

3' X 3' IN 3

“KIT” WINE MAKING

By William J Forsch

HERE'S THE CONTEXT!

- 3 feet X
3 feet of
space
- 3 hours of
your time
to make
- 30 bottles

(You Probably only need 2 X 2, but I thought 3X3 sounded better!)

WINE KITS



- Wine Concentrates started in California in the 70's
- Canadian Sin Tax spawned the "Kit" industry & Kit shops
- "Self" made beers and wines for personal consumption avoid Sin taxes!

A typical “Kit” Shop in Canada might have hundreds of carboys aging for customers!



WHAT ARE THE KITS?

- “Processed” juice & juice concentrates – stable & need no refrigeration
- Each Kit Contains: Juice, all additives needed for your “kit”, & complete detailed directions
- Kit Sizes volume will range from 8 liters to all juice, (23 liters)
 - But,
- Each Kit Makes 30 bottles per kit,
 - 30 bottles = 6 gallons of wine. (750ml)

KIT WINE MAKING

- Inexpensive to start – About - \$150.00 in equipment needed, (all re-usable)
 - Inexpensive cost / bottle - Kits cost \$75 to \$225 each, (& makes 30 bottles of wine)
 - Flexibility - Can be made year round!
-

Equipment Components

About \$150!



On line package price is usually less another \$25 in total!



**7.9 Gallon Plastic
Fermenter w/lid:
\$20**



Old Standards!

- Still the best
- Least expensive
- Easy and Functional
- Will last for years and years!



**Carboys: \$25
Glass or
Plastic**



Let's Get Started!



Kit Wine Making Can Be Broken Down into 3 Major Steps

Preparation & Fermentation



Stabilizing & Clearing



Finishing & Bottling



The First & Most Important Step – Preparation

- ❑ Sanitize Everything that comes in Contact with your wine:
 - Hoses, carboys, fermenters, hydrometers, stir sticks, lids, airlocks, and HANDS! Everything!

 - ❑ Directions: Follow to a tee all directions!
 - Don't take shortcuts, Read and reread!
-

10 minutes

TYPICAL DETAILED INSTRUCTIONS

SELECTION™ INSTRUCTIONS BEFORE YOU BEGIN

- Please read all instructions before starting.
- Clean all equipment with an unscented winemaking detergent (recommended by your retailer) and rinse thoroughly with hot water to remove all residues.
- Sanitise your equipment by rinsing it with a metabisulphite solution. To make this solution, dissolve 50 grams (3 tablespoons) of metabisulphite powder in 4 litres (approximately one gallon) of cool water. You must dip or spray every piece of equipment with this sulphite solution. Drip dry or rinse with cool water. Leftover solution can be stored in a tightly sealed container for two months.
- Use good quality drinking water with this kit. If you're not sure of your water quality, consider using bottled water.
- This kit may contain multiple packages of each ingredient. Please add **all** packages when directed.
- This kit may contain a smaller bag (**F-Pack**), required in Stabilising and Clearing. Store it in a cool, dry place until needed. **Do not add the F-Pack to the fermenter on the first day.**
- The starting temperature of the wine is **critical**. If yeast is added to a kit that is too cold, it will not ferment or clear properly. Double check that the juice temperature is between 22-24°C (72-75°F) **before** adding the yeast.
- Please remove the code number sticker from the box top and attach it to these instructions, or to your winemaking record book. Your retailer will require the information from this sticker should you have any questions or comments. Write down the type of wine and the date started as well.

Type of Wine: _____
Date Started: _____ **wineexpert™**

supply list

Your Selection Kit includes:

- Large juice bag
- Yeast
- Package #2 (Bentonite)
- Package #3 (Metabisulphite)
- Package #4 (Sorbate)
- Package #5 (Fining agent)

May also contain:

- Package(s) of oak powder or chips
- Package of Elderflowers
- F-Pack (smaller juice bag)

If you have more than one of any packet, please add all of them when directed.

Equipment required:

- Primary fermenter (minimum 30 litres/7.9 US gallon) capacity, with lid
- Long stirring spoon (plastic or stainless steel)
- Measuring cup
- Hydrometer and test jar
- Thermometer
- Wine thief
- Siphon rod and hose
- Carboy (glass or plastic) 23 litre (6 US gallon) capacity
- Bung and airtlock
- Solid bung
- Unscented winemaking detergent for cleaning
- Metabisulphite powder for sanitising
- Thirty wine bottles, thirty corks and a corking machine

Your kit will take between 6 and 8 weeks to produce.

1 primary fermentation

Ensure that your primary fermenter is capable of holding at least 30 litres (7.9 US gallons) of volume. Pre-mark the primary fermenter at 23 litres (6 US gallons) by filling your 23 litre (6 US gallons) carboy with cool water, then pouring or racking this water into the primary. Draw a line in permanent marker on the fermenter at the water level. This will be your fill level (below). Discard water and begin. Clean and sanitise primary fermenter and lid, spoon, thermometer, hydrometer and test jar, and wine thief. Rinse thoroughly.



- Add 2 litres (one-half gallon) of hot water to the bottom of your sanitised primary fermenter. Stir the water vigorously and slowly sprinkle the contents of package(s) #2 (bentonite) onto the surface. Stir for 30 seconds to ensure even dispersal, and to break up any clumps.
- Secure the neck of the bag into the collar on the top of the box, carefully remove the cap, and pour the contents into the primary fermenter with the bentonite solution. Add 2 litres (1/2 gallon) of warm water to the bag to rinse out any remaining juice, and add it to the fermenter.
- Top up fermenter to the 23 litre (6 US gallon) mark with lukewarm water. Stir vigorously for 30 seconds.

