

Thermostable pectolytic enzyme complex for an accelerated maceration of red grape mashes during mash warming at 65-75°C, depectinase-free

Product Description

Trenolin® T-Stab DF is an innovative, thermostable pectinolytic enzyme complex for the accelerated maceration of red grape mashes in the course of mash warming at 65-75°C. Trenolin® T-Stab DF contains besides a temperature-stable pectinase further useful and valuable thermostable enzyme activities such as acidic proteinases and hemicellulases which effect an intensive mash digestion without attacking the mash structure and macerate it in an unfavourable way. Trenolin® T-Stab DF is free from undesirable depectinase activity.

Aim of Treatment

- accelerated maceration of red grape mashes for improved dissolving-out of colour pigments and polyphenols, above all structure-giving oeno-tannins and pigment-stabilising catechins
- reduced mash rest periods, quicker, almost continuous operation, higher amount of processable mash per unit time, saving of energy
- reduced microbiological risk due to reduced contact times, minimization of browning reactions by inactivation of laccase and polyphenol oxidase
- improved pumpability, better pressability, improved passage of the mash through the heater
- improved self-clarifying of the grape must and young wine, improved filtration later on
- higher fruit intensity, wine ageing in a shorter time

Product and Effect

While during mash heating and mash warming the anthocyanins pass in a relatively short time from the fruit cells into the grape must, the dissolving out of the catechins, necessary for the stabilisation of the anthocyanins, usually needs a longer time of heat contact. The same applies to the structure-giving oeno-tannins. The application of Trenolin® T-Stab DF leads to a strongly accelerated extraction particularly of oeno-tannins and catechins being the relevant substances for structure and colour pigments, so that practically hardly any additional contact time is necessary. If the enzyme is added directly into the mill or the grape trough, usually the complete processing time of the grapes is sufficient to obtain a long enough contact time of Trenolin® T-Stab DF. Between the milling, gathering of the mash in buffer tanks, loosening of the press cake and the pressing itself until discharge, at least 2 to 3 hours pass, often up to about 6 hours. This time is sufficient to provide the basis for a successful vinification.

Dosage and Application

Trenolin® T-Stab DF is added in diluted form, best directly continuously into the grape mill or the grape tub. During mash warming in the spiral or tubular heater, the enzyme already starts to react. Under the reaction conditions present during mash warming at 65-75°C, the dosage depends in the main only on the contact time.

Treatment case	Time of dosage	dosage
thin-skinned, resp. juicy berries, e.g. Spätburgunder, Pinot noir, St. Laurent	directly into the grape mill or grape tub	2-4 ml/100 kg
thick-skinned, resp. meaty berries, e.g. Cabernet Sauvignon, Frühburgunder	directly into the grape mill or grape tub	3-5 ml/100 kg

Pectin degradation runs parallelly with the filling of the mash buffer tanks or the press and is mostly completed shortly after the completion of the filling. At the same time, over the entire duration of heat exposure, an intensive maceration takes place which releases the valuable, structure-giving and pigment-stabilising ingredients. The more time is given for this, the better, yet usually the processing time until completed press filling is enough to start directly with the pressing of the mash. The loosening of the press cake then supports the further effect of leaching out. A cooling of the mash is not required, without problem pressing can be conducted at the residual heat of around 65-70°C. Subsequently the grape must is cooled to fermentation temperature and pre-clarified.

Storage

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