



**Gold Medal Winner at
2004 Intervitis for
Innovation in Enology!**



GO-FERM® is a 100% biological special inactive yeast, produced through a specific autolysing process on yeast biomass in order to obtain high levels of certain essential vitamins (i.e. pantothenate, biotin), minerals (i.e. magnesium, zinc and manganese) and amino acids.

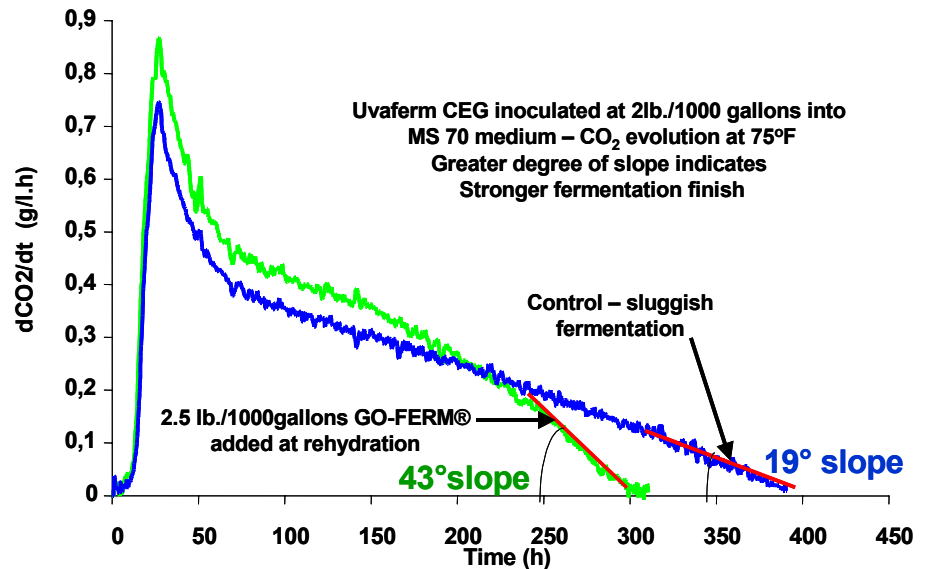
THE NUTRIENT TO USE DURING YEAST REHYDRATION ...

.... FOR COMPLETE FERMENTATION

GO-FERM® was developed as a tool to **avoid sluggish and stuck fermentations**. A slow fermentation finish might promote bacterial and yeast contamination in wine and cause major quality and economic PROBLEMS.

GO-FERM®'s effect is evident at the end of fermentation, where quality risks are greatest. It promotes a significantly higher viability of yeast cells and therefore a quicker and more complete consumption of residual sugars even in high maturity grape musts.

Effect on Fermentation Kinetics of GO-FERM® Micronutrient Addition During Yeast Rehydration
A. Julien, J. Sablayrolles - INRA Montpellier 2001



GO-FERM® provides a small amount of alpha amino nitrogen (about 10 mgN/L for 2.5lb/1000 gallon addition). Supplementation with Fermaid K and DAP in low and medium nutrient musts as well as DAP in low yeast available nitrogen musts is recommended. For best results, couple the use of **GO-FERM®** during the yeast rehydration step with the addition of Fermaid K at 1/3 of sugar depletion during the fermentation.

... FOR SENSORY PROTECTION

GO-FERM® reduces the risks of sulphur compounds and volatile acidity production. High grape maturity and indigenous microbial contamination of musts and juices can cause micronutrient imbalances which lead to off-flavor production, even in high nitrogen musts. **GO-FERM®** encourages an early build-up of the selected yeast's essential reserves of vitamins and cofactors and avoids unbalanced metabolism due to micronutrient deficiency.