NOTE: Making the kit to a full 23 litres (6 US gallons) is crucial to the functioning of the fining agents and stability of the finished wine. If you make it to any other volume, it will not turn out correctly, and any problems you may experience may not be solvable.

- Draw a sample of the juice and use your hydrometer and test jar to check the specific gravity. It should read between 1.080-1.100, depending on the wine type.
 - If your wine kit contains elderflowers, tear open the package(s) and sprinkle them into the primary fermenter now. If your wine kit contains oak powder, tear open the package(s) and sprinkle them into the primary fermenter now. If your kit has more than one package of oak powder, add them all. Stir them under the surface of the liquid.
 - Ensure that the temperature of the juice is between 22-24°C (72-75°F). Do not proceed unless the juice is in this range.
 - ADD YOUR YEAST NOW.** Open the yeast package and sprinkle contents onto the surface of the juice. Do not rehydrate the yeast. Do not stir it in. It will activate on its own.
 - Cover the primary fermenter and place in a location with a temperature of 22-24°C (72-75°F). If your primary fermenter uses an airtlock, insert it now. Remember to fill airtlock halfway with water.
- Fermentation should start within 24-48 hours. In 5-7 days proceed to the next step.

4 racking and clarification

After 8 days your wine will be quite clear. This next racking will help to brilliantly polish it. Clean and sanitise carboy, siphon rod and hose.



- Rack the wine into a clean, sanitised carboy. Take all of the clear wine, and leave the sediment behind.
- NOTE: Winexpert kits contain very low levels of sulphite compared to commercial wine. If you want to age your wine more than 6 months, you must add extra metabisulphite powder to prevent oxidation. To do this, dissolve 1.5 grams (1/4 teaspoon) of metabisulphite powder in 125 ml (1/2 cup) cool water and gently stir into wine in the clean carboy. This extra sulphite will not affect flavour or early drinkability.**
- Do not add any additional water ("top up") to your carboy at this time. Topping up will change the character of your wine. Your wine will not oxidise or spoil during the time remaining to bottling.
- Fill airtlock halfway with water and reattach bung and airtlock to carboy. Leave the wine 14 days to finish clarifying.
- After 14 days, check your wine for clarity by drawing a small sample into a wineglass and examining it in good light. If it is not completely clear, leave for another 7 days. Do not bottle cloudy wine: it will not clear in the bottle.

2 secondary fermentation

After 5-7 days draw a sample of the juice and use your hydrometer and test jar to check the specific gravity. It should be 1.010 or less. You must rack (transfer) the wine into a 23 litre (6 US gallon) carboy at this time.



NOTE: The lower the fermenting temperature, the longer it will take to reach this stage. If your gravity is not at or below this level, wait, testing the gravity each day, until it is.

Clean and sanitise siphon rod and hose, hydrometer and test jar, wine thief, 23 litre (6 US gallon) carboy, bung and airtlock. Rinse well.

- Place the primary fermenter up at least 1 metre (3 feet) onto a sturdy table.
- Carefully siphon wine into a clean, sanitised 23 litre (6 US gallon) carboy. Leave the thick sediment behind, but make sure you transfer most of the liquid. This may leave a space at the top of the carboy of approximately 1/2 litre (one US pint) in volume. **This is normal.**
- Attach airtlock and bung to carboy. Remember to fill airtlock halfway with water.
- Leave carboy in your fermentation area at the temperature of 22-24°C (72-75°F) for 10 days.

You may not see further fermentation activity in the carboy. This is not a cause for worry. In 10 days you can proceed to the next step.

5 bottling

Clean and sanitise thirty 750 ml (25.4 fl. oz) wine bottles, siphon rod and hose, and siphon filter. Rinse well.



NOTE: If you are not bottling at this time you must remove the bung and airtlock and replace them with a solid rubber or silicone bung. This will help to prevent oxidation until you do bottle. If you intend to leave the wine in the carboy longer than one month, you will need to top it up to within 2 inches (about the width of two fingers) from the bottom of the solid bung with a similar wine. Alternatively, you can transfer the finished wine to a smaller vessel to eliminate any headspace and reduce the danger of oxidation. If you wish to filter your wine, you should do it now, immediately prior to bottling.

If you are concerned about disturbing any sediment on the bottom of the carboy when bottling, clean and sanitise a primary fermenter or carboy, rack or filter the wine into it, and bottle from there.

- Siphon your wine into clean, sanitised bottles and seal with a good quality cork. Be sure to leave two finger-widths of space between the bottom of the cork and the level of the wine in each bottle.
- Leave bottles upright for 3 days before laying them on their sides, to allow corks to seal. Store bottles in a dark, cool, temperature-stable place.

3 stabilising and clearing

After 10 days, check your specific gravity. It should be 0.996 or less. If it is higher than 0.996 wait 2 days and measure again—remember, temperatures below 22-24°C (72-75°F) will extend fermentation time.



For Luna Rossa and Luna Bianca: these wines will not ferment below 0.998. This is normal. Once the gravity of these wines reaches 0.998 you can proceed with fining and stabilising.

If you do not verify the gravity reading, your wine may not clear properly!

Before proceeding, clean and sanitise hydrometer, test jar, wine thief and spoon. Rinse well.

