

THE MAKING OF CHAMPAGNE

Ingredients:

- Fruit
- Low sugar
- High Acid

First Fermentation

- Still Wine
- Low in Alcohol
- High in Acid

Finish of Wine

- Clarification without fining
- NO Potassium Sorbate
- Assessment - Blending?

Second Fermentation in the bottle

- Start in primary/carboy
- Bottle and Cap
- Store on side for 6-9 months

Riddling

- From horizontal to vertical
- Daily twist
- Safety

Disgorge, Sweeten, & Cork

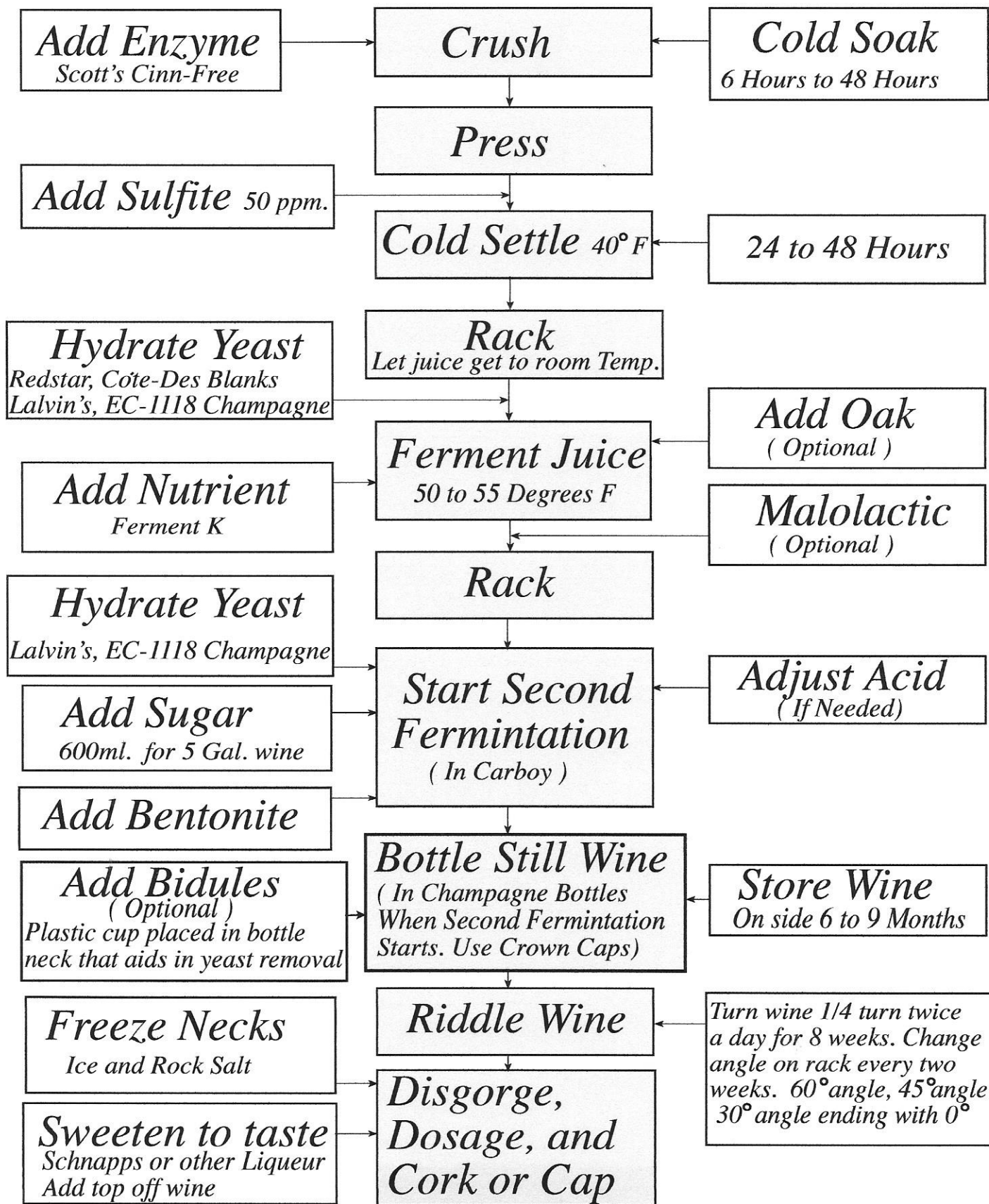
- Prepare all
 - Dosage
 - Bottles
 - Equipment
 - Safety
- Chill all
 - Bottles
 - Dosage
 - Freeze neck
- Open into bucket
- Balance amount of wine in bottle
- Slowly add dosage
- Cork with mallet
- Wire Cork
- Blend wine and dosage

