

How to  
**Make Wine**  
At Home

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# FORWARD

When I was in high school, me and a friend of mine heard this rumor that we could take some grape juice,

add some sugar,

throw in some yeast,

put a balloon over the bottle and then wait a month and we would have – ALCOHOL!

And that is what we were after at that time.

And it worked! We sat down on a Friday afternoon and passed that jug back and forth and within an hour, we were both acting very stupid. Ahhh... those were the days.

Unfortunately, I wouldn't drink that stuff now. Almost 30 years later, I have come to enjoy GOOD wine. Wine that costs \$35 to \$60 a bottle. You could call me somewhat of a wine connoisseur.

About 15 years ago, it came to my attention that it was possible to get the same kind of flavor and consistency by making wine at home. From that moment on, I began experimenting.

This book will show anyone how to get a very good start on making quality wine from home. No need to keep paying huge prices, AND, you can make all you want...sort of.

The U.S. Government has put a limit on us – 200 Gallons/year. That's the law. But – that's 1000 bottles of wine – about 3 bottles a day, plenty for you and me.

## **How to Make Wine at Home**

There is not much to making wine. Humans have been making wine for thousands of years. People make wine and DRINK it in the Bible.

It's not rocket science.

The earliest mention of winemaking is in some Mesopotamian texts – hieroglyphics – and they detail how to ferment the juice of grapes. Apparently, we were making it long before written text.

It turns out that when grapes grow, there is actually yeast ON the outside of the grapes. If all you do is crush the grapes and keep the juice around 75 degrees, the juice will ferment all by itself.

Of course, the types of yeast found on the outside of grapes are many and not all of them produce a fine tasting wine. Over the years, winemakers have developed many different strains and varieties of yeasts. These yeasts are specifically designed to extract exactly what we want out of the grape juice or fruit juice.

You could use Baker's yeast and it would work. Feel free to do so if you do not have access to a local wine or brew shop. Or, you can go [HERE](#) to an online store and order some EC-1118 winemakers yeast.

## *A special note about Sugar and Fruit - - -*

Grapes that are harvested at exactly the correct time are brimming with natural sugar. They are tested electronically while still on the vine to determine the exact peak time of day when the sugar content is the highest. These types of grapes never need sugar added – they already have enough.

Grapes that you get at the grocery store are harvested unripe so that they will not spoil during the delivery to your supermarket. It is difficult, at best, to make a good wine from these store bought grapes. They were not ripe when they were picked, and the sugar content was probably very low. If you use grapes from the store, you will need to check the sugar content with a hydrometer (see equipment chapter) and you will probably need to add quite a bit of sugar.

The best thing to do is always use a hydrometer and check the sugar content yourself.

If you are going to buy Fruit Juices at the store, use natural whole juices with NO PRESERVATIVES. Preservatives will KILL YEAST – that's what they are there for.

A word to the wise – read the label.

## Chapter 3 – Patience

When I first set out to make my own wine, I discovered one thing very quickly: Patience is a virtue.

Making GOOD wine takes some time – and by time I mean months – not days or weeks. Also – patience is required during the fermenting process, the racking process, the bottling process, and the ageing process.

Patience, Patience, Patience. Believe me – it will pay off. Go SLOW.

Can you make wine fast and drink it? ABSOLUTELY!

However, no one else but you will drink it. It will not taste good to anyone else but you (and YOU will usually think it tastes bad, too). Sorry.

Can you make wine fast and bolster the alcohol content so that it is 18% or more?

ABSOLUTLEY!

But again, YOU will be the only drinker of this wine.

I have included a section in this book on making fast wine, and also making fast lightning wine. Be my guest. Just remember that no one except you will see any drinkable value in what you have produced except you. It just won't taste good.

If you ever feel like you have to hurry, you are doing something wrong. You will read over and over that it's BAD to expose your wine to AIR. Yes, that's true.

But we are talking hours and hours – that's bad, not just the few minutes it takes to rack the wine from the primary fermentor to the secondary. So, don't worry about letting your wine come into contact with the air for a few minutes, it's not going to hurt it.