NOTE: Do NOT rack the wine before stabilising and fining. Winexpert kits require that you stir the sediment back into suspension. Racking the wine off the sediment prior to fining may permanently prevent clearing. Please be sure to stir all of the sediment up from the bottom.

The wine needs extremely vigorous stirring during this stage. Without hard stirring, trapped gas in the wine will prevent clearing. At each stirring, whip the wine hard. Drill-mounted stirring devices (see your retailer) can ensure efficient degassing.

- Dissolve contents of package(s) #3 (metabisulphite) and package(s) #4 (sorbate) in 125 ml (1/2 cup) of cool water. Add to carboy and stir vigorously for 2 minutes to disperse the stabilisers and drive off CO₂. Be sure to stir up yeast sediment from the bottom, and stir hard enough to agitate gas out of the wine.

If your wine kit came with an F-Pack, follow the special instructions below. If it does not have an F-Pack, proceed to Step 2.

SPECIAL INSTRUCTIONS FOR F-PACK KITS ONLY

Remove 500 ml (2 cups) of wine from the carboy to make room for the contents of the pack. Reserve this wine for topping up the carboy (Step 3). Shake the F-pack bag, carefully remove the cap, and gently pour contents into the carboy. Stir vigorously for 60 seconds. Your gravity will now read between 0.998 and 1.007 depending on the style of kit. Proceed to Step 2.

- Shake contents of package(s) #5 (Chitosan or isinglass clarifier). Carefully cut open the corner of the pouch(es) and pour contents into carboy. Stir vigorously for another 2 minutes to degas the wine. If you do not degas the wine completely, it will not clear.
- For F-pack kits, return any wine removed to the carboy now.
- Fill airtlock halfway with water and reattach bung and airtlock to carboy.
- Leave carboy in your fermentation area at the temperature of 22-24°C (72-75°F) for 8 days to clear.

After 8 days, you are ready to proceed to Racking and Clarification.

Try to wait at least one month before you taste your wine—but it will improve even more after three to six months. **enjoy!**

Questions? Comments? Contact us at info@wineexpert.com
www.wineexpert.com

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- A close-up photograph showing a person's hands. One hand is holding a white packet labeled 'Bentonite' and pouring a white powder into a white bucket. The bucket contains a yellowish liquid. Another hand is holding a white stirrer and mixing the contents. The background is a light-colored tiled floor with black diamond-shaped accents.
- **OK, We're Sanitized Completely**
 - **We've read & reread our directions**

First step:

- **1 gallon of warm water**
- **Our Package of Bentonite**
- **Stir until mixed thoroughly**

2 Minutes

Second step:

- **Open juice bag**
- **Pour contents into our fermenter**
- **Rinse bag with warm water**
- **Fill fermenter to exactly 6 gallons!**



