



## THE BEVERAGE PEOPLE

### REHYDRATING WINE YEAST AND USING GO-FERM®

For many years, standard practice at *The Beverage People* has involved direct pitching of active dry wine yeast. On page 6 of this catalog the procedure for red wine is described and on page 8, white wine is discussed. We still think this is the simplest, most reliable way to assure a prompt and vigorous fermentation of must or juice.

On the other hand, many wine books and magazine articles recommend dissolving the yeast in warm water, allowing it to stand for some minutes, and then adding it to the must. Strictly speaking, such methods—carefully executed—may lead to a higher yeast cell count than just pouring in the yeast. The risk is that if rehydration is not carefully carried out, the risk of killing your wine yeast is fairly high. If the rehydration water is too hot, it will kill

the yeast. If there is too much chlorine in the water, it will kill the yeast. If the temperature difference between the yeast slurry and the must is greater than about 8-10 degrees C (15-18 degrees F), the temperature shock will stun the yeast and, yes, possibly kill it. So we have stuck to the tried-and-true direct pitch method.

As often happens, modern developments have, in some situations, overrun our traditional practice. Wine product supplier Lallemand has developed yeast rehydration nutrients to help avoid sluggish and stuck fermentations. The most popular of these is Go-Ferm®. It is certified organic by OMRI (*Organic Materials Review Institute*). It is a natural nutrient product derived from inactivated yeast. While it contains nutrient value, its use should not alter your regular program of nutrient additions to the must or wine. It may seem counter-

intuitive, but Go-Ferm®, applied early, is intended to improve the late stages of fermentation. When a fermentation faces high initial sugar levels, high potential alcohol levels, or difficult fermentation conditions, the application of Go-Ferm® greatly improves the fermentation of the last few percent of sugar in the must. Instead of a potentially slow or stopped ferment, you get sharp, clean progress to dryness.

So if you are facing difficult fermentation conditions, or just to assure that you prevent a stuck or sluggish outcome, we recommend using Go-Ferm®. Which leads to a modification of our standard advice: you can only use a rehydration nutrient if you rehydrate your yeast! If your fermentation conditions are favorable and you will not be using Go-Ferm®, just add the yeast directly as usual.



# Procedure for Yeast Rehydration with Go-Ferm®

**1** For every gallon of must, suspend 1.25 grams of Go-Ferm® in 20 times its weight of clean, chlorine-free water at 43°C (110°F). At 20 times 1.25 grams, you will be using 25 grams (or, effectively, 25 mL) for each gallon of must. For that same gallon of must, you will later be using 1 gram of yeast. So, for example, for a 10-gram vial of yeast to be used in 10 gallons of must, use 250 mL (8.5 oz.) of water. If the water is not hot enough, the nutrient may not fully dissolve. Since your hot tap water may have chlorine in it, you may prefer to microwave distilled or spring water in a glass measuring cup. Check the temperature carefully before proceeding. Do not add DAP or any nutrient containing DAP to the rehydration water, as it can be toxic to yeast at high concentrations. Use only Go-Ferm®.

**2** Allow the temperature of your slurry to drop to 40°C (104°F). Now add 1 g/gal of yeast and stir gently. For the example we are using, this is when you add 10 g of yeast to the 250-mL slurry. Let the suspension stand for 15-30 minutes, but no longer, as yeast viability will begin to decline.

**3** As noted earlier, we need to avoid temperature shock when pitching the yeast, but we cannot wait longer than 30 minutes to begin feeding the yeast. We meet

these conflicting goals by gradually adding juice or must to the yeast slurry, so be sure you have some of your juice or must at hand as you begin the process. Slowly, over a period of 5 minutes or so, add an equal volume of juice or must to your slurry. For our example, stir 250 mL of juice or must into the yeast and Go-Ferm® slurry. Let stand

for 15-20 minutes while you recheck the temperature of your must. Measure the temperature of the slurry. If it is less than 10°C (18°F) different from the temperature of the must, proceed to step 4. If the difference is greater than this threshold value, add another equal portion of must (another 250 mL in our example). Check temperatures again and either proceed to step 4 or add more must (every 15 to 20 minutes) until the difference is below the 10°C (18°F) limit.

**4** For white wine, add the yeast slurry to the fermentation vessel and then rack in the clarified juice (step 7 on p. 8). For red wine, stir the yeast slurry thoroughly into the must in the primary fermenter (ending step 5 on p. 6).

Sounds like some extra work and care? It is. If you really want to rehydrate but do not want to use a rehydration nutrient, start with water at 40°C (104°F) and begin at step 2, above. However, having made one Sauvignon Blanc that finished a bit sweeter than I intended, I am now a convert. To assure a strong, brisk final fermentation ending in a dry wine, Go-Ferm® rehydration is the way to go.

*When you find yourself with high sugar levels or want to insure a completely dry fermentation, carefully follow these procedures paying special attention to temperature management.*