When I was first starting out, I had read so many times about how it's SO IMPORTANT to keep air away from your wine that I would almost panic when it was time to move the wine from one vessel to another. I ended up sloshing the stuff all over the place.

It's best just to go slow.

## **BEFORE WE GET STARTED**

Planning and preparation. There is a lot that can be said about those two words. Especially when it comes to making wine.



You should PLAN what you are going to make. You should PREPARE everything in advance. This way, you will not get caught in the middle of doing something and not have what you need.

You should also PLAN where your work area will be. Sure, you could do this in your kitchen, but it's a lot nicer to have a spot staked out that is your "WINEMAKING" area. When I first started out I used a corner of my basement. I set up 2 work tables and a set of shelves.

That's really all it takes.

I have since progressed and now have a little nicer setup. I have a nice work desk area and two storage cabinets large enough to hold my primarys and secondarys.

Nobody bothers my stuff and I know where to find what I need at a glance. I recommend the same thing for you. Make it EASY.

## GATHER WHAT YOU WILL NEED

Before you ever crush the first grape, process the first peach, or open the first can of frozen concentrate, get everything you are going to need. This includes corks, bottles and a corker. It also includes siphon tubing, chemicals, and primary and secondary fermentation vessels.

Read and then re-read the recipe to make sure you have everything before you get started. There's nothing quite like having your juice in the primary and realizing that you don't have any Campden tablets.

Oh, and it's Sunday afternoon and the wine shop isn't open. Great.

Plan ahead. Check your list. Make sure everything is together BEFORE you get started.

## Cleanliness is Next to Godliness

Did you ever wonder how those scientists get bacteria and other little bugs to grow?

Simple, they put them in a nice warm sugar/water mixture. Just about all kinds of microscopic bugs love that kind of environment. So – DON'T give it to them.

We want one kind of microbe to grow – not hundreds. We want our yeast to grow and that's all. We are not trying to have a microbe party and invite everyone.

Remember to clean and sanitize everything you will be working with...and ON. This means all surfaces in your work area should be routinely disinfected. Dirty equipment results in very crappy wine with nice little unpleasant tastes. You can clean your spoon. But if you

put it down on your workbench and then pick it back up and put it in your wine.... Well, you're "spreading germs" as momma used to say.

If all of your work surfaces are sterilized, you will be AOK.

The best thing to use is something called B-Bright Sanitizer. It is a sulfate powder that you mix with hot water. You can just wipe this mixture on everything and it kills all the microbes. If you don't have it or cannot get it, crush up a Campden tablet and fully dissolve it in a half gallon of hot water. This is a nice sanitizing substitute.

Before you start, you want to wipe down EVERYTHING you are going to use with the sanitizing solution. This includes the inside and outside of your fermentors, as well as all of the equipment you may use. KILL all the bugs at the beginning. That way, they won't have a chance to grow later.

Sulfites are very good at this bug killing thing. Remember, all of the antibiotics in use today are made from sulfur and sulfites. Hmmm – must work.

## FERMENTATION VESSELS

You need a fermentation vessel like a milk jug or a sanitized food grade storage container. The food grade storage container is best and you can get them free by just asking at a restaurant. I do not recommend using the ones they use for pickles.

You can use milk jugs, sanitized of course, or you can also use 1 gallon wine jugs. The wine jugs actually work pretty good and it's easy to find stoppers to fit in the top of them.

## **LET'S GET STARTED!**

All you need is some kind of fruit juice (or vegetable or spice or pepper or whatever!) that has a sugar content high enough to let yeast feed on it. This is what fermentation is – it's YEAST eating SUGAR.

The byproducts of the yeast consuming the sugar are alcohol and carbon dioxide.

Remember – sanitize everything before you begin.

The best way to know if you have enough sugar is to follow a good recipe, or, to measure the Specific Gravity. Usually – a specific gravity of about 1.1 will do it. (Learn more about specific gravity and hydrometers in the [Complete Illustrated Guide to Homemade Wine.](#))

If the sugar content is not high enough, you will need to heat some water on the stove and dissolve sugar in it and then pour it into your fruit juice. You can use ice to cool it down. Your mixture should taste sweet but not overpoweringly so.

