favours the release of beneficial compounds by bringing polysaccharides to the wines more rapidly, which give them: greater body and volume, higher aromatic persistence, protein and colour stability.

COMPOSITION AND TECHNICAL CHARACTERISTICS

Enzyme preparation with a high β-glucanase content.

Enzyme activities present in **ENDOZYM Glucalyse 2.0:**
BGLU (beta-glucanase): degrades ß-1-3 and ß-1-6 glucan bonds. It is the activity that leads to the partial hydrolysis of the glucomannan-protein fraction.

ENDOZYM Glucalyse 2.0 also contains other activities that are synergistic with it, making the product unique in terms of its efficacy and formulation.

Reference: ENDOZYM_GLUCALYSE_2.0_TDS_EN_0050624_OENO_Australia

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ENDOZYM® Glucalyse 2.0

ENDOZYM Glucalyse 2.0 is purified by the following activities:
CE (Cinnamyl Esterase): is an activity present in non-purified enzymes, which causes the formation of volatile phenols, compounds that impart unpleasant aromatic notes to wine which, when present in high concentrations, are reminiscent of horse sweat.
Anthocyanase: this is a secondary enzyme activity that causes a partial degradation of anthocyanins and a consequent increase in the orange hue of wines. AEB enzymes are obtained from Aspergillus niger strains that do not produce anthocyanase.

⇢ DOSAGE

1 to 5 g/hL. The suggested dosage varies depending on the temperature of the wine. By operating at higher doses, the negative influence of low temperatures can be corrected.

⇢ INSTRUCTIONS FOR USE

The physico-chemical conditions of the medium, particularly the temperature, play a decisive role on enzyme activity. This is why we recommend using **ENDOZYM Glucalyse 2.0** already from the first racking, when temperatures are most favourable.
Use the enzyme from the end of fermentation and leave it in contact with the wine as long as required for the desired action.
Treatment residues are then removed by clarifying with BENTOGRAN.

⇢ ADDITIONAL INFORMATION

SO_2 INFLUENCE
Enzymes are not sensitive to oenological levels of sulphur dioxide, but it is good practice not to place them in direct contact with sulphurous solutions.

MONITORING ACTIVITY
There are different methods for assessing enzyme activity. One system used by AEB is the direct measurement method linked to the concentration of PL, PG and PE; the sum of the three activities gives rise to the unit Total UP per gram. AEB provides technicians with methods for determining pectolytic units and activity diagrams.

⇢ STORAGE AND PACKAGING

Store **ENDOZYM Glucalyse 2.0** in its original sealed packaging, away from light, in a cool dry place free of odours, preferably below 20°C. Do not freeze. Respect the shelf life indicated on the packaging. Use quickly after first opening.

250 g bottles in 1 kg boxes
1 kg bottles in 4 kg boxes.

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