

Transformation Mysteries of Grain & Grapes



Just as the life force of an animal is contained in its blood, so are fermented beverages infused with the life force of the plants from which they are made... When the spirits of these plants are personified by a patron deity, the beverage then becomes the "blood" or "milk" of that god or goddess which embodies all the life-giving, stimulating, and other supernatural and magical virtues of these most sacred of substances.

Mikal Aasved, 1988, pp 781-2

As part of my research for this packet, I've spent many happy hours wading through Stephen Harrod Buhner's book *Sacred and Herbal Healing Beers*. He's a passionate advocate for a return to a time when people recognized the sacred nature of plants and trees they used to create fermented beverages that were healthful, nutritious, sacred and intoxicating.

Mead is the oldest of the fermented drinks. In the Orphic myth, it is noted that Zeus was made drunk with honey "for wine was not." One of Zeus's epithets was *Melissaios*, meaning "one belonging to the bees."

Ale was originally the word for any fermented beverage made from grain. Beer was reserved as the term for ale that had hops added during brewing. Ale comes from the Indo-European root *alu*, which occurs in words relating to sorcery, magic, possession and intoxication, such as hallucinate. Helen Farias notes that ale is magic because, like bread, it has been transformed from radically different materials, and it has the ability to transform our consciousness.

In many cultures around the world, legends tell that humans learned to make alcohol from the gods. Some scholars believe that our ancestors settled down and began growing grains to make fermented beverages. The development of the earliest kinds of wheat and barley happened simultaneously with the development of fermentation.

In most early societies, women presided over the brewing of beer, which was usually made from local plants and herbs that had medicinal or sacred qualities. Brigit the goddess of Ireland is sometimes called Bride the Brewer. And Hathor of Egypt was fond of beer. She was known as the Lady of Intoxication and her worshippers danced, sang and drank in her honor.

Wine is usually used to describe drinks made of fermented fruit, although the Romans called fermented barley water (which was drunk during the Eleusinian Mysteries) barley wine not beer. Wine comes from the same root word as vine and means the same thing. Dionysus was credited with bringing wine to the world and his symbol, an ivy bush, was the standard medieval tavern sign.

Wild Yeast

Stephen Harrod Buhner in *Sacred and Herbal Healing Beers* devotes a chapter to the marvels of Yeast, the little invisible creatures also known as *Saccaromyces*, from the Greek for sugar (*saccagro*) and fungus (*mycete*). Yeast are fungi that eat sugar and turn it into carbon dioxide (which is what makes bread rise while baking and also promotes alcohol absorption into the stomach) and ethyl alcohol (thus creating an intoxicant). Yeast is also a food—a rich source of B-complex vitamins and protein.

Like plants and animals, human have domesticated yeast. And gradually the tame yeast became preferred, because it's more predictable. But there are more than 30 different kinds of wild yeast which can be used to make beer. Each type has its own flavors and preferences and qualities. Buhner says wild yeast bears the same resemblance to domesticated yeast as a wolf does to a dog.

In earlier times, people used to prepare a sugary offering (for instance of malted grain or honey or the sweet sap of trees) and invite the wild yeast to come and partake of it, often through prayers. Once the yeast has entered the brew, it begins to bubble and gives off a thick head of foam and clouds of carbon dioxide which prevent other yeast from entering.

Ancient brewers had many ways of preserving the yeast once it arrived. South American and Egyptian clay brewing pots were incised with lines inside where the yeast could hibernate until the next year's brewing. In Norway, brewers used juniper branches which were put into the bottom of barrels, then pulled up and hung in the rafters to dry after the brew was done. The next year the same branches were laid down in the barrel again and the yeast woke from hibernation.

Yeast likes a temperature of around 70 degrees, just like we do. As the temperature drops the yeast slows down and when it reaches 41 degrees, it goes into hibernation. Although careful temperature control is now part of beer and wine-making, in earlier times brewers simply watched over the yeast. Norwegian brewers touched the brew with the back of the hand to judge the temperature, the equivalent of an American mother shaking out the warmed milk in a baby bottle onto her wrist to be sure it is body temperature. This is the "tender" side of the hand used to caress lovers and children. The palm is too rough for showing love.

Another way to preserve the yeast for another use was to put a birch log into the brew. The yeast would burrow deeply into the log looking for the sugar in its sweet sap. When the log was removed and dried, it would crack and the yeast could live deep inside the cracks until the next year's brewing.

The brewing process was a sacred one in ancient cultures. In some places, the yeast was asked to come into the brew with noise and dancing. In other places, silence and prayer helped evoke the spirit of the brew. An old Norwegian brewer said she always poured a little of the sweet wort in the four corners of the brewing house for "the corner crones."

