

7-22-2015

Erath Notebook

Dick Erath

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07-08

3-11-25
135
9/15-75



MADE IN U. S. A.

**80 SHEETS-NARROW
RULED
28 LINES
EYE-EASE®
PAPER**

NAME

STOCK

SUBJECT

NO. 33-002

BILL WOOD YU. 2-6540
KE. 4-7263

Gourmet Fair
2181 Union

17
12
34
3
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209

134 47 +1 94 15 17

Varian Am

Bo
Wormads

Kayser Rottle

209

LIE
LAY
HAS LAIN } TO RECEINE

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HAS LAYED } TO PLACE

BREW I

26 MARCH 1964 BREW DATE
3:5 GAL BATCHES

BATCH 1 DARK MALT EXTRACT
5+ GAL WELL WATER
3 LBS CORN SUGAR
8 OZ BREWERS YEAST
1 TSP SALT (IODIZED)

BATCH 2 LIGHT MALT EXTRACT
5 GAL DISTILLED WATER
3 LBS CORN SUGAR
8 OZ BREWERS YEAST
1 TSP SALT (IODIZED)

BATCH 3
LIGHT MALT EXTRACT
5 GAL EBMUD WATER
3 LBS CORN SUGAR
8 OZ BREWERS YEAST
1 TSP SALT (IODIZED)

DATA:

- 1) YEAST* ADDED AT 8:30 PM.
- 2) AMBIENT T° = 16°C 10:00 AM
- 3) WURT T° & S.G.

* FOURTH GENERATION

BATCH	1	57° 5%	56° 6%	57° 3%	60° 1.5%
	2	58° 5.2%	56° 5%	57° 3%	60° 1.5%
	3	58° 5.1%	56° 4.5%	57° 3%	60° 1.5%
		3/26 10:30 PM	3/27 5:00 PM	3/28 7:30 PM	3/29 11:30

4) BATCHES 3 & 2: FROTH HEAVY AND "SUDSY". BATCH 1 & MUCH LIGHTER FROTH. ALL BATCHES THROWING UP DARK RESIDUE WHICH STICKS TO TOP OF FROTH. FROTH SKIMMED FROM ALL BATCHES 3/28 1:30 PM

- 5) FROTH SKIMMED 3/28 7:30 PM
- 6) " " 3/29 11:00 AM
- 7) " " 3/29 5:00 PM
- 8) " " 3/29 11:30 PM

BOTTLED 8-9 PM 3/30/64

4 VARIATIONS OF THE 3 BATCHES PRODUCED THE FOLLOWING COMBINATIONS:

56°	1%
56°	1%
56°	1%

- 1) PLAIN
- 2) PLAIN + 1/4 tsp SUGAR
- 3) PLAIN + " + 1/4 tsp BAK. SODA
- 4) PLAIN + BAKING SODA

3/30
7:30

BATCH	1	2	3	4
1	A	D	G	J
2	B	E	H	K
3	C	F	I	L

BREW II 5/11/64

2:5 GAL BREWS
 9 lbs Malt extract
 9 lbs corn sugar
 Dry hop. 1oz in sack

BATCH	1	2	3	4	5	6	7	8	9	10
	57°	8	62	7.5	62	5.5	59	4.5	60°	2.3
WALS							59	2.5		1.8
2	56°	7.5%	62	7.0	62	5.0	59	3.2		2.0
	5/11/12PM		5/13 6PM		5/14 11PM		5/15 6:30 PM		5/16 4P	

British Balling 7.5% B₂ %

Hops added 12 PM

5/12 Yeast bad no fermentation apparent

11 PM 1 PKG Red Star yeast added to each batch

5/13 6 PM Fermentation well under way - skinned as read

	SG	T°	SG	T°	SG	T°	SG
1	1.8	60	60°	1.3			
Waltz	1.3	60	60	.75			
2	1.5	60	60	1.0			

5/17 3 PM

5/18 8 PM

Brew III of UP

750th Series

4825
4075

750 730
20

185

92

93 gm Sodium Bisulfite

Must @ 70 12 1/2

White Wine - Semillon

EVERY HOUR Oct 2nd 1965

Date: Oct. 3 Weight: 750#

Began Crushing at 10 AM
finished at 4 PM.

