Practical Guide to Vinification

No. 2

Safe Alcoholic Fermentation: Protecting the Yeast

Why?

- Simply providing nitrogen and vitamins is not always enough for successful fermentation.
- Introducing unprotected yeasts into an aggressive must.
- Protecting the yeast increases the chances of survival while optimizing the sensory impact of fermentation.

Key Points

UNDER WHAT CIRCUMSTANCES SHOULD THE YEAST BE PROTECTED?

HIGH POTENTIAL ALCOHOL OR LOW TURBIDITY. The protector will increase the yeast's survival rate.

RECURRENT CASES OF SULPHUR-LIKE OFF-ODOURS OR EXCESS VOLATILE ACIDITY. Off-odours can be produced by yeast under stress. Protecting the yeast will reduce this stress.

RISK OF *BRETTANOMYCES* or other contaminants. Protected yeast can better compete against indigenous organisms by reducing the yeast lag phase for a more rapid onset of fermentation, even after cold pre-fermentation maceration.

WHAT DOES A PROTECTOR DO?

A protector is a 100% natural inactivated yeast product that releases survival factors into the yeast rehydration water.

These compounds (specific sterols and micronutrients) are absorbed into the active yeast cells during rehydration and provide them with improved resistance.

Yeast Protection in 4 Steps

1 Recommendations for Use of a Yeast Protector during Rehydration:

Turbidity ↓	Potential Alcohol: low <13% vol.	medium	high >14% vol. →
high >200 NTU	Protection is beneficial	Protection is recommended	**Protection is necessary**
medium	Protection is beneficial	Protection is recommended	**Protection is necessary**
low <50 NTU	**Protection is necessary**	**Protection is necessary**	**Protection is necessary**

- Risk of spoilage organisms
- Infected harvest
- Pre-fermentation maceration
- Yeast with low alcohol resistance

} Protection is recommended, or necessary if there is a combination of risks

2

- To implement yeast protection, Lallemand has developed GoFerm Protect® yeast protector.

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- Add GoFerm Protect® to the yeast rehydration water prior to adding the yeast.
- Dosage: 30 g/hL of must to be inoculated with 25 g/hL of active dry yeast.
- For temperature and volume, please refer to the Practical Guide to Vinification No. 1, "Good Rehydration Practices for Selected Yeasts."

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- Provide good management for the alcoholic fermentation and the nitrogen nutrition of the yeast (Practical Guide to Vinification No. 3). A yeast protector is not a major source of nitrogen.