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Recommended Method to Restart Stuck Fermentations

When restarting a sluggish or stuck fermentation, yeast biomass build-up is as essential as good nutrition. Generally, the nutrient content of a stuck fermentation will be low and inadequate to support yeast growth. Adding an appropriate yeast rehydration nutrient (GoFerm or Dynastart), that is rich in micronutrients and survival factors, to the rehydration water increases their bioavailability to the selected yeast strain and results in an increase of biomass. Consequently, the selected re-start yeast can acclimate more easily to the potentially hostile wine conditions (including high alcohol and low temperature). When residual sugar levels remain high, an addition of Fermaid K directly to the stuck wine is recommended. Spoilage organisms like *Lactobacillus* and *Pediococcus* can compete for nutrients and in doing so, release metabolites that inhibit yeast growth. Adding lysozyme to the stuck wine prior to restarting the fermentation, may also help eliminate the unwanted bacteria and provide a cleaner environment for the new yeast culture to ferment in. Adding yeast hulls to the stuck wine prior to restarting the fermentation may help reduce accumulated toxins and clean up the wine.

For Wines Stuck at >3° Brix:

BUILD-UP

1. Select a yeast strain that is both alcohol tolerant and a vigorous fermenter such as Uvaferm 43, ICV-K1(V1116) or Actiflore B.
2. Calculate the amount of yeast required for the total volume of stuck wine at 3-5 lb/1000 gal.
3. Calculate the amount of appropriate yeast rehydration nutrient (Dynastart or GoFerm) at 1.25 times the amount of yeast to be used. Dissolve the yeast rehydration nutrient in 20 times its weight of clean, chlorine free, 43°C (110°F) water. (Example: 5 lb yeast rehydration nutrient x 20 = 100 lb, divided by 8.33 lb/gal = 12 gal water needed). Mix the solution gently. Allow the solution to cool to 40°C (104°F).
4. When the yeast rehydration nutrient/water solution temperature has cooled to 40°C (104°F), slowly (over 5 minutes) add yeast. Stir gently to mix and avoid clumping. Let suspension stand for 15-20 minutes.
5. In the meantime, mix equal volumes of stuck wine and water. Generally, this would be 5% of the total wine volume.
6. Add 2 lb/1000 gal yeast residues (yeast hulls) to the stuck wine. If appropriate yeast rehydration nutrients (GoFerm or Dynastart) are **NOT** used, add 1.0-1.5 lb/1000 gal of complete yeast nutrient (Fermaid K) directly to the stuck wine. If yeast rehydration nutrients **ARE** used, add 0.5-1.0 lb/1000 gal of a complete yeast nutrient directly to the stuck wine.
7. When the yeast suspension is ready, add it to the mixture created in Step 5 and wait 20-30 minutes.

ACCLIMATION

8. Add 10% of stuck wine to the starter culture, and wait 20-30 minutes.
9. Add 20% of stuck wine to the starter culture and wait 20-30 minutes.
10. Repeat Step 9, 2-3 more times to help acclimate the culture to both temperature and alcohol.

INOCULATION

11. Add the culture to the stuck wine.

For Wines Stuck at 1-2° Brix:

See protocol listed above, except in Step 6 –reduce the complete yeast nutrient addition to 0.5 lb/1000 gal.

For Wines Stuck at <1° Brix:

See protocol listed above, except in Step 6 -eliminate the addition of a complete yeast nutrient.