The Ancient Magic of Making Beer

Buhner has a great chapter on this topic at the end of his book on sacred and herbal beers. He encourages readers to return to the simple methods of the earliest brewers, rather than following the high tech instructions found in other books on beer-making, which require investment in equipment and sophisticated formulas.



Buhner's four heretical rules for brewing are:

1. *Don't get tense, worried, or think you don't know enough. Remember that although you are re-learning an ancient human art and expression of plant medicine, it is important to have fun. If you screw up a bunch of beer, it makes a great fertilizer for the garden, it's not that expensive, and you can always make more.*
2. *Give yourself permission to have fun, make mistakes and make a mess of the house and kitchen. Brewing is a messy, chaotic, wet, stimulating and strenuous activity that produces euphoria and health—sort of like sex....*
3. *Take pride in being brewing-language illiterate and equipment deficient. You only need to know four terms: sugar, water, herb and yeast. You can use the word wort if you really want to. You don't really need a hydrometer or anything else, though a thermometer is helpful (you don't really need that either).*
4. *Figure out what works for you and don't be embarrassed by it.*

To make one gallon of beer (the equivalent of 2 to 3 six-packs) you will need:

1 gallon water	Preferably filtered or spring
Yeast	You can use bread yeast but it has a stronger flavor. Buy yeast specifically for brewing at a homebrew store (Buhner recommends a Danstar brand of Windsor yeast) or entice some wild yeast.
Herb	See recipes
Sugar	Buhner recommends 1 lb brown sugar OR 7/8 lb malt extract & 1/2 cup brown sugar OR 8 oz brown sugar and 12 oz molasses

You don't need hops, chemicals or additives. Once you make a beer you like you can use the excess yeast over and over again, like a sourdough starter. Just put it in a bottle and when ready to use, pour it into a clean container and give it sugar.

Malting is a little more complicated, involving germinating grains (to begin the process of conversion of starch into sugar) and then sparging (basically pouring water over the grain mixture and allowing it to seep through slowly). See Buhner's book for more details.

You don't need to invest in a lot of equipment before you decide if making beer is something you enjoy. All you need is:

- 2-1/2 gallon pot (for cooking)
- thermometer if you want (candy or brew thermometer)
- plastic trash can or glass carboy (homebrew store) in 2-1/2 or 5 gallon sizes
- airlock (if using carboy—available at homebrew stores) or sheet of plastic
- bottles (recycle your own or purchase at a homebrew store)
- bottle caps (homebrew store)
- bottle capper (homebrew store—or you can buy beers that have attached porcelain caps and recycle the bottles)
- clear plastic hose (aquarium supply or homebrew store)

Brewing Beer

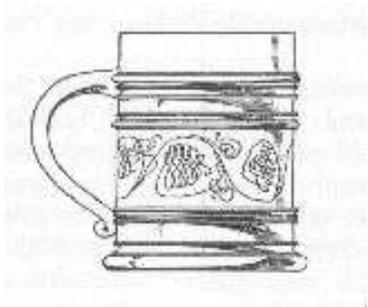
You may need to "wake up" your yeast overnight. Add sugar to lukewarm water, pour in the yeast, cover it with a plastic sheet and let it work overnight.

Clean the fermenter (that's your plastic trash can or carboy) and the airlock (or plastic sheet) with hot soap and water. Clorox is not recommended as you will have to rinse it well. You can use an antiseptic herb solution like sage, wormwood or juniper.

Boil 1 gallon of water, your herb (if you put the herb in a muslin bag, it will be easier to remove.) and a sugar source, for example, 12 ounces molasses and 8 ounces brown sugar. Boil for 15 to 60 minutes, turn off the heat, let it cool, then strain out the herb (or pull out your giant tea bag). Let the mixture cool to 70 degrees--here's where you need the thermometer, or you could wait until it feels slightly warm to the back of your hand. (A recipe for ale from 1695 talks about waiting until the wort is "Milk warm.")

Pour the herbed sugar water (this is called the "wort") into your fermenter. Add the activated yeast and cover with the plastic sheet or insert airlock. It may take a while for the yeast to wake up but you will know it is working when you see a thick froth forming on the top of the liquid in the fermenter. [Buhner doesn't say what to do but I assume you lift the plastic sheet from time to time to release the built-up carbon dioxide—the airlock will do that for you if using a carboy.] When the yeast is done working, probably six or seven days later, there will be only a few floating specks of foam on top of the wort.

Clean your bottles and caps and plastic hose. Put about 1/2 tsp of sugar in each bottle. Siphon the beer from the fermenter into the bottles. Fill them about as full as bottles of beer you buy at a store. Cap and store in a cool, dark place for one to three weeks or until the yeast have eaten the new sugar and carbonated your beer. This is probably the most dangerous part of the process as bottles under too much pressure can explode, spraying glass and beer.



