Trenolin® Thermo DF

Highly efficient enzyme complex for the optimized thermo-vinification and for decanter juice extraction, depsidase-free

Product Description

Trenolin® Thermo DF is a highly efficient liquid enzyme complex for the optimized thermo-vinification of red mashes/crushed grapes and to support decanter juice extraction. Besides the „classical" pectinase fractions, pectinesterase and polygalacturonase, also the "new" pectinase fractions, the enzyme activities rhamnogalacturonase, arabanase/arabinosidase and xyloglucanase and others, which can attack the difficultly degradable pectin components, the so-called " hairy-regions", are contained in Trenolin® Thermo DF. The useful proteinase and cellulase/hemicellulase side activities integrated in the enzyme complex, support the pectinases in a positive way. Trenolin® Thermo DF is free from undesired depsidase activity.
Permitted according to the laws and regulations currently in force. Purity and quality are proved by specialized laboratories.

Aim of Treatment

Optimized complete digestion of grapes, thus:

- reduced mash rest periods, better colour extraction and extraction of catechins, relevant for colouring matter, earlier pressing and recooling to a larger extent, increased liberation of primary aromas, improved and facilitated free juice run-off, reduced pressing pressures and less uptake of bitter phenols

Stronger, further going degradation of pectins and colloids, thus:

- very good splitting up of colloidal macro molecules, reduced cloudiness-causing colloids, accelerated must self-clarifying, improved subsequent filtration, reduced foam formation, breakdown of colloid-like finest sediment particles

Product and Effect

Trenolin® Thermo DF is an unique enzyme complex which contains also valuable side activities of acidic proteinase and cellulase/hemicellulase in addition to multiple pectin-degrading activities described by modern colloid and pectin research.
The working together of "classical" and "new" pectinase fractions with cellulase/hemicellulase side activities results in a more complete grape digestion at shorter rest periods of the mash, which leads to enhanced extraction of colour, catechins and primary aromas. At the same time this leads to improved, facilitated free juice run-off at lower pressing pressures and reduced uptake of undesired bitter phenols.
The combined effect of "classical" and "new" pectinase fractions, and proteinase side activity provides for a stronger, further going degradation of pectins and other colloids, which are contained in larger amounts, above all, in thermically treated, mechanically stressed grape mashes. This reduces the content of trub-stabilizing macro-molecules which inhibit sedimentation. Self-clarifying is promoted, the separating performance of clarification centrifuges and later filtration processes are improved. At the same time the hydrolysis of thermically denatured proteins leads to a minimization of foam formation. Most important is the efficient breakdown of colloid-like finest sediment particles which otherwise would create an unpleasant tannic mouthfeel.

Dosage and Application

Trenolin® Thermo DF is applied whenever thermal pretreatment or mechanically induced stress of the crushed grapes let expect clarification and filtration problems. The activity of Trenolin® Thermo DF depends on dosage, temperature and contact time. The temperature for treatment should be around 40-50 °C. The higher the temperature, the more active the enzyme. The natural upper limit is at 55 °C, i.e., when higher temperatures were applied in advance, cooling down is required before enzyme addition. The respective enzyme dosage is diluted with some water and is then added to the mash. Mix carefully to provide for good distribution.

Treatment case	**Moment of dosage**	**Trenolin® Thermo DF dosage (mL/100 kg)**
thermovinification	after mash recooling (<55°C)	1-3
decanter juice extraction	after must recooling (<55°C)	2-4

The contact time of the enzyme during thermovinification should at least come up to 2-4 hours. Longer contact times are advantageous.

Storage

Store in a cool place. Reseal opened packagings tightly and use up soon.

6 senses for your success

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