4 minutes



CULTIVE EN CALIFORNIE / GROWN IN CALIFORNIA



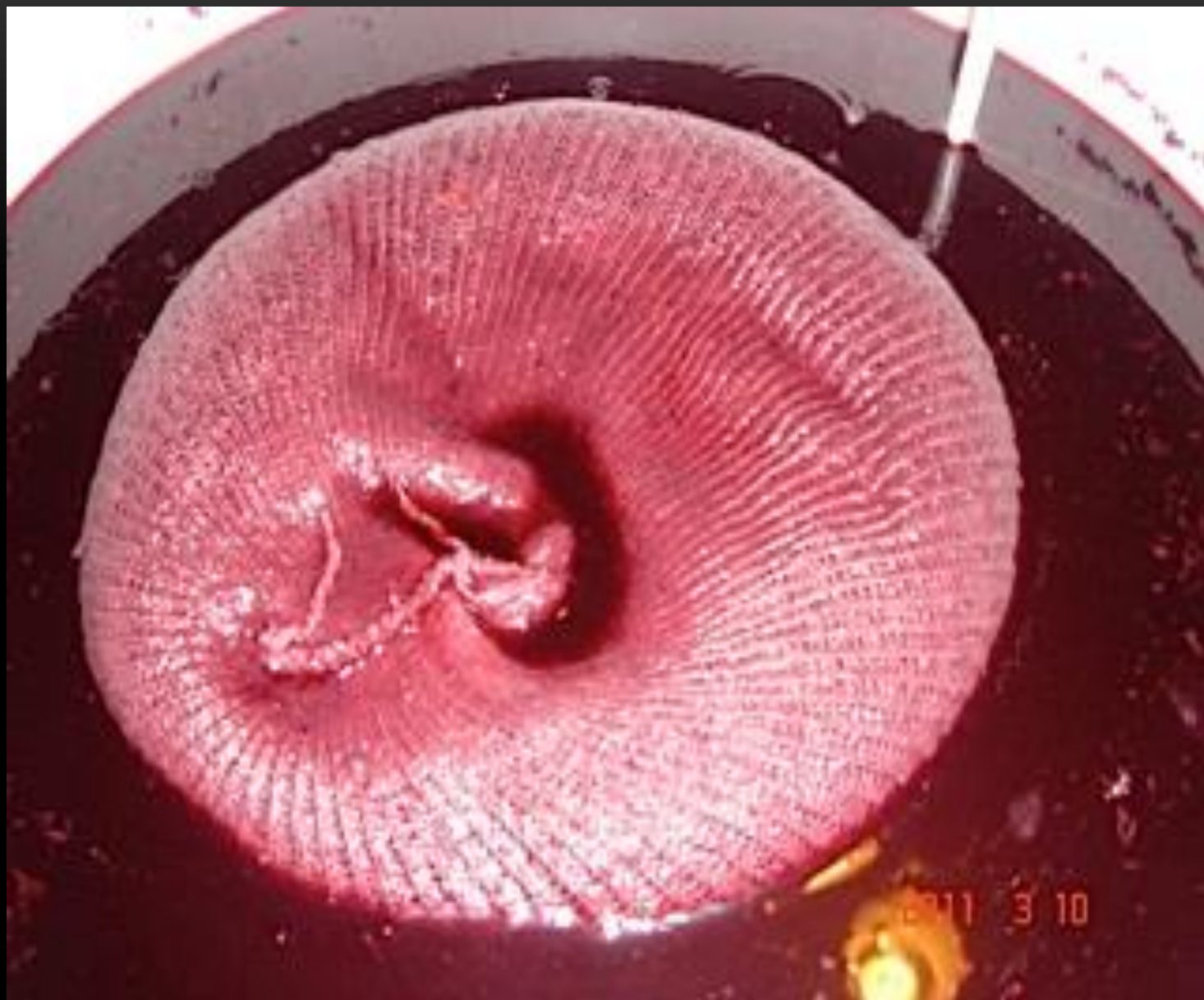
ALLGRAPE -PACK-

100% Raisins Naturel

100% Natural Grapes

1kg





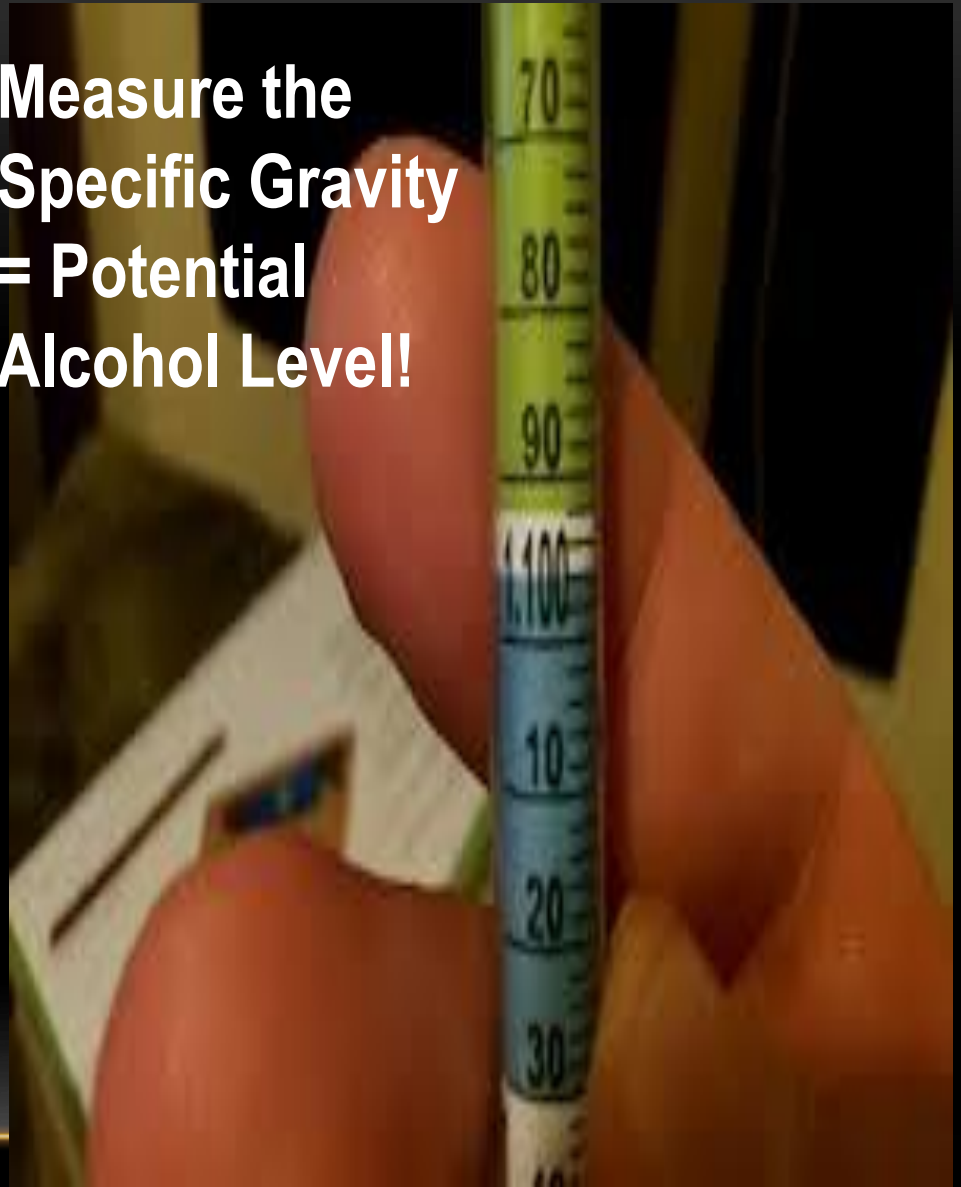
TABLE

WINE SG	WINE % ABV	WINE % ABV
1.000	0.0	0.0
1.001	0.1	0.1
1.002	0.2	0.2
1.003	0.3	0.3
1.004	0.4	0.4
1.005	0.5	0.5
1.006	0.6	0.6
1.007	0.7	0.7
1.008	0.8	0.8
1.009	0.9	0.9
1.010	1.0	1.0
1.011	1.1	1.1
1.012	1.2	1.2
1.013	1.3	1.3
1.014	1.4	1.4
1.015	1.5	1.5
1.016	1.6	1.6
1.017	1.7	1.7
1.018	1.8	1.8
1.019	1.9	1.9
1.020	2.0	2.0
1.021	2.1	2.1
1.022	2.2	2.2
1.023	2.3	2.3
1.024	2.4	2.4
1.025	2.5	2.5
1.026	2.6	2.6
1.027	2.7	2.7
1.028	2.8	2.8
1.029	2.9	2.9
1.030	3.0	3.0
1.031	3.1	3.1
1.032	3.2	3.2
1.033	3.3	3.3
1.034	3.4	3.4
1.035	3.5	3.5
1.036	3.6	3.6
1.037	3.7	3.7
1.038	3.8	3.8
1.039	3.9	3.9
1.040	4.0	4.0
1.041	4.1	4.1
1.042	4.2	4.2
1.043	4.3	4.3
1.044	4.4	4.4
1.045	4.5	4.5