Used Champagne Yeast
Started in 2 gal. of (14#)
"Finger" grapes. (juice of)

Added 93 gm. of Sodium
Bisulfite dissolved in 2
1 gal H₂O.

Added yeast to must at
12 midnite 3 Oct.

First sign of fermentation
detected (heard CO₂ in barrel)
9 PM 6 OCT 1965 (barrel #1)

Initial Balling 25°

over)

Added most of the grain
properly in the
trailer

Balling	T°	DATE
12.5	67°	3 OCT
12.0	68°	7 OCT
11.0 -	68.5°	8 OCT 0030

(removed 4 Gal to stop overflow)

10.5	68+°	8 OCT 0800
8.5	74	8 " 1800
7.0+	75°	9 " 0030
6.0+	75°	9 " 0830
5.5	74°	9 " 1530
5.5-	73°	10 " 0030
4.0+	72°	10 " 1030
4.0-	72°	10 " 2330

Added 4 Gal @ 4.5° B

PH 2.5	69°	11 " 0830
2.0+ Tr	70°	11 " 2200
3.0+ 1.0+	68°	12 " 2200
1.0-) .sanita	68°-	13 " 2200
0.5	67°-	14 " 2200
0.0-	61° (5 gal)	15 " 2000
0.0	63°	16 " 2000
0.0-	62°	17 " 2300
- 0.7 0.7 trailer	62°	19 " 2200
- 1.0 1.0 trailer	-	21 " 2300
- 1.8 2.5 "	62°	23 " 1930
- 2.0 4.0 "	62	27 " 2300

Tralles	T°	Date - Time
4.0+	69°	11/16/65 2000

Racked into barrel # 2 and
fined w/ bentonite - 1 gm / gal
5° Tralles 11/7/65
Racked into barrel # 1 11/20/65

Red Wine

6 BOXES ZINFANDEL

5 " PETITE SIRAH

5 " BLACK MAZARISA

Source: Pete Giocchio Land
Yonacino Valley

Received & crushed grapes

22 Oct 1965^{2PM} Added 90 gm
Sodium Bisulfite diss. in 8oz
H₂O. Partially removed
stems. Added 3 gal yeast
starter to each batch

"A" batch in 50 gal barrel

"B" " in 40 gal wash tank

Initial Balling 24+ (26?)

PH - $2.3 < 3.5$

DATE	Time	B°		to	
		A	B	A	B
23 Oct	1300	13°	13°-	66	66
24 "	1400	NT	11°	70	70
24 "	2300	8°	8°-	79	80
25 "	1230	2.5	1.5+	85	90
25 "	1830	1.0	0.5	86	90
25 "	2300	RACKED INTO CLOSED FERMENTER Barrel #3			
26	2230	-1.0+	Small quantity	73°	
28	2230	-1.0		65°	
13 Nov	1900	-1.5		60°	
16 "	1900	3.0+		60°	

finest into barrel #6 11/13/65
w/ 1 gm benzoate/gal

Racked into barrel 11/21/65

Red Wine - Zinfandel

700# irrigated Zn. from Lodi
Picked & Crushed 30 Oct.