Store on side for 3-6 months

Chill and enjoy!

Sparkling Wine

Harvest Grapes 17-19 Brix, TA. .7-. 9, PH. 3.3-3.45



Making "Champagne" or Sparkling Wine

Here are instructions for making "champagne" via two methods. The first one is very easy and gives excellent results but you do end up with some sediment in the bottles. The second set of instructions is for the traditional method that is used in making real champagne. This is somewhat more challenging but the final result may be well worth it.

There is third and far easier method. This is done by artificial carbonation. You will need special equipment to do this. You will need CO2 gas and a regulator, a stainless steel Coke or Pepsi canister, and a counter-pressure bottle filler.

COUNTRY CHAMPAGNE

Country Champagne that gives wonderful results with a bare minimum of hassle. Although sparkling wine can be made from a variety of materials, Chardonnay, Pinot Noir, and Riesling are the preferred grape varieties. It is best to use a good quality all-grape product for making champagne.

It is essential that the starting gravity be between 1.070 and 1.080 no higher. In addition to your normal winemaking equipment, you will need: 6 champagne bottles per gallon, a bottle capper and enough caps for the job.

1) First, make your base wine, using a champagne yeast strain. Follow the standard procedures for making white wine up through the end of fermentation. Note: DO NOT ADD ANY FININGS, BENTONITE OR POTASSIUM SORBATE

2) Immediately, at the end of fermentation siphon the wine into an open bucket. The wine should be a little cloudy, if not suck up a couple tbls of yeast sediment with your racking tube.

3) Make a simple sugar syrup using 2.25 oz of cane sugar per gallon of wine. To make this syrup, heat a mixture of one part water and two parts sugar (by volume) to boiling. The mixture will become syrup by the time the boiling point is reached.

4) Stir the sugar syrup, gently but thoroughly, into the wine.

5) Siphon the wine immediately into champagne bottles and cap them with crown caps.

6) Stand the bottles upright in a cool place for 3 months. The wine should be clear now with some sediment on the bottom, if not let stand for another month or until crystal clear. After this period, refrigerate the bottles at 0 degrees C. to precipitate tartrate crystals over the yeast. This will help hold it down when pouring.

THE METHODE CHAMPENOISE

In the methode champenoise (the word Champagne only applies to wine making activity carried out in the actual Champagne region, using particular blending procedures), the basic rules are the same as in the preceding method. The wine must be ready for maturing; in the methode champenoise, the base wine should not have an alcohol content higher than 11.5% (23 Proof). To encourage re-fermentation in the bottles, no stabilizer should be used. Add metatartric acid, or refrigerate the must to facilitate the elimination of tartrate deposits before bottling. If the wine is not perfectly clear, filter. Then stir either one cup of sugar or 1 1/4 cup of dextrose into each 20 litres of wine. Stir in restarter

The next step is bottling, using bottles made for sparkling wines only. In the methode champenoise, you have to use caps made for beer bottles, and a Capper. When all the bottles are capped, let them stand for 6 - 12 weeks at a temperature of 15°C - 20°C (60° F - 70° F) Then, remove the cap of one bottle to verify if enough gas is present; if so, proceed with disgorging.