1.046	4.6	4.6
1.047	4.7	4.7
1.048	4.8	4.8
1.049	4.9	4.9
1.050	5.0	5.0
1.051	5.1	5.1
1.052	5.2	5.2
1.053	5.3	5.3
1.054	5.4	5.4
1.055	5.5	5.5
1.056	5.6	5.6
1.057	5.7	5.7
1.058	5.8	5.8
1.059	5.9	5.9
1.060	6.0	6.0
1.061	6.1	6.1
1.062	6.2	6.2
1.063	6.3	6.3
1.064	6.4	6.4
1.065	6.5	6.5
1.066	6.6	6.6
1.067	6.7	6.7
1.068	6.8	6.8
1.069	6.9	6.9
1.070	7.0	7.0
1.071	7.1	7.1
1.072	7.2	7.2
1.073	7.3	7.3
1.074	7.4	7.4
1.075	7.5	7.5
1.076	7.6	7.6
1.077	7.7	7.7
1.078	7.8	7.8
1.079	7.9	7.9
1.080	8.0	8.0
1.081	8.1	8.1
1.082	8.2	8.2
1.083	8.3	8.3
1.084	8.4	8.4
1.085	8.5	8.5
1.086	8.6	8.6
1.087	8.7	8.7
1.088	8.8	8.8
1.089	8.9	8.9
1.090	9.0	9.0
1.091	9.1	9.1
1.092	9.2	9.2
1.093	9.3	9.3
1.094	9.4	9.4
1.095	9.5	9.5
1.096	9.6	9.6
1.097	9.7	9.7
1.098	9.8	9.8
1.099	9.9	9.9
1.100	10.0	10.0

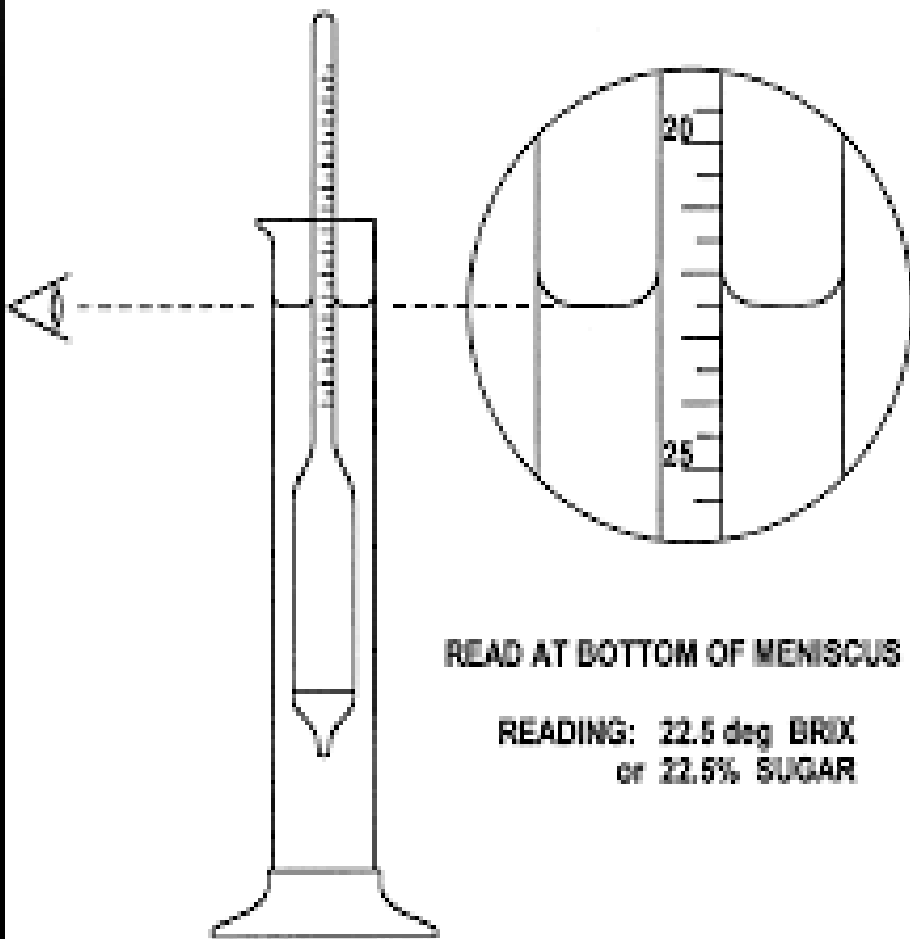
WINE & BEER hydrometers



Measure the
Specific Gravity
= Potential
Alcohol Level!



