

How to make your own wine at home

..and have lots of fun..



Introduction



Winemaking is art

&



science at the same time!



Questions

- Why would you want to do it?
- Is it legal?
- Is it safe?
- Is it expensive?
- Is it difficult?



Pros:

- winemaking is fun
- it saves you money
- you learn about chemistry
- you can get creative
- you are always prepared for a party
- you are in control of the chemicals that go into your wine



Cons:

- it takes time, patience is essential
- a starter kit will cost some money
- you can make mistakes and lose your work
- cleanliness is at the essence



The Winemaking Process

1. Primary Fermentation
2. Secondary Fermentation
3. Maturing
4. Stabilization and clearing
5. Bottling



1. Primary Fermentation

- clean equipment and work surfaces
- put ingredients into a primary fermentation bucket
- measure the specific gravity (SG)
- add the yeast
- within 24 hours you notice activity like bubbles and smell
- this stage usually lasts about 5 to 10 days
- once activity has slowed down measure SG again
- if the SG is below 1010 move to next step



2. Secondary Fermentation

- clean equipment and work surfaces
- rack your wine into a clean container
- top-up with sugar water or original
- take another SG
- fit airlock and move wine into a cooler environment
- wait and watch



3. Maturing

This is where you try and forget about the wine.

Leave it in a cool, dark place and allow it to do its job.

Check the demijohn after about 4 weeks and see if there is a lot of sediment at the bottom. If it is, rack again into clean container.

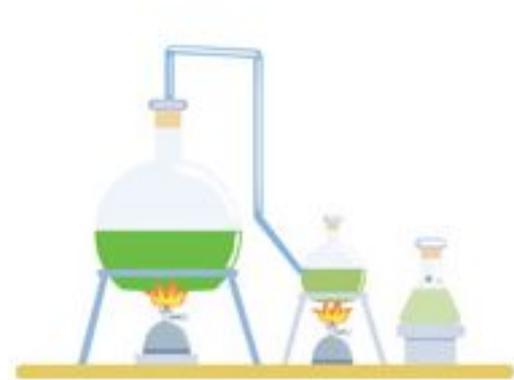
Remember, time is on your side!



4. Stabilisation and Clearing

After about 4 - 6 month all activity has ceased. Now it's time to move on

- clean equipment and work surfaces
- measure SG
- rack the wine into clean container
- add stabilizer (fermentation stopper)
- remove any gas from the wine
- if the wine is still cloudy add clearing agent



5. Bottling

- clean equipment and work surfaces
- taste the wine and add sweetener if required
- if you have produced a gallon (4.5 l) you will need 6 bottles
- soak the corks in boiling water for about 20 minutes
- siphon the wine into sterilized bottles
- insert the corks with a corker (£ 3 - 15 from wine shops)
- label the bottles, minimum information is the fruit used and date
- leave bottles standing for 2 days, then store them horizontally



What tools do I need?

- primary fermentation container
- secondary fermentation container - Demijohn
- airlock and rubber fittings
- specific gravity measure
- thermometer
- siphon tube and fittings
- straining bag
- corker and corks
- bottles



What Chemicals do I need?

- sterilizer
- yeast
- yeast nutrient
- pectolase
- tannin
- acid blend
- fermentation stopper
- sweetener
- clearing agent



How to rack/siphon wine

- make sure the new container is about 2 feet (60cm) below the wine
- put one end of the siphon into the wine
- crouch down, take the other end of the siphon tube and suck
- once the flow starts insert it into the lower container

Note: this process is a bit difficult at first and takes a while to perfect. Practice with water first.



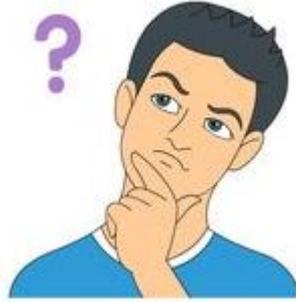
How to determine the alcohol content

This is where the specific gravity measurement comes in.

- take the SG at the beginning after adding all the sugar but before you add the yeast. Make sure the temperature of the liquid is about 18 - 25 degrees.
- take a SG measurement every time you rack and write it down
- once you have added the fermentation stopper take the final SG
- the alcohol content of your wine is (Start SG - Final SG) divided by 7.36
- E.g. $(1090 - 990) \div 7.36 = 13.6\%$

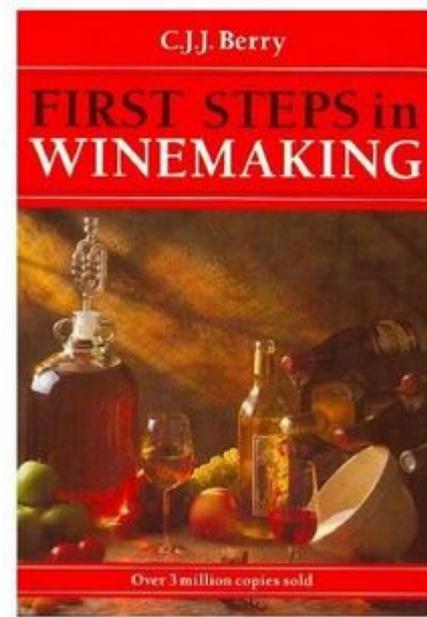


How to get started?