$\frac{1}{2}$ skin & pulp pressed. Add
120 gm sodium bisulfite. Add

160 oz yeast starter to each
batch, Partially stemmed

"A" batch in 50 gal barrel

"B" batch in 40 gal work tank

Initial Balling (13.5) / (12.5)

Pr > 3 < 3.5

First sign of fermentation
detected 11/2/65 in "B" batch

Date time

		B ₀		T ₀	
		A	B	A	B
31 Oct	1100	13.5	13.5	65	65
4 Nov	2000	13.5-	12.5	62-	63
5 "	0800	NT	NT	62	66
5 "	0600	NT	10.0+	NT	70
5 "	2200	11.0+	NT	66	72-
6 "	0830	NT	NT	66	70
6 "	1800	8.5	6.0-	68	72+
7 "	1730	6.0+	3.0+	70	72
8 "		3.0	1.0-	72	74
Racked into Bannell #5					
9 "	0000	1.5		NT	
11 "	2330	-1.5-	?	60°	
16 "	1900	-1.0+		60	

Racked into Bannell #6 12/25
 165 w/ bentonite at a ratio
 of 1 gm/gal (3.5% solution
 per 5 gal)

Racked into Bannell #5
 1/4/66 for aging,

$$1 \text{ he} = 26.4 \text{ gal}$$

$$\begin{array}{r} 0 \\ 128 \\ 6 \\ \hline 768 \end{array}$$

$$\begin{array}{r} 800 \\ 27618 \\ \hline 3 \\ 230.4 \text{ ml} \end{array}$$

log

$$1 \text{ l} = 1.057 \text{ qt}$$

$$\begin{array}{r} 16 \\ .033 \\ 32 \overline{) 1.057} \\ 96 \\ \hline 97 \\ 128 \\ 6 \\ \hline 8 \end{array} \quad \begin{array}{l} \text{log} = 3.33 \text{ ml} \\ 2 \text{ gal/gal} \end{array}$$

$$\begin{array}{r} 23. \\ 33 \overline{) 768} \\ 66 \\ \hline 108 \\ 99 \\ \hline 90 \end{array} \quad \begin{array}{r} 1.5 \\ 2.3 \\ \hline 3.8 \end{array}$$

$$\begin{array}{r} 1.5 \\ 9.2 \\ \hline 10.7 \end{array}$$

WHITE MALVAKIA

2,60# picked and crushed
& pressed 10/31/65 some
Riegling's 10gm Sodium Benzoate
added to must.

Balling = 15 (30⁰ sugar)

pH = 3.5 to 4.0

pH adjusted 3.5

Buffer sol: 2gm Tartaric in
1oz H₂O at a rate of
3 ml / 10oz to must

$$\left(\frac{3}{33}\right)(2)(128) = 23 \text{ gm/Gal}$$

Yeast Starter Added
3oz/Gal 3/11/65

Fermentation started 11/5/65
1200, placed in refrigerator
11/5/65 2000 45°F.

DATE - Time	F°	B°
11/11/65 2400	38°	7.5
11/16/65 2000	38°	6.5
Racked into 5 gal container w/ 3.5 oz bentonite solution (1800/gal)		
11/19/65 2300	38°	* 7.0
* because was mixed		
11/21/65 2200	32°	7.0-
11/25/65 1200	31°	6.0-
12/7/65 2330	31°	5.5
1/8/66 2245	35°?	3.5+

Barbeca

~ 120# picked & crushed 11/1/65
10gm sodium bisulfite added
to must

Balling = 13-26%

At 73 & 3.5

Yeast starter added 11/3/65
at 3g/gal 1300

DATE - TIME	BALLING	FO
11/4/65 2030	12.5	62°
11/5 0800	NT	64°
11/5 2200	7.0	76°
11/6 0830	NT	65°
11/6 1800	2.5	66°
11/7 1730	- .8	64°
11/11 2330	-1.5 - (2.0) ^{trial}	60°
11/13 1800	-2.0 - (3.0)	60°
11/16 1900	-1.5 - (3.0)	60°
11/19 2300	-2.0 + (3.5)	60°

lined w/bent. 1 gm/gal. and
racked 11/19

ADOLPH GASSMAN
ER
6

2.5

Camera
Repair

Sauvignon Blanc

165

~ 80# picked & crushed & pressed
11/2/65, 7 gm sodium bisulfite
added to must

Balling = 11.5 = 23% (*)