BRIX / BALLING HYDROMETER



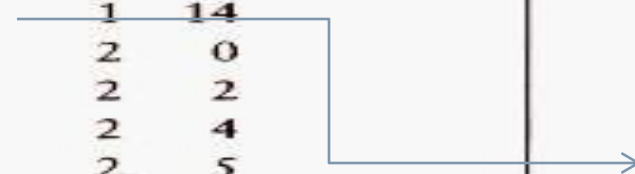
2 minutes

Hydrometer Chart for American Readers

This chart takes account of the smaller volume of the United States gallon, and should not be confused with the chart giving British and Metric measurements.


<i>Specific Gravity</i>	<i>Amount of sugar in 1 US gallon</i> <i>lb oz</i>		<i>Potential alcohol</i> <i>(% by volume)</i>
1.010		4	1.4
1.015		6	2.0
1.020		8	2.8
1.025		9	3.4
1.030		11	4.1
1.035		13	4.8
1.040		15	5.5
1.045	1	0	6.2
1.050	1	2	6.9
1.055	1	4	7.6
1.060	1	6	8.2
1.065	1	7	8.9
1.070	1	9	9.5
1.075	1	10	10.2
1.080	1	12	11.0
1.085	1	14	11.6
1.090	2	0	12.3
1.095	2	2	13.0
1.100	2	4	13.6
1.105	2	5	14.4
1.110	2	7	15.0
1.115	2	9	15.7
1.120	2	11	16.4

In this case, the Potential ABV could be 14.4%





We sprinkle our
Yeast on the Must
– at this Point –
The must becomes
WINE!



*The first 6 days –
We flip the muslin bag and stir each day!
(we sanitize each time!)*

Total time 12 minutes all 6 days

Fermentation Step:

First 6 days, place lid on the top

Fill airlock ½ full of SO₂

Install bung and airlock

Flip your grape pack daily, w/ sanitized spoon



Day 7

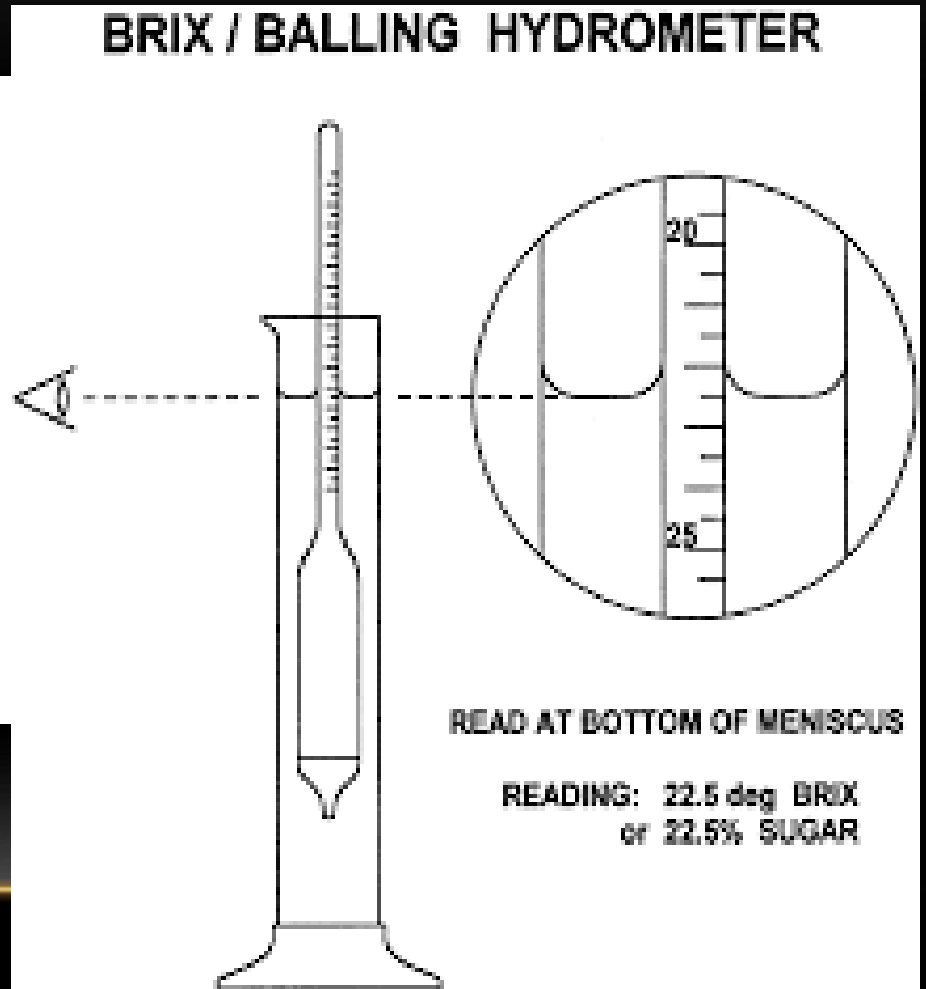
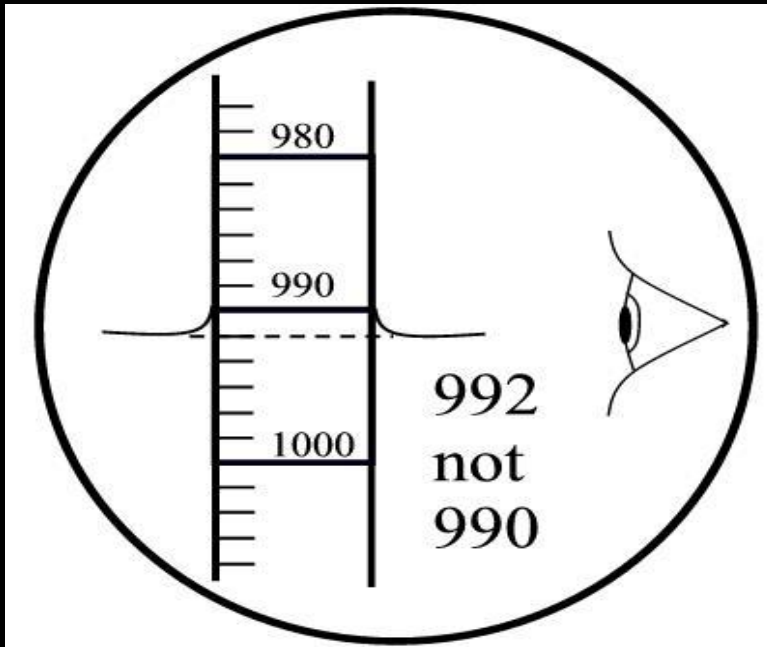
We Squeeze out the Grape pack & discard