Disgorging is a delicate operation, done after all the yeast sediment formed during the refermentation process has gradually settled in the neck of the bottle. This is achieved by placing the bottles upside-down in cardboard cartons, and giving each bottle a half-turn every day during two or three weeks. Winemakers with money to spend can buy a pupitre, or clearing rack, and tilt the bottles a little more every two or three days until they are completely upside-down.

Thus, when all the sediment is lodged in the neck, against the stopper, it is time for disgorging. Unless you are a past master at this skill, we do not recommend that you carry it out at room temperature, or you may lose two-thirds of your production, and probably your patience as well. Our suggestion is to freeze part of the sparkling wine so that you can extract only the small frozen portion next to the stopper.

There are two ways to do this. The first is to prepare a brine, by mixing one part of coarse salt with 4 parts of crushed ice, in a large tub. The bottles are stuck upside-down in the ice and salt, deep enough so that the contents will be allowed to freeze up to a level of about 1.25 cm. (1/2 in.) above the sediment layer in the neck.

When this level has frozen, you can begin disgorging. Speed is of the essence in this operation if you want to keep most of your sparkling wine. Place an empty recipient (the primary fermenter will do) on a slant in front of you (between your legs, or propped against something solid) and remove the cap of the bottle. Hold the frozen part of the neck firmly, pointing it towards the pail (or other recipient) and wait until the pressure expels the frozen sediment into the recipient (with any luck). Then, stop up the neck immediately with your thumb. After about fifteen seconds, take a sterilized plastic stopper with your free hand and forcefully insert it into the neck of the bottle.