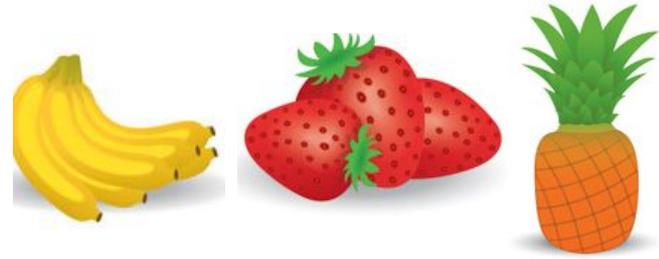


- Visit the Brew Store on South Clerk St in Edinburgh and buy a starter kit.
- Go online and buy a starter kit from a website
- “Google it”
- Read a book

First Steps in Winemaking, C.J.J. Berry

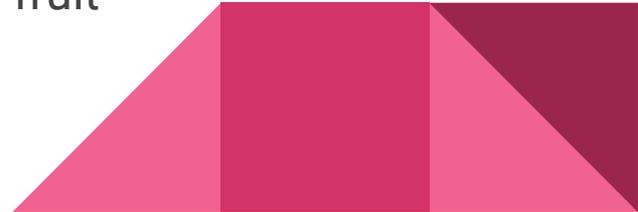


What fruit can I use for my wine?



Once you went through a winemaking process with a starter kit you have enough experience to make your own brew. Below some examples that work nicely:

- banana
- tinned fruit like strawberry, red plum, figs, peach, pineapple
- fruit juices like apple, prune, red grape
- frozen fruits like cherries, blueberries, black forest fruit
- all the above but as fresh fruit...(most expensive and difficult)
- you can use veggies and flowers if you feel bored by fruit



The art of making Sake

酒

Sake is a traditional Japanese brew, over a thousand years old.

It is made like a beer but tastes like a wine (best of both worlds).

Sake requires a fair amount of work but is quicker to do than wine.

The chemical reactions during the brewing process are fascinating.

It can be served warm or chilled.

Most Sake has between 16 and 20% alcohol.

When it comes to Sake timing is critical!



The simplified process:

- wash and soak short grain rice
- steam rice and add koji seeds
- let develop for 3 days in very warm place (30 degrees)
- add more steamed rice, citric acid, yeast and soft water
- leave in a cool place to ferment, stirring daily
- after 20 days pour the liquid through a straining bag



..finally...

- leave in cool, dark place to clear for 1 week
- rack into a clean container
- bottle 1 week later
- pasteurize the brew in bottles
- cork and store in cool place away from light



Making of Sake: pictures from left: steaming sushi rice, fermentation process with bubbles, clearing Sake in demijohn, pasteurization process in bottles.



The Price of Winemaking

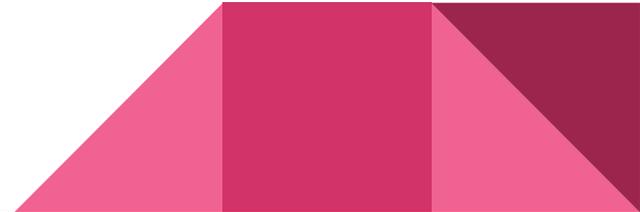
all prices below are including sugar and chemicals

Method/ Ingredient	Price	Price p bottle	Notes
Wine kit from brew shop	12.5	2.3	based on 5.5 bottles
fresh strawberry	16	2.6	6 bottles
cherrys and berry's	14	2.3	6 bottles
blueberry	12	2	6 bottles
raspberries	12	2	6 bottles
juice concentrate	8	1.3	6 bottles
banana wine	6	0.85	6 bottles
made from tinned fruit	6	1	6 bottles



Problems and Questions

- How do I know the fermentation has started?
- How to get the siphon started?
- My wine smells strange.
- My wine looks strange.
- How do I know that my deep red wine is clear?
- My wine stopped fermenting too early.
- I don't have time to siphon/bottle today.
- My wine is very acidic.
- My wine is too sweet.



..even more questions..

- What is the white stuff at the bottom?
- Best places to store the wine?
- How to sterilize bottles?
- When to discard a wine?
- How long to wait before drinking bottled wine?
- How long can I keep my wine?
- How important are expensive ingredients?
- I forgot where I was...

