

NC PRE-HARVEST 8/4/20

JUICE PREP AND YEAST INOCULATION

1. Whites:

Either direct to press or de-stem and then to press.

Some varieties have aromatic benefit from limited contact with skins.

Pectinase enzymes may be used to speed extraction (of juice and aroma) and settling.

SO₂ addition: 50ppm is typical. If co-inoculating for ML, ≤30ppm.

Clarification of juice (1-2% solids if clean; complete clarification if infected).

24 hour settling is typical.

Acid/pH, tannin corrections.

SIY (Specific Inactivated Yeast) additions (Glutastar*).

Reds:

De-stem into fermenter.

Macerating enzymes added.

SO₂ addition: if co-inoculating for ML, ≤30ppm.

Acid/pH, tannin corrections.

SIY additions.

2. Yeast rehydration and inoculation:

- a. Suspend 30 g/hL (2.5#/1000 gal) of rehydration nutrient in 20 times its weight of 110°F (43°C) non-chlorinated water.
- b. When temperature reaches 104°F (40°C) suspend yeast in mixture (remove lumps). Certain yeasts recommend lower temperatures. Double check instructions.
- c. Wait 20 minutes, no longer.
- d. Slowly add an equal amount of juice to yeast mixture and stir gently to acclimate yeast to temperature difference.
- e. Wait 15-20 minutes, then measure temperatures of juice and yeast. If difference is less than 18°F (10°C), add yeast to juice and stir in.
- f. If difference is greater than 18°F, repeat the acclimation steps above.

CHOOSING THE RIGHT YEAST

The yeast should be chosen based on grape variety, desired wine style, and the condition of the grapes. Suppliers will have descriptions of the characteristics of their yeasts that will help in the decision.

1. Grape variety

- a. Aromatic varieties may contain aroma-less precursors, such as thiols and terpenes. Choose yeast strains that can convert them to free aroma compounds.
- b. In less aromatic varieties (especially whites), the primary aromatics may be esters, aromatic compounds produced by the yeasts (alcohol x acid). Certain yeasts are high ester producers.
- c. Some red varieties can be high in pyrazines, giving a green, vegetal character. Certain yeasts can diminish pyrazines and accentuate fruit.
- d. Some very high acid varieties benefit from yeast strains that metabolize malic acid, softening the wine.

2. Wine style

- a. Light, crisp whites benefit from aromatic yeast strains. SB needs a thiol-releasing strain. Muscat benefits from a terpene releasing yeast. Riesling and Gewurztraminer can benefit from both. A less aromatic variety, such as Chardonnay, can have aromas boosted by ester producing strains.
- b. Fuller, more savory whites (traditional Chardonnay) can benefit from yeast that autolyzes faster and provides more savory, buttery, nutty characters.
- c. Lighter, fruit-forward reds (often necessary if the weather or grape condition force a premature harvest) are helped by strains that diminish green characters and promote esters and bright red-fruit characters.
- d. Fuller, ageable reds do best with a strain that not only gives aromatic complexity, but provides structure and mouthfeel through production or release of polysaccharides and tannins. These wines are often higher in alcohol. A yeast strain is needed that does well in high alcohol and often higher temperatures of fermentation.

3. Condition of grapes

If the grapes are not in good condition (mold, sour rot, etc.), the important thing is salvaging the grapes and wine. The yeast strain chosen should be very strong (for competition) with a short lag phase (to limit the time that the “bad guys” dominate). Its nutrient needs should be low due to compromised nutrients in infected juice.

YEAST RECOMMENDATIONS

1. Aromatic whites

Sauvy—brand new. Very high thiol releaser, especially 4MMP (in SB, citrus, grassy, boxwood).

Exotics Novello—also new. Aromatic hybrid for both white and red (esters and thiols), high in polysaccharides.

CVW5—High ester producer. Very vigorous, but very low nutrient demand.

2. Fuller whites

CY3079—standard for CA style chardonnay. Faster autolysis during lees aging.

VIN2000—aromatic and non-aromatic varieties. Good for barrel fermentation.

3. Light reds

Alchemy IV—very fruit-forward. Diminishes green and elevates terpenes.

Exotics Novello—see above.

4. Heavier ageable reds

Clos—one of the all-around best for big, structured reds with varietal differentiation.

Alchemy III—blend of yeasts producing well-structured, fruit-forward, full-bodied reds.

*Glutastar—Inactivated yeast, highest in reduced glutathione (anti-oxidant). Added at the juice stage.