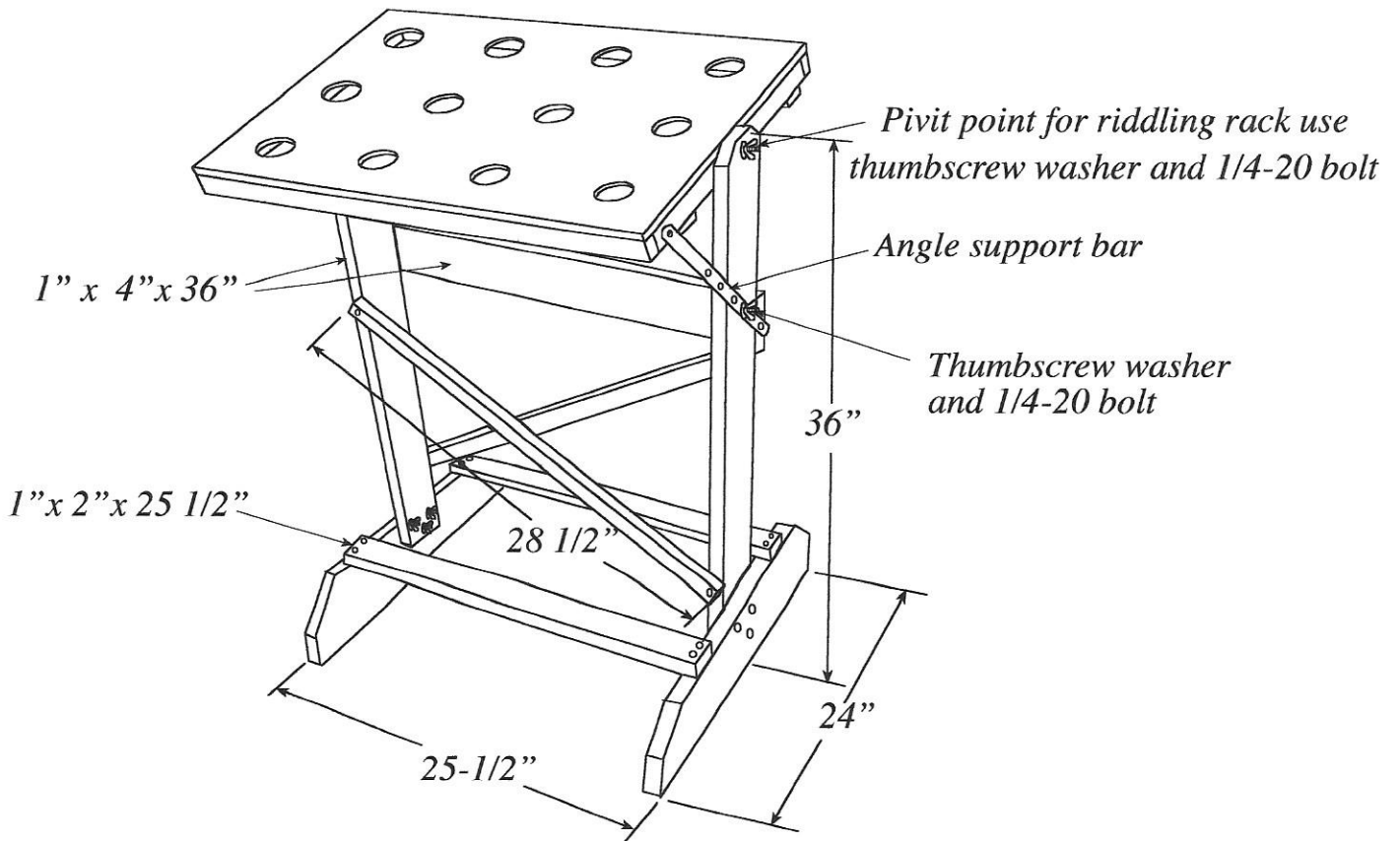
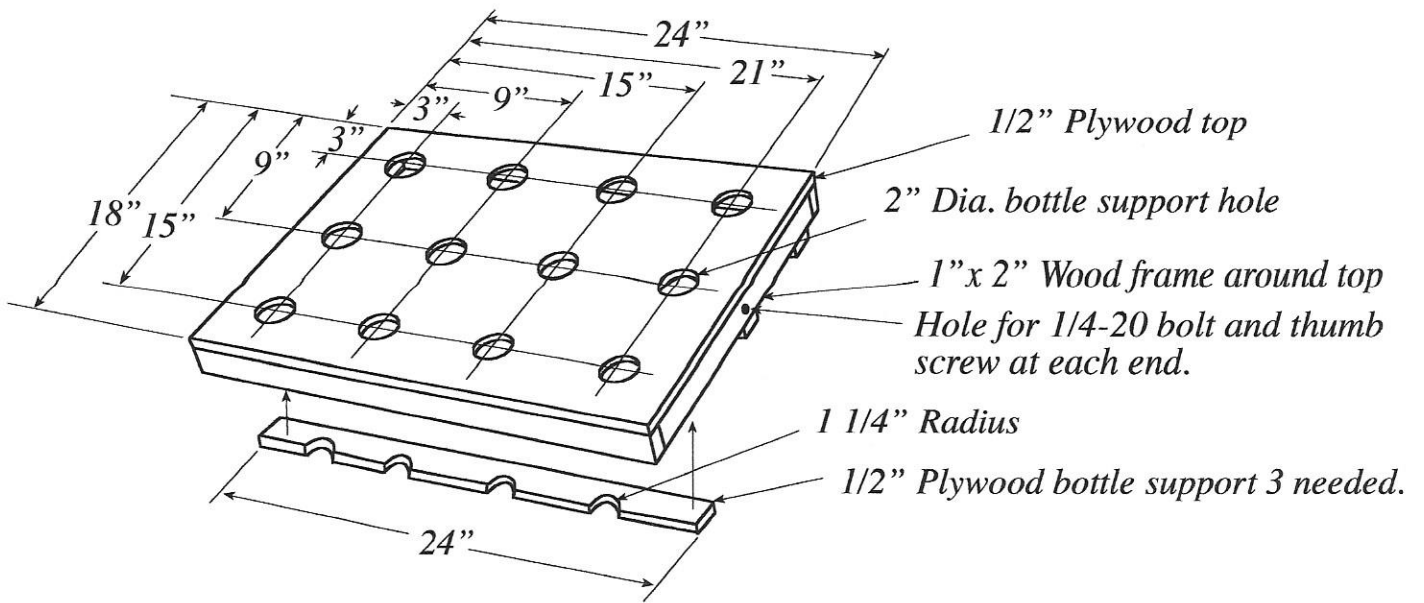
Tie down the cap with a wire hood (Champagne wire) so that it cannot shoot out. Repeat this procedure with each of the bottles.