If the sugar content is too high, or it tastes sickly sweet, add water and give it a good stirring.

Ad 1 crushed Campden tablet per gallon of juice mixture. Put a towel or something over the bucket or use a rubber band and put a paper towel over the top of the jug. We want to let air in and out but not bugs or little flying insects.

At this point, if you were a little more into advanced winemaking, you would want to measure the acid content and also add any other additives like pectin enzyme or nutrient. These are all covered in detail in [The Complete Illustrated Guide to Homemade Wine](#).

Let this mixture, called the “MUST” sit overnight. This lets the sulfur gas go into solution, kill the microbes, and then come out into the air. Don’t worry, you won’t even smell it.

## THE FIRST STAGE

Once you have the sugar content right and your must sanitized with sulfites, then all you need to do is toss in (pitch) the yeast (some yeasts make very good wine while others, like bakers yeast, do not).

Find out more details on yeast in the [Complete Illustrated Guide to Homemade Wine](#)). The temperature of the mixture (“must”) should be between 72 and 78 degrees F and should be kept there.

Within 24 hours, you will have fermentation happening. The mixture will be bubbling and it will sound like a can of soda that you have opened. It will be fizzing.

This is called the “Primary Fermentation” or the 1<sup>st</sup> Stage Fermentation. The first 5 to 10 days is really when all the action takes place. Almost all of the alcohol is created during this time.

After it has been bubbling or fizzing nicely for at least 24 hours, either stir the must (if it’s in a food container), or give the jug a pretty good shake. If you are stirring, remember to SANITIZE whatever you are going to stir it with BEFORE you put it in the must.

This agitation redistributes the sugar and the yeast and will cause even more fermentation to take place...which is exactly what we are looking for.

Let this mixture ferment for at least 8 days with just a paper towel or rag rubber banded over the opening of your fermentation vessel.

Once 8 days has passed, you will need to put on an airlock of some sort. An airlock does nothing more than let the carbon dioxide escape but not let air in. Usually, you can find the materials to make one of these around the house. ([Complete Illustrated Guide to Homemade Wine](#) has a video of how to make a simple airlock from household items).

Now, if you want to boost the alcohol content, the 5 to 7 day point is where you would do it. All you have to do is add some concentrated sugar water to the must. This give the yeast something else to feed on. Don’t wait until all of the fizzing and bubbling has stopped – just wait until it starts slowing down.

To make sugar water, just heat a cup of water on the stove and put sugar in it until it won't dissolve any more. Cool it down and then add it to the must.

The next day, you should see renewed vigor in the bubbling department.

## **RACKING**

Sounds painful doesn't it?

In this hobby and business, instead of saying "siphon the wine in the primary container into the secondary container", we say RACK the wine from the Primary to the Secondary. Why? I'm still researching that one...

After about 4 days of no visible bubbling, probably on day 10, it's time to remove the wine from the Primary and put it in a secondary container that's about the same size as the first one.

The reason is that you will have a LOT of DEAD YEAST (called lees) on the bottom of the Primary vessel and it can give the wine a bad flavor if it sits on it for days. So the purpose is to get all the wine, and leave as much of the dead yeast, or lees, as you can in the Primary.

Once you have racked the wine over, you may have lost a little so top up the jug to near the top with regular tap water.

By the way, if you are using the 5 gallon food container, you have probably figured out by now that you will have to move that 5 gallons

of wine into another 5 gallon container. If you are making this much just starting out, you need to get a 5 gallon glass CARBOUY. You can buy them at wineshops or online for about \$25 to \$40.

Put an airlock of some kind on your secondary and ..... WAIT.

## THE SECOND STAGE

Leave the airlock on for 2 to 4 weeks. At the end of 4 weeks, it's wine. The longer you let it sit in the secondary, the better the wine is going to be, up to a point anyway.