PH = 3.0 +

Yeast Starter added 37/gal
1300 11/3/65

Fermentation started 2000 11/4/65

DATE	TIME	BALLING	F ^o
11/5	2200	10.5	61°
11/6	1900	9.0	60°
11/7	1200	6.0-	64°
11/9	2300	-1.5-	60°
11/13	1800	-2.0 + (3.0st)	60°
11/16	1900	-2.0 + (3.5st)	60°
11/19	2300	-2.0 +	60°
fined (1 gm Bentonite/gal)			and
racked 11/19			

PINOT CHARDONNAY 1966

SOURCE: ROBYHILL VINEYARDS

BOOTH PICKED 10 SEPT '66

DATA: FREE RUN PLACED IN EQUAL AMOUNTS IN #1 & #2 POLY TANKS, PRESSER IN #3

PH > 3.0 < 3.5

FIRST SIGN OF FERMENTATION 9/18/66 MORNING

DATE	TIME	BALLING			TEMPERATURE		
		1	2	3	1	2	3
9/12/66	1530	22.4	22.4	22.4			
STARTED		21.54	21.5	21.54	63	64	63
1 = 35.02							
2 = 35.12		CHAMPAGNE VARIETY					
3 = 28.02							
9/20/66	0115	20.0	19.0	14.0	68	71	76
9/21/66	2100	14.2	12.5	4.0	76	77	79
Racked into Barrell #2 and fined with Bentonite at a rate of 1oz of a 5% solution per gallon on 9/25/66							

1966 ZINFANDEL - LODI

Source: Pick ^{Rose} HUGHES; Picked on
9/19/66, Crushed 9/19 & 9/20
Berries in bad condition, lots of
bunch rot, sulfited at rate of
2 1/2 oz / 10 gal. must.

Yeast added (Champagne) 9/22 1100

Only 1/4 skins retained for fermentation

Date	Time	1	2	3	1	2	3
		Balling			T°		
9/21	2130	21.5	220	21.5	65	64	64

Fermented at a rapid rate

maximum T° = 78°F

racked and fined with Bentonite
at a rate of 1 oz per gal of a
5% solution

Chemin Blanc, 14 boxes

Source: Fetzer Vineyards # @ 41# = 560#

Picked on 10/8/66? Crushed on 10/8/66. Allowed to steep on skins and stems overnight, pressed on 10/9/66. Sodium Bisulfite added at a rate of $\frac{2}{3}$ oz/10 gal.