It takes considerable dexterity to accomplish the disgorging of sparkling wine without waste or mess. This is why we suggest that the amateur winemaker try it first with dummy bottles to acquire some practice in doing it. At the same time as you are adding the sugar and yeast to re-ferment your wine, fill a certain number of bottles (6 - 10) with water and add to each bottle the juice of half a lemon, one level teaspoon of dextrose, and some EC-1118 type yeast. This mixture will become bubbly at the same time as the wine does; thus, you will be able to make several trial runs (don't forget that this is a dangerous sport!) to gain the necessary skill for disgorging your sparkling wine. As you can imagine, this method is far from easy, especially if you are doing it alone. It requires concentration, exceptional dexterity, and a strong thumb, if success is to be attained with any certainty. It is not really recommended for amateur winemakers, unless they are resolutely determined, as there is a very high probability of losing a large part of the product.

Instructions

- **1** Purchase the wine-making equipment and champagne bottles plus caps at any home-brewing or wine-making store in person or online. Get some bottles of "base" wine. This can be Riesling or chardonnay if you want it to be white, pinot noir if you want to make pink champagne, or a good old dry red table wine if red champagne tickles your taste buds, or any other dry wine that's on special. They need not be expensive. Pour the bottles of wine together into a very clean bucket. Do not mix white wine with red or pinot noir.
- **2** Boil together one part water and two parts sugar to make a syrup, working on an amount of 2 to 2.25 oz. of sugar per bottle of champagne depending upon how dry or less dry you like it. Stir the syrup into the wine in the bucket and make certain it is well mixed without being too rough.
- **3** Add one packet of champagne yeast to the mixture and 1/4 tsp. per gallon of yeast energizer and mix well. Siphon the wine mixture carefully into well-washed champagne bottles and close with crown caps. Place the bottles upright in a cool place (65 to 75 degrees) and leave them for three months. Visit them once a month to tip each bottle upside down and then replace them in an upright position again. Do not shake.
- **4** Taste a bottle. If you think it is ready, and it looks clear, do not drink it all. Place the champagne bottles in your freezer for two or three hours until they reach a temperature of 25 degrees. A little yeast sediment on the bottom is nothing to worry about and might even indicate good sparkle. You might see a little ice inside the bottles when they are ready.
- **5** Meanwhile, pour 1 ounce of a new batch of sugar syrup for a brut, which is quite dry, and up to 2 ounces of syrup for sweeter champagne into a new batch of empty champagne bottles. Add a wine stabilizer tablet into each bottle. Place them in the freezer together with the bottles of champagne.
- **6** Once the refrigerated champagne has reached the desired temperature, remove it from the freezer one bottle at a time and decant the champagne into the bottles containing the now very cold syrup, taking care not to allow any sediment into the syrup bottles. Put in the stopper and wire it down. Tip the bottle upside down and back gently a few times to mix in the syrup.
- **7** The champagne is now ready. Store in a cool place or pour yourself a glass and enjoy! Refrigerate before imbibing for the best flavor.

Riddling Rack Plan



Note: All parts are put together with "Carpenter's wood glue" and drywall screws.