The wine sits unexposed to air during this second stage. The little yeast that is still active is still turning sugar to alcohol. Let it do it's thing. This prolonged time also lets all of the smaller solids that can make a wine cloudy fall to the bottom.

When it's time, you will have to carefully pour off the wine from the sediment that has settled at the bottom of your vessel.

If your wine is cloudy, let it sit for another week or so with the airlock on until it clears. (the [Complete Illustrated Guide to Homemade Wine](#) details several methods of clearing wine).



The Secondary fermentation stage, depending on the type of wine you are making, can sometimes take 3 months. Mead, a wine made out of honey, can sometimes take 2 months in the primary and then 6 months in the secondary.

The key is to find a recipe and follow it.

## **STABILIZING**

Okay, we are done with the primary and the secondary fermentation! The wine looks clear!  
We are ready to bottle it right? **WRONG.**

This fermentation thing is a microbiological process. Although we cannot see it, we may still have a small amount of fermentation going on in the wine.

If we were to just bottle it now, the small amount of carbon dioxide being produced could cause our bottles to explode. We need to do something to **STOP** the fermentation from taking place.

This is called Stabilizing the wine.

The most common stabilizer is called Potassium Sorbate. The common dosage is ½ teaspoon per gallon. You can get this at a wine shop – or online.

Potassium Sorbate doesn't kill the yeast, it just makes it harder for the yeast to multiply and reproduce. It's sort of like a contraceptive. It will not stop the fermentation instantly but over the next few days.

After you add the stabilizer, you will need to wait about 3 days for it to do it's work and then you will be ready to **BOTTLE YOUR CREATION!**

## **BOTTLING YOUR WINE**

I just go to local restaurants and ask them to save me cases of bottles at a time. If you want, there are wineshops that will sell them to you for pretty cheap – but why?

Soak used wine bottles in hot soapy water until the labels begin to fall off and then scrub them up nicely so they are sparkly and have no label glue left on them.

This is part of that **PLANNING** thing I mentioned earlier. Get **ALL** of the bottles you will need ready **BEFORE** you are ready to bottle the wine. You will also need corks. Again – online or a wine shop.

Uhhh.... Okay I admit it, I have even used **USED** corks. But **ONLY** after I soaked them in **HOT, SULFITE** saturated water for about an hour.

The corks are **LARGER** than the hole in the top of the wine bottle. This presents a problem for home brewers. This is the only real tool

you MUST buy. If you cannot get one (if you're reading this, you can obviously get one online), you will have to use something like re-sealable plastic pop bottles to put your wine in. Makes me shudder just thinking about it....

Sanitize everything, the bottles, the corks, and the siphon tube that you will use to siphon the wine from the secondary into the bottles. (There are a few nifty tools that can help you with this process and they are all covered in the [Complete Illustrated Guide to Homemade Wine.](#))

You will need some way to “pinch” the siphon tube to stop the flow of wine when the bottle gets nearly full.

Fill each bottle to the bottom of it's neck. You can fill ALL the bottles and then cork them all at the same time. Again, a little air isn't going to spoil the batch. When you are siphoning into the bottles, be careful to splash the wine around as little as possible. You DO NOT want to aeriate the wine, just quietly siphon it into the bottles.

Use a corker that you have purchased. The more expensive the corker, the easier it will be to use. For a long time, I used a simple hand corker but I was only bottling 30 bottles at a time.

I have graduated to a larger one because I now make 60 to 90 bottles at a time. The hand corker is just too much work for that many corks.

## **WRAPPING IT ALL UP**

There are literally hundreds of things you can do to improve the quality of your wine. There are different additives, different flavors, fortifiers, etc. In addition, some fruits or wines require chemicals be added before primary fermentation.

You can find recipes, learn to make champagne, learn to make brandy and many other things once you get the basics of winemaking down. Find out more in the [Complete Illustrated Guide to Homemade Wine](#).

This book is not intended to be an all out, in-depth, encompassing review of the winemaking process. It is more of a beginner's overview and guide. Using the techniques and information contained in this book will get anyone started making GOOD homemade wine.

