

Winemaking Case History

2010 Western Iowa Sweet Edelweiss

[Faux Sauternes]

Fruit source: Doug Grave, [Victorian Vineyards](#), Glenwood, Iowa (Loess Hills).
Picked-up 15 gallons of pre-settled juice on Saturday, August 14, 2010
Juice pails packed in ice and transported 100 miles to Vermillion, SD

Stylistic goals: Originally looking to see if a bone dry wine akin to Chablis or unoaked Chardonnay could be crafted from early-harvest (*sans* “foxiness”) Iowa Edelweiss grape juice. Although that goal was achieved with another batch of wine made from this juice (Batch-B; 58W3 yeast with cold fermentation), this wine did not yield a profile that was compatible with a dry style. Instead, the wine was ultimately back sweetened with neutral white grape concentrate to yield a pleasant dessert style wine somewhat reminiscent of a generic Sauternes.

Prefermentation numbers:

BRIX = 14.2 TA = 8.0 g/L pH = 3.38 Batch volume = 5 gallons

Yeast selection: Cote des Blancs

(Chosen to supply complementary complexity to **58W3** batches made from the same juice)

Winemaking Procedures

Prefermentation Adjustments

8/14

5 gallon batch used here; transferred to a 6 gal carboy
Juice sulfated at 50 PPM to inhibit spoilage yeast/bacteria

8/15

Chapitalization

Since Edelweiss is harvested early to prevent the development of characteristic “foxy” flavors, chapitalization was necessary. A target alcohol level of 11% was selected based upon stylistic considerations.

sugar addition (lbs/gal) = $0.125(\text{Target BRIX} - \text{Current BRIX}) = 0.125(20-14) = 0.75 \text{ lbs/gal}$

5 gal x 0.75 lbs/gal = 3.75 lbs sugar (7.5 cups) Added as syrup.

Final BRIX = 20

Adjunct Additions

Fermaid K yeast nutrient – 1g/gal x 5 gal = 5g Fermaid

OptiWhite – 1.9 g/gal x 5 gal = 9.5g OptiWhite

Sun-8/15-3PM

Yeast hydration/pitching protocol

50 ml tap water at 110°F; dissolved 1 tsp GOFERM; wait for temperature to drop to 104°F
add 10g of Cote des Blanc yeast; wait 10 minutes; add 50 ml Edelweiss juice; wait 5 min;
pitch yeast; juice temperature at pitch = 64°F

Fermentation

Sun-8/15-3PM

5 gallons of inoculated juice in 6 gallon glass carboy fitted with “**blow-off**” tube assembly
and placed on rubber mat in the wine cellar.
Original Brix = 20; temperature = 64°F

Tue-8/17-10AM

Some H₂S stink observed; stirred for 1 min to “blow-off” H₂S.

4PM

Significant reduction in H₂S notes.

10PM

Double splash-racked for H₂S mitigation.

Wed., 8/18 10AM

H₂S significantly diminished (very encouraging)

Thurs., 8/19 8AM SG=1.002

10PM SG = 0.989

Fri., 8/20 10PM

very little bubbling

SG = 0.989 (unchanged for 24 hours)

Mon., 8/23

First racking (topped-off with Edelweiss from Batch-A)

Added 40 PPM SO₂

Lysozyme treatment (dosage: 1.1-1.9 g/L to inhibit MLF)

Added 6g Lysocid (Lysozyme) dissolved in 100ml water until clear

Post Fermentation Processing

Sat., 10/2

Racked and topped-off; sweet/fruity white lees

free SO₂ = 10 PPM; 30 PPM added to bring up to 40 PPM

Filtered hazy wine thru 1 micro canister filter; resulting wine has distinct green hue
but wine still hazy (Will definitely need to be fined)

Sun., 10/3

Added 0.5 g/L bentonite (as 5% slurry)

Sat., 12/11

Wine still hazy (Was it a mistake to leave on the bentonite for so long?)
Placed in freezer chest for cold stabilization and lees compaction (20 deg F).

Sat., 1/1/11

Removed wine from cold stabilization.
Thick tartrate crust over a layer of creamy brown fine lees.
Topped-off with 1L of NY state Vidal (Moundtop) wine
Free SO₂ = 7 PPM; bumped up to 30 PPM

Fri., 3/11/11

Preliminary Taste Evaluation

Unbalanced; a bit thin/acidic and somewhat "hot" (i.e., high alcohol)
Plenty of Edelweiss varietal aroma/flavors; no "off" odors
Wine is still noticeable cloudy (and will need remediation)
Rx: This wine will not make it as a dry wine. Will need to back sweeten with grape concentrate.

Fri., 5/6/11

Wine still a bit hazy

Sat., 5/7/11

Back Sweetening Trials

Used "White Grape Concentrate" from Global Vintners (British Columbia) to sweeten
(68 BRIX; neutral concentrate)
Best dosage = 16 ml concentrate added to 100 ml wine sample (approx.. 10% sugar added)

Preparation for Bottling

Transferred 3gal wine to a 5 gal carboy
Add 1800 ml white grape concentrate and stir
Add 2.6 g K-Sorbate ((200 mg/L x 13L) and stir

free SO₂ = 37 PPM

TA = 7.5 g/L

pH = 3.55

bump SO₂ up to 50 PPM

%Alc = 10.8% (distillation/hydrometry)

Residual sugar (Clinitest) results:

using 5:1 dilution got a "solid 3%" (yielding est. of approx.. 15%...seems too high)

fine haze with Super Kleer (2/3 dose)

Kieselsol; wait 1 hour; chitosan; wait 48 hours to clear
rack to 3gal carboy and ½ gal jug.

48 hours later; wine has cleared extremely well

Gravity Bottled:

5 x 750 ml bottles; 21 x 375 ml bottles

labeled as "2010 Iowa Sweet Edelweiss (Faux Sauternes)"

Tues., 8/2/2011

Release Tasting Notes

Appearance: Clear, light yellowish-green straw color
Nose: Pear, pineapple and floral notes
Flavor: Sweet yet lively pear, peach, tropical fruit notes
Mouthfeel: Smooth, creamy but not quite unctuous
Finish: Brief, clean, sweet peach finish
Overall: A pleasing dessert wine that should be made again; aim for unctuous mouthfeel