GO-FERM® PROVIDES BIOAVAILABLE MICRONUTRIENTS

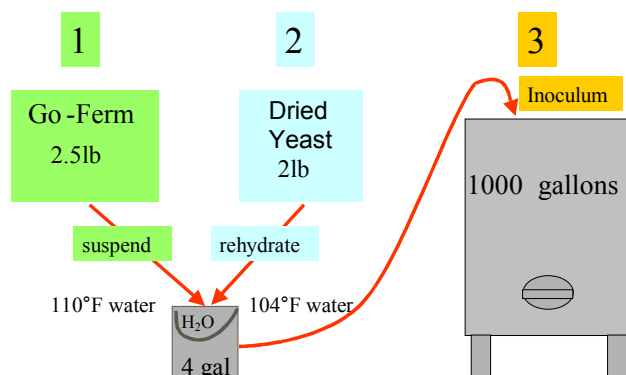
Micronutrients like minerals and vitamins are extremely important to assure the yeast a balanced metabolism. When even one of these compounds is deficient, the yeast metabolism is stressed with potential of producing off-flavors (i.e. sulphur compounds, volatile acidity). In this case the simple supplementation of ammonia nitrogen (DAP) can exaggerate these problems.

Although micronutrient contents in grapes are considered high enough for yeast needs, recent findings show that microbial contamination of the grapes and pre-fermentative processes can lead to **frequent nutrient depleted situations**.

The simple addition of micronutrients to the must is inefficient. Essential **enzyme cofactors** such as Mg, Mn and Zn are tightly chelated by inorganic anions, organic acids, poly-phenols and polysaccharides. Before the inoculated yeast can take advantage of their presence, **vitamins** are rapidly taken-up by indigenous microflora or inactivated by SO₂.

The **GO-FERM®** approach is to add the micronutrients before yeast inoculation into the must. Adding **vitamins and minerals to the rehydration water** increases their **concentration** and **bioavailability** resulting in greater **absorption** to the benefit of the selected yeast strain.

3 easy steps for using GO-FERM®



For 1,000 gal of juice or must:

Step 1: Suspend 2.5 lbs of **GO-FERM** in 4 gal of clean tap water (110°F).

Step 2: Once the temperature has decreased to 104°F, Rehydrate 2 lbs of the preferred dried yeast in this **GO-FERM**/water solution.

Step 3: After 15 to 30 minutes use this suspension to inoculate the juice or must.

Quick reference table for Lallemand integrated nutritional strategy

YANC (Yeast Assimilable Nitrogen Concentration)	At Active Dried Yeast rehydration	At end of lag phase (around 6-12 hours after inoculation)	At 1/3 sugar depletion
> 225 mgN/L	GO-FERM 2.5lb/1000 gal	----	----
125-225 mgN/L	GO-FERM 2.5lb/1000 gal	Fermaid K at 1lb/1000 gal	Fermaid K at 1lb/1000 gal
< 125 mgN/L	GO-FERM 2.5lb/1000 gal	Fermaid K at 1lb/1000 gal and Add DAP to bring total YANC to approx. 150 mgN/l *	Fermaid K at 1lb/1000 gal

*1 lb/1000 gal of DAP contributes approx. 25 mgN/L YANC.

PACKAGING AND USAGE

GO-FERM® is a powder packaged in 22 lb. (4 x 2.5 kg) cartons.

It must be suspended in the rehydration water just before the addition of the active dried yeasts.

GO-FERM® can be suspended in water because it is 100% biological: the use of inorganic salts or DAP in the rehydration water is harmful to the yeast.

The suggested dosage is 2.5 pounds of GO-FERM® and 2 pounds of yeast per 1000 gallons of must to be fermented. If using less or more yeast, respect a ratio of 1 part of yeast : 1.25 parts of GO-FERM®.

STORAGE

When stored at 75°F or lower temperature in sealed packs GO-FERM® maintains its effectiveness for at least 3 years. Avoid moisture and high temperature exposure.

MICROBIOLOGICAL CHARACTERISTICS

Standard plate count < 15,000 cfu/g
Coliform < 10 cfu/g

Distributed By:



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