pH = 3.0 < 3.3

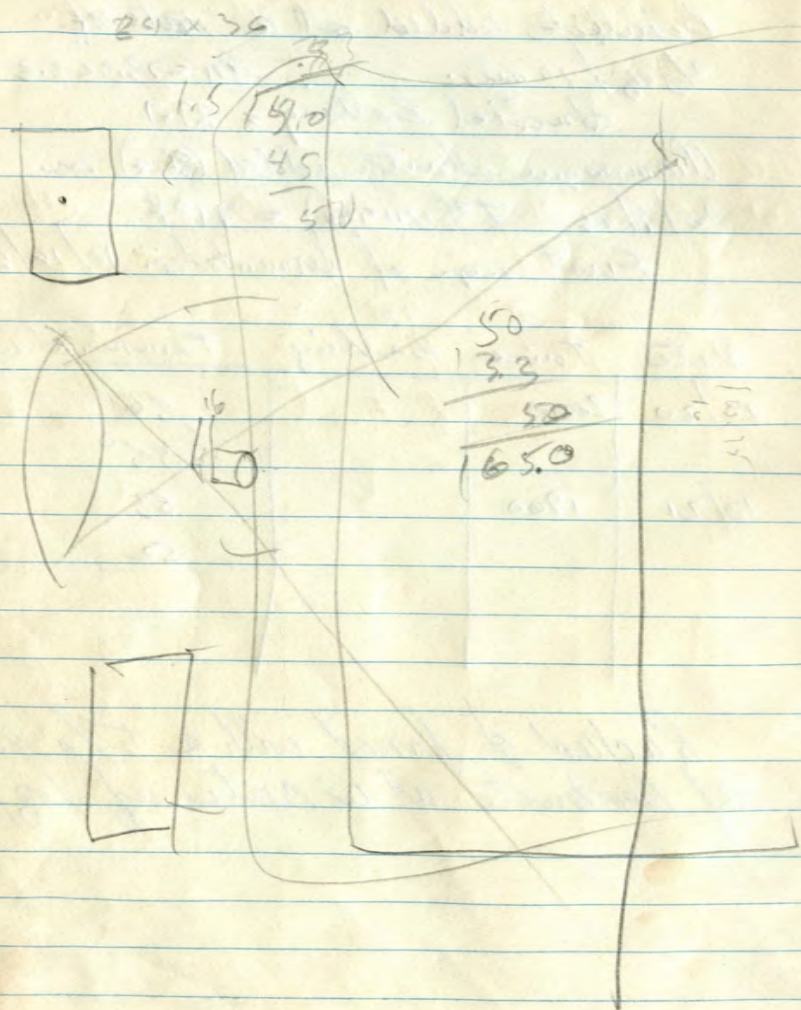
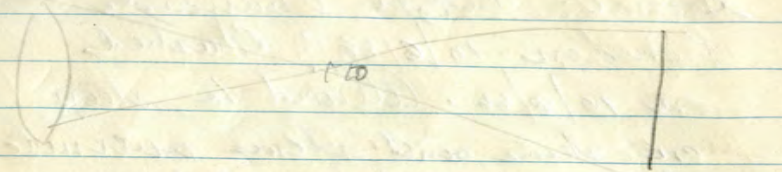
Adjusted Balling = 27.7

Champagne starter added (96oz) on 10/9/66 $T^{\circ}(\text{INITIAL}) = 71^{\circ}\text{F}$

First sign of fermentation 10/16/66

Date	Time	Balling	Temperature
10/20	2000		56°
			55°
10/21	1800		53
			52

Racked & fined with a 5% sol of Benzoate at a rate of 1oz/gal

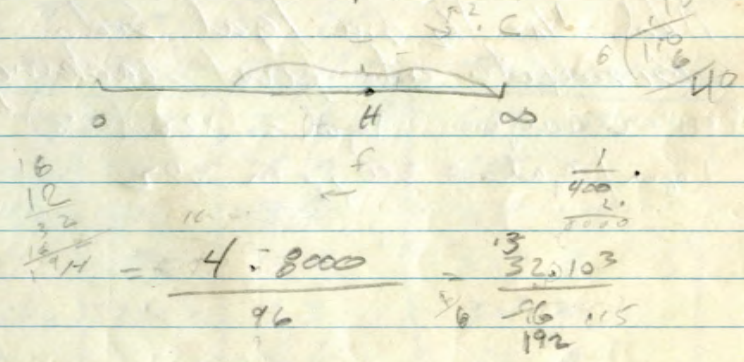


$$H = \frac{f^2 \cdot C}{12f}$$

∞ 30 10 7 5
 $\left| \begin{array}{c} 16 \\ 16 \\ 16 \\ 16 \end{array} \right|$
 200

where F = focal length of lens
 f = aperture
 C = diameter of circle of confusion (diameter of)

Answer in ft.