I look forward to hearing about your winemaking adventures! Please watch your email for upcoming issues of the Winemakers Secret eLetter.

In the eLetter, you will learn more valuable tips and tricks to making your wine better and better. In addition, there will be questions and answers from our subscribers as well as winemaking success stories!

Cheers!

Mike Carraway  
Your 21<sup>st</sup> Century Winemaking Coach  
[www.How-To-Make-Wine.net](http://www.How-To-Make-Wine.net)

## **BONUS – a Few EXCELLENT Wine RECIPES**

### **Peach Wine**

Category Fruit

Yield One Gallon US

Beginning SG/PA 1.1

#### Ingredients:

2 1/2 lbs. peaches (about 10 peaches)

7 pts. water

Enough sugar to make the SG = 1.100 (about 2 lb)

1 campden tablet, crushed

1 1/2 tsp. acid blend

1 tsp. pectic enzyme powder

1/2 tsp. yeast energizer

1/4 tsp. tannin

1 pkg. wine yeast

Instructions:

1. Wash peaches, quarter, remove stones and any brown patches.
2. Place peach quarters in nylon straining bag and place in primary.
3. Crush peaches, extracting as much juice as possible.
4. Add dry ingredients to primary except yeast.
5. Add hot (tap hot works fine) water and mix thoroughly.
6. Cover and let set for 24 hours.
7. After 24 hours, add wine yeast.
8. Ferment for 3-5 days (SG=1.040).
9. Rack into secondary and attach lock.
10. Rack in 3 weeks and again in 3 months.
11. Clarify, stabilize, bottle and age as expected.

Blackberry Wine

Category Fruit

Yield One Gallon US

Beginning SG/PA 1.1

Ingredients:

- 4 lbs. blackberries (fresh or frozen)
- 4 1/2 cups sugar
- 1 tsp. yeast nutrient
- 1 tsp. acid blend
- 1 tsp. pectic enzymes
- 1 campden tablet
- 1 pkg. all-purpose or Bordeaux wine yeast

Instructions:

1. Crush the fruit in the primary and pour in all the additives and the sugar.
2. Stir well and top up to 1 gallon with hot water.
3. Let sit until cool and the sulphate (Campden) dissipates. (about 24 hours).

4. Add the yeast and start the ferment.
5. Rack clarify and bottle as per normal.

## Strawberry Wine

Date 2006-06-20

Category Fruit

Yield Five Gallons Imperial

Beginning SG/PA 1.095

### Ingredients:

4 kg. damson plums (freeze and thaw out to remove pits and improve juice extraction)

2 kg. strawberries

16 kg. (1 case) palomino grapes

1/2 liter red grape concentrate

15 liters water

1 tbsp. pectic enzyme

2 tsp. nutrient

1 tsp. sulfite crystals

Sugar to SG 1.095

Acid blend 'B' to 3.8 sulphuric

1 pkg. wine yeast (Lalvin D 47 or K1-V1116)

## Instructions:

1. Chop fruit and add to crushed grapes.
  2. Put into primary fermentor and stir in all ingredients except yeast.
  3. Make SG and Acidity adjustments.
  4. Cover primary and let sit 24 hrs.
  5. Sprinkle yeast and let sit undisturbed on surface for 2 hours.
  6. Stir vigorously and cover primary.
  7. Stir several times per day until Specific Gravity reaches 1.030 (4 to 5 days). (continued on next page)
- 
8. Squeeze juice from ferment and place into glass secondary.
  9. Attach airlock.
  10. When fermentation is complete (S.G. 1.000 or lower / 15-20 days) rack off sediment into clean secondary and reattach airlock.
  11. Rack every 7-8 weeks and add 0.1 gr/l. sulfite crystals during aging (6-7 months).
  12. Add 1/2 tsp sulfite crystals before bottling.
  13. If you desire a sweeter wine, at this point can add 1 1/2 tsp. stabilizer and a solution of 30 gr/l. dissolved sugar.



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