5 minutes

Re-measure specific gravity
Re-check kit directions
If at SG recommended, we proceed

BRIX / BALLING HYDROMETER



2 minutes



Rack to Carboy
Leave Sediment
Behind

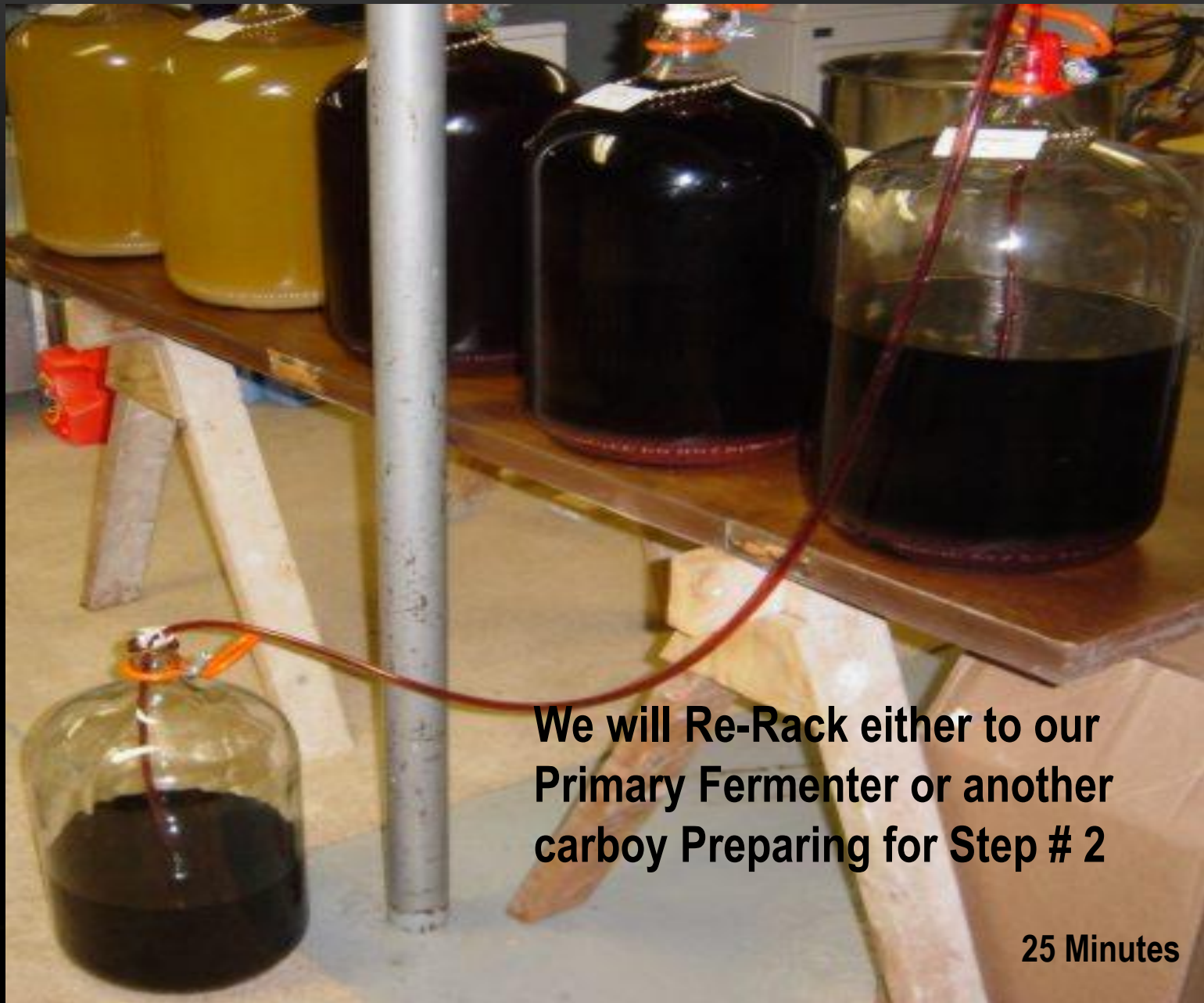
10 minutes

© Brewer's Friend 2012

**Your wine will
initially be
cloudy!**



**We will place on
our table & wait 10
days –for our wine
to finish fermenting**



**We will Re-Rack either to our
Primary Fermenter or another
carboy Preparing for Step # 2**

25 Minutes

Step # 2 – Stabilization & Clearing Steps –

- Add SO2 package mix thoroughly, to protect our wine
 - De-gas Thoroughly – to remove CO2
- Clarify with package 1 – positive
- Clarify with package 2 – negative
- Add Oak, (if included)
 - Top up if necessary & Install air lock



30 minutes

CLARITY – YOUR WINE WILL CLEAR!