at f8 a 2" lens

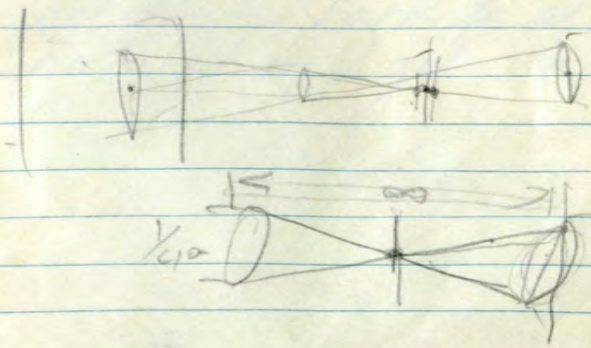
f16

f32

80' → ∞

75' → ∞

37.5' → ∞



A 5% solution of Benlate

10g / 20g H₂O

3×10^{-4} 3×10^{-4} 3×10^{-4}
10000 30000 30000

$\frac{128}{28}$
 $\frac{1024}{256}$
 $\frac{3584}{}$

Add 1/4 - 1/2 gm / gal Sod.
Bisulfite at first racking

Fesler says 1 gal = (128)(28)
1 gm / gal = 300 ppm 302

$\frac{1}{10}$ 30

$\frac{3}{285}$
6 gm
11.0

'66 Cabernet Sauvignon

Source: Fesler Vineyards 854#

Picked on 10/7/66. Crushed
on 10/9/66. Sodium Bisulfite
added at a rate of 1/5 oz / 10 gal
Initial Balling = 22.5 PH = 3.043.2

Champagne starter added (16oz) on
10/9/66 90% of stems removed at
First sign of fermentation ^{crushing} 10/10/66
T° (INITIAL) = 70°

Date	Time	Balling	Temperature
10/11/66	2100	21.4	60° WT
10/12/66	1800	18.0	68° WT
10/13/66	1800	12.9	63° WT
"	1:10	15.4	60° B
10/16/66	2350	1.3	56° WT
"	"	4.4	62 B
		4.5	59 Poly

Racked and fined with a 5%
solution of Benlate at a
rate of 10g / gal. ~ 10/26/66

Y66 PALAMINO

Source: Pete Giocchio

Crushed on Nov. 5th.

Sodium Bisulfite added at
a rate of $\frac{1}{2}$ oz / 100 gal

Initial Balling = 20.5

pH = 73.0 \pm 3.5

DATE / TIME	T ^o
11/9 -	56
11/10 AM	57
11/10 PM	58
11/11 AM	62
11/12 AM	64
11/13 PM	65

Racked and fined with a 50%
sol. of bentonite at a rate
of 1 oz / gal

167
WHITE RIESLING

Source: Ruby Hill Vint Vineyard
Picked on 16 Sept. 1967 190+² 100#
Layed out 2 days and crushed
on the evening of the 18th
Boiling increased to 21°. Left
on skins overnight to drop
t° and allow further breakdown
of gelatinous materials. Added
initial B° 21.0 ½ gal yeast
PH 3.2 starter 8:45 on 9/19
@ 61°
Pressed off juice 9:00 PM on 9/20
and put into 5 gal Carboys

9/19	21°	MAX T° = 57°
------	-----	--------------

167 GAMAY BEUSALAIS

Produced 9/29/67 Fetzer
 $\approx 20\#$ Crushed 9/25/67 1730

Balling = 23

Acid ≈ 3.3 PH

Highest $T^{\circ} = 71^{\circ}F$

-0.5° @ 9/30/67

'67 FLORA

Picked 9/29/67 Fetzer

~ 50#. Crushed 9/25/67 10^{min}

Balling = 21.0 \downarrow ← INTERPOLATED

Acid = 73.0 < 9.5

167 PINOT MEUNIER

Picked 9/24/67, Fetzer

~ 85# crushed 9/25/67 11³⁰

Balling = 23.5

Acid =

Highest t_0 = 73°F

0° Balling 9/30/67

'67 SAUVIGNON BLANC

Picked 9/24/67 Felzer

~100% Crushed 9/25/67 11 PM

Balling = 19°

Acid ~~3.1~~ < 3.3

67 Semillon

Source: 1008 Hutchinson

Picked & Crushed 10/1/67

SO₂ @ 1 gm/gal

2 1/2 gal crushed mixture
from 3 yr old vines

B^o = 22.0 PH = 3.3

67 Zinbündel

Same as Dick Hughes - 1500# of rotten berries + several boxes Emperor in good shape. $SO_2 = 2 \text{ gm/gal}$

$B^0 = 22.5$ $P_{1+} \approx 3.4-$

Crushed & Picked 10/1/67

67' ZIN

Source: 1008 Hatchman
A 18# SO₂ 1 gm / GAL

B^o = 18^o

PH ≈ 3.4

Grinded & Picked 10/5/67

67 GEWÜRZTRAMINER

Source: Sommer Roseburg, Oregon
Picked 10/11. $\approx 40\#$ SO_2 2gm/cul

$$B_0 = 15.5$$

$$P_H = 3.4$$

Crushed 10/12

Inoculated 10/13.