Herbal Beers

Buhner's book is stuffed with recipes for fermented drinks made from agave, banana, barley, calendula, cardamom seed, corn, dandelion, elderberry, eyebright, ground ivy, heather, honey, juniper, lemon balm, mandrake, manioc, maple, millet, nettle, peppermint, pine, rice, sage, spruce, St. John's Wort, sweet flag, tansy, wintergreen, wormwood and yarrow (and that's not all). I've reproduced a few recipes below:

Mugwort Ale

Mugwort (*artemisia vulgaris*) is one of the sacred herbs of the ancient Europeans. Wreaths of smoked mugwort leaves have been found in ancient Irish archaeological sites. The Chinese use it for protection (and in the treatment of illness). Ancient brewers put mugwort leaves on top of the fermenter to ward off bad spirits.

3 pounds brown sugar
24 oz molasses
4 gallons water
2 oz dried mugwort
yeast

Boil sugar, molasses, water and herb for 30 minutes. Cool to 70 degrees F and strain. Pour into the fermenter and add yeast. Ferment for about a week or until complete. Prime bottles with 1/2 tsp sugar, add the ale and cap. Ready to drink in 10 to 14 days.

Rosemary Ale

Rosemary, known as "the herb of remembrance" possess at least 24 antioxidants, which consume the free radicals that play a part in Alzheimers. It also contains six compounds that prevent the breakdown of acetylcholine, which is necessary to the transmission of impulses across nerve synapses, thus it is useful in treating Alzheimers, Parkinson's and multiple sclerosis.

3 pound can malt extract
2 pounds brown sugar
4 gallons water
3 oz dried rosemary
[the 1695 recipe for Rosemary ale includes a few cloves]
yeast

Boil malt extract, sugar, herb and water for 30 minutes. Cool to 70 degrees F and strain. Pour into the fermenter and add yeast. When fermentation is done, siphon into bottles primed with 1/2 tsp sugar and cap. Ready to drink in 10 to 14 days.

Wine Making 101

This summer I took a class on making fermented beverages from my favorite local herbalist, EagleSong. She offered us sips of various wines from her cellar, including a 2001 rhubarb wine with hawthorn flowers, a 1997 Elderberry and Oregon Grape wine, and a 1999 Oregon Grape and Blueberry wine. Some were too sweet for me, since my taste buds are used to more austere wines made from grapes.



Grapes are the perfect fruit for making wine as they contain the right proportions of liquid, sugar, acid and tannin to create the complex flavors of the most sophisticated wine, plus the yeast needed to begin the fermentation process lives on the skin of the grape. For centuries, wine-makers have experimented with ever more complicated ways of controlling the wine-making process, including introducing specific kinds of yeast, adding chemicals to filter out impurities and keeping the wine at a specific temperature. But lately the trend in wine-making has been to return to older more natural ways of making wine.

The research of Louis Pasteur, the scientist first responsible for identifying the organisms that caused milk to spoil, was subsidized by the French wine and cheese industries who had a vested interest in making sure these rather lively processes went well instead of turning sour. But the emphasis on killing microbes which developed as a result of Pasteur's research went overboard, as Pasteur himself seems to have recognized at the end of his life. The technological advances that have gone along with emphasis on sterility and control have intimidated people into thinking that you need complicated equipment to make wine and beer. Not so.

Home wine-makers have always made wine with simple equipment using a variety of substances including fruit, vegetables and herbs. Although these beverages don't taste like wine made from grapes, they do have certain benefits. They retain the flavors, nutrients and medicinal properties of the stuff from which they are made, while the fermentation process transforms them into alcoholic beverages, which has its own transformative effect. By the end of our tasting session in EagleSong's cellar, the room full of solemn students had become a group engaged in a lively and sometimes boisterous discussion.

You will need a few simple pieces of equipment:

1. Two plastic buckets for fermenting
2. Two glass gallon jugs
3. An airlock (can be purchased at any beer-making supply store or online. While you're there buy some wine yeast—try a few different varieties)
4. A plastic hose to use as a siphon
5. Several wine bottles and corks (or some other system of closing them—screw tops are fine.)

You can buy books on making wine that will give you complicated directions. What follows is the simple process that EagleSong uses which she learned from *Successful Wine Making at Home*, a book written by H. E. Bravery. The amounts of fruit and sugar will vary depending on what sort of wine you're making:

1. Crush the fruit in a plastic bucket and pour one quart of boiled water over it. Mix well. Add one-third of the sugar to be used to three pints of water and boil for one minute. Let this syrup cool and then add to the fruit. Add yeast (you can buy yeast at a wine-making supplier or try regular baking yeast). Let sit for seven days.
2. Strain the fruit pulp through fine muslin and wring as dry as you can. Put the strained wine into a clean gallon jar and put the pulp on your compost heap. Add another third of the sugar which has been boiled in one