Immediate



2 days



10 days



NO, the wine didn't mysteriously turn to white wine!

I'm only showing an example!



DPIKE@DOUBTFULACCOUNTS.COM

What home project? I just want to get a wine label off.

Re-cycling Used Bottles: Removing Labels – Hot Water & Elbow Grease



Sanitizing Inside and Out



WIKIHOW

Two Useful Additional Tools

**Bottle
Spritzer**



**Each Less than \$20!
Lasts Years!**

**Draining
Tree**





Bottles Sanitized Inside & Out Drying!

5 minutes

OPTIONAL FILTERING - HOME WINE MAKER FILTER





Corkers

Hand Corker Below NOT Recommended!

Floor Corkers to the right – Portuguese on the left and Italian on the Right.
Both HIGHLY Recommended!



No, No, No!!!

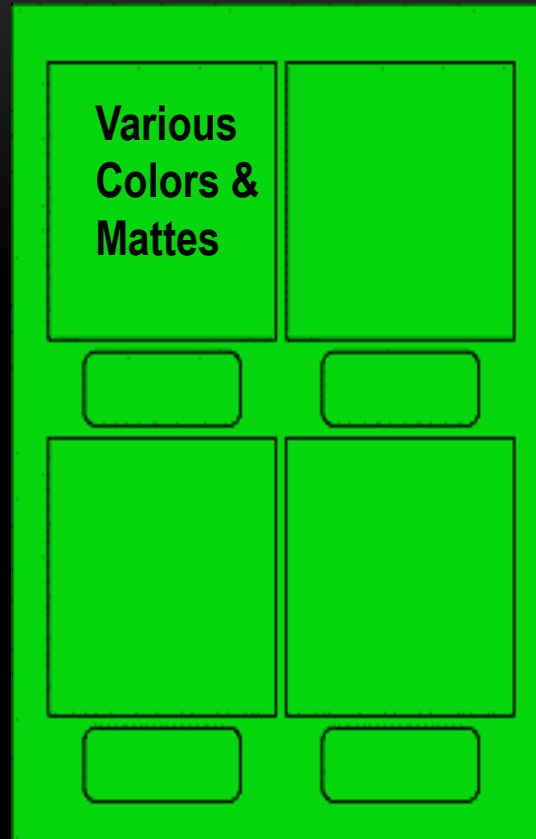
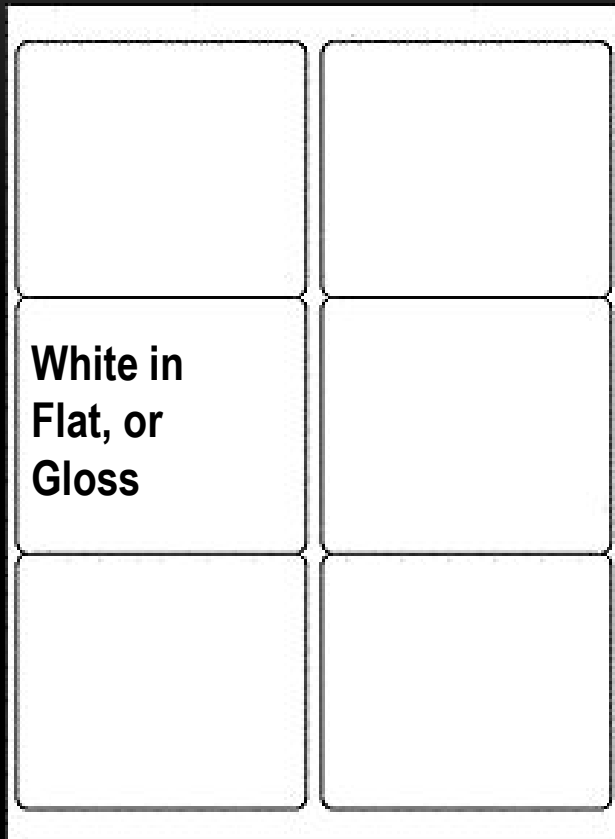




The Cork is
Compressed & inserted
into the bottle Neck



Printable Blank Labels are Available in Many Colors and Materials



**Big Money Saving Tip: On-LineLabels.com
Great Selection, Service, and Prices on Blank Labels!**

3' X 5' TABLE – NOTICE 8 KITS



My Wine
Making
Room for 5
years!

3 X 3 IN ABOUT 3

Sanitize & Read the Directions	20
Mix Must, Check Sugar, Add Yeast, & Flip It	45
Stabilize & Clearing & Degassing	35
Bottling – Filling, Corking, Labelling, & Capsuling	70
<u>Enjoying the glass that didn't fit in the last bottle</u>	<u>10</u>
Total Time, (if you're good!)	180 minutes

KIT WINES – EASY, FUN, & VERY GOOD



QUESTIONS ?

WHAT WERE THE 2 THINGS TO BE 95% SUCCESSFUL?