67 Sauvignon Blanc

Sauvignon, Linnon, Roseburg, Oregon

^ # 40# picked 10/11, crushed

10/12 SO₂ 16m/Gal

B^o = 21.1 P_H = 3.1

Inoculated 10/13

67 Pinot Chardonnay

Source: Sommer, Roseburg, Oregon

Picked 10/11 $\approx 20\%$ SO_2 10mg/ml

Crushed 10/12

$\text{B}^\circ = 19.7^\circ$

$\text{PH} = 3.2$

Inoculated 10/13

67 Cabernet Sauvignon

Source: Summer, Roseburg, Ore.
Picked 10/11, Crushed 10/12. $\approx 40\%$
 $SO_2 \approx 16\text{m}/\text{Gal}$

$B^{\circ} = 21.0$ $P_{11} = 3.2$
Inoculated 10/13

67 White Riesling

Source: Sommer, Roseburg, Oregon
Ripe and Crashed 10/11 by Sommer
1 Gal of must of 100 ppm SO_2

$B^{\circ} = 19.6$ $\text{PH} = 3.0$

Harvested 10/13

67 Pinat Noir

Source: Felzer, 100#, Picked
10/14, crushed 10/15
 $SO_2 = .5 \text{ gm/cc}$

$B^{\circ} = 21.3$ $PH = 3.3$

Inoculated:

67 Semillon

Source: Fetzer, 100# picked
10/14 crushed 10/15

$SO_2 = 10 \text{ ppm/gal}$

$B^{\circ} = 20.1^*$ $P_H = 3.0$

.2 L/l after crushing

Pressed 10/15

Inoculated 10/16

* before pressing

67 Semillon

Source: Ruby Hill; 100#
picked & crushed 10/13 PM
 $B^o = 20.4$ $P_H = 3.5$

pressed 10/15 am
macerated 10/15

67 Zn

Source: Ruby Hill, 100#
picked & crushed 10/13 PM
 $B^{\circ} = 15.5$ $PH = 3.0$

stemmed: 10/15
droculated: 10/15

67 ZIN

Source: Antonelli L.V. 100#

picked & crushed 10/22

2 gm / Gal SO₂

Ballistic = 21.5 P_u =

droculated 10/24

67 Barbera

Source: Ruby Hill,
picked 10/23, analyzed 10/23
2 gm / gal SO_2

Balling: 23.5 $\text{PH} =$

Inoculated 10/24

67 Chemin Blanc

Source: Feltzer, 100# picked
10/29, crushed 10/30
 $SO_2 \approx 1/2$ gm/gal

$B^{\circ} \approx 21.5$ $P_H \approx$
Inoculated 10/31

67 Cabernet & Carignan

Source: Fitzer, 75# Cab, &
50# Carignan picked 10/29
crushed 10/30

$SO_2 = 175 \text{ mg/gal}$

$B^D = 21.4$ $P_H = 3.30$
Inoculated 10/31

67 Chardonnay & Malvasia

Source: Ruby Hill. Picked 180# P.C.
& 50# M. & crushed on 11/12

SO₂ = 1 gm / gal

Pressed 11/14

BP = 23.3

Inoculated 11/14 Pit = 4.1

ADJUSTED TO 3.2

wine



Wine & Art

3417 West Broadway

Vancouver B.C.

Presque Isle

W. Michael Formatt

5422 Glenwood Park Ave

Eric Pa 16509

Wine Institute

Bulletin



