

MAKING PORT WINE

Official NORTHERN BREWER Instructional Document

PORT TYPES

RUBY – 2 months, easy drinking, not complex, no oak

VINTAGE – 18 months then aged in bottle, robust and fruity, no oak

TAWNY – +18 months, oxygen exposure brings out nutty 'port' character, touch of oak

FORTIFICATION FORMULA

$$X = V(C-A) / B-C$$

X = GAL BRANDY NEEDED

V = GALLONS OF WINE

C = FINAL ALCOHOL % WANTED

B = ALCOHOL % OF BRANDY

A = ALCOHOL % OF WINE

YOU WILL NEED:

- POTASSIUM METABISULFATE
- GO-FERM
- YEAST NUTRIENT
- YEAST
- TARTARIC ACID
- PECTIC ENZYME
- EVERCLEAR
- OPTIONAL:**
- MALOLACTIC BACTERIA
- GRAPE TANNIN
- OAK

PORT FLOW CHART

1. HARVEST

2. CRUSH/DE-STEM

- REMOVE ALL STEMS
- CRUSH EACH BERRY

3. TEST MUST

- SUGAR - BRIX (°B) ~22 – 25 °B
 - <22 to low (see adds.)
 - >26 MAY dilute
- TOTAL ACID (TA) ~0.65 – 1.0 G/L
- PH 3.2 – 3.6

4. ADDITIONS

- POTASSIUM METABISULFATE (SULFITE)
 - Add .5 tsp per 5 gallons
 - Dissolve in small quantity of must, add
- NUTRIENTS
 - 1/8 tsp nutrient per gallon of must
 - Dissolve in small quantity of must, add
- TOTAL ACID (TA) ~0.75G/L
 - 1 tsp Tartaric acid = 0.12g/L increase TA
 - Dissolve in small quantity of must, add
- YEAST
 - Choose strain - wet or dry
 - Dry: rehydrate with Go-Ferm 1.25g:1g dry yeast
- PECTIC ENZYME
 - .5 tsp per gallon of must
- OPTIONAL – CHAPITALIZE (ADDING SUGAR)
 - Must < 22 °B
 - 1.5oz (~3T) sugar/ gal must = ~1°B
 - Dissolve in small quantity of must, add

5. PRIMARY FERMENTATION (DAYS 1–4 @ 59-85°F)

- PUNCH DOWN CAP & STIR UP LEES - 3X DAILY

6. FORTIFICATION (STOPS FERMENTATION)

- ADD WHITE BRANDY (EVERCLEAR) TO 18-21.5% ALCOHOL
- STOP BETWEEN 3 – 11.5 °B (ACTUAL) FOR DRY TO SWEET PORT
- USE TASTE TEST TO MAKE SURE
- ALLOW TO MACERATE ON THE SKINS FOR 3 – 12 DAYS
- EXAMPLE:

WANT: A sweet port with a final gravity of 9.5°B and abv of 21%.

HAVE: 5 gallons of port with OG of 25°B and will be fortified when the brix READS 17°B (~11°B actual) which translates to ~8%. We will then need ~0.75gal of 95% Everclear to achieve this. This added volume will dilute the final sugar content to ~9.5°B.

7. PRESS THOROUGHLY (DAYS 7–14)

- LET SETTLE 1 DAY
- TRANSFER TO BUCKET ALLOW CONTACT WITH O₂

8. CLEARING (3–4 WEEKS @ 55–65°F)

- FINING - SUPER KLEER OR SPARKOLLOID
- RUBY PORT CAN BE BOTTLED AFTER 4 WEEKS
- MAKE MADEIRA? ADD HEAT!
 - Good: age 3 months @ 122°F
 - Best: age 6 months @ 104°F
 - Reduce the heat over a month
 - Oxidize - rack once per month from a height to allow full O₂ exposure

9. STABILIZING (6–18 MONTHS @ 55–65°F)

- STORE IN A BUCKET WITH AIRLOCK
- OPTIONAL – OZ MED PLUS OAK PER GALLON
- VINTAGE PORT BOTTLED AT 18 MONTHS

10. MATURATION (18+ MONTHS)

- TRANSFER TO GLASS CARBOY
- TAWNY PORT BOTTLE HERE ON OUT

11. FINAL RACKING / PRE-BOTTLING

- ~1 MONTH BEFORE BOTTLING
- ADD .25 tsp SULFITE PER 5 GALLONS
- PH/TA
 - Too acidic - difficult, call NB
 - Too flat - add tartaric acid to taste

- pH ~ 3.5
- FINING - SUPER KLEER OR SPARKOLLOID
- OPTIONAL - FILTER

12. BOTTLE

- ADD 1/8TH tsp SULFITE = 25PPM
- 18 MONTHS – 6 YEARS
- WAIT 2 MONTHS BEFORE OPENING TO AVOID BOTTLE SHOCK