

[Past Features of the Month](#)

Home
Products...
Services...
Technical Information...
News & Events...
About Vinquiry...
Contact Us...
Feature of the Month
Site Search
Customer Login

Restarting Stuck or Sluggish Fermentations

Stuck or sluggish fermentations can sometimes be a headache for winemakers. Over the years, Vinquiry has gained a great deal of knowledge on stuck and sluggish fermentations and in conjunction with Lallemand, has compiled recommendations and products to get them restarted. Below are guidelines to help restart a stuck or sluggish fermentation followed by a description of the new product, *Nutrient Vit END*. The encapsulated yeast, *ProRestart QA23*, is another method that can be used for restarts.

Traditional Method for Difficult Conditions

1. Prepare the stuck wine

In order to prevent the growth of spoilage organisms, Vinquiry recommends the addition of SO₂ in the form of **Efferbaktol Granules** and/or lysozyme in the form of **Lallyzyme Lyso** or **LysoEasy**. **Yeast hulls** or **Nutrient Vit END** should also be added at 25 g/hL to remove potential inhibitory substances in the wine. Suspend the yeast hulls or Nutrient Vit END in warm water and gently stir the suspension into the stuck wine. Allow the yeast hulls or Nutrient Vit END to settle for 48 hours, then rack or filter.

2. Select and rehydrate yeast

Select a strain that is both alcohol tolerant and a vigorous fermenter, such as **Enoferm L2226**, **Enoferm QA23**, **Uvaferm 43**, or **K1(V-1116)**.

Calculate the amount of yeast required for the total volume of stuck wine at 2-4 lb/1000 gallons. Rehydrate this amount of yeast in ten times its weight in 105°F clean water (approx. 1 lb yeast/1 gallon water). The use of **Enoferm Protect** or **Go Ferm** during the yeast rehydration step is highly recommended. Increase the volume of rehydration water by 2 and use a dose of 2.5 lb/1000 gallons Enoferm Protect or Go Ferm. Add the yeast slowly to the water while stirring to avoid clumping. Allow to stand for no more than 30 minutes before addition to initial wine/water mixture.

3. Activate the rehydrated yeast with nutrients and sugar

The nutrient content of the stuck fermentation will be low and unable to support adequate yeast growth. In addition the culture will require adaptation to the alcohol content of the wine.

Prepare the following initial mixture:

2.5 % of volume of stuck wine (25 gal/1000 gal)

2.5 % of volume as water (25 gal/1000 gal)

2 - 4 lb **Fermaid K**/1000 gallons of wine/water mix (100-200 g/100 gal)

Adjust sugar level of this mixture to 5°Brix with juice, concentrate or sugar (40 lb sugar/100 gal wine/water mix).

4. Start the fermentation and add the stuck wine in batches

Add the rehydrated yeast to the wine/water mix and maintain the temperature at 70°-75°F.

Monitor the sugar level of the starter. When the sugar level has dropped by half (<2.5°Brix), begin to add the stuck wine to the starter. Add in batches of 20% of the total stuck wine volume (total of five additions to the starter). When the sugar has decreased by half, add the next batch.

When starting stuck fermentations in barrels, the above activated starter can be apportioned to 20% of the barrels, expanding the number of barrels at each stage.

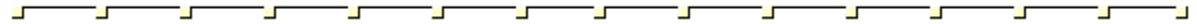
Nutrient Vit END

Nutrient Vit END is Lallemand's latest development for treating stuck and sluggish fermentations. The presence of short and medium chain fatty acids and residual fungicides is a possible cause of low yeast viability that can lead to stuck or sluggish fermentations. Nutrient Vit END is a specific inactivated yeast which has high bio-absorptive properties for these fatty acids and fungicides, along with waxy and soapy aromas. Nutrient Vit END can be used at 40g/hL before the rescue yeast is added, or in place of yeast hulls in the method for difficult conditions described below. Please see the **Nutrient Vit END** technical sheet for more information and usage instructions.

ProRestart QA23

Another method for restarting a stuck or sluggish fermentation is to use the encapsulated yeast, ProRestart QA23. The yeast cells are encapsulated within natural polysaccharides and are acclimatized to alcohol and other harsh conditions. The ProRestart "beads" come in 1kg packages for both barrel and tank applications. The beads must be preconditioned (rehydrated in a sugar solution) before addition to the stuck wine. ProRestart handles easily compared to the traditional method and works quickly because of the preconditioning step and direct addition into the stuck or sluggish fermentation. More information and full instructions are available by following the link, [ProRestart QA23](#).

Vinquiry's technical staff is available by phone if any questions arise; 707-838-6312.



Past Features of the Month

[September 2007 - Subliwhite](#)

[August 2007 - Juice Panels](#)

[July 2007 - YSEO yeast](#)

[June 2007 - Instrument Calibration](#)

[May 2007 - Adams Tannin Assay](#)

[April 2007- Laboratory Set-Up](#)

[March 2007- PCR Analysis](#)

[February 2007- ISO Accreditation](#)

[December 2006- Lab Equipment Sale](#)

[November 2006- Restart Stuck Fermentations](#)

[October 2006- Malolactic Bacteria](#)

[September 2006- New Yeast](#)

[August 2006- Juice Analysis Panels](#)

[July 2006- Thermo Orion Meters](#)

[June 2006- Sparkling Wine Products](#)

[May 2006- Ochratoxin Analysis](#)

[April 2006- Calibration Services](#)

[March 2006- Sensory Services](#)

[February 2006- Fining Trials and Products](#)

[January 2006- Unified Symposium](#)

[December 2005- Efferbaktol SO2 Granules](#)

[November 2005- ML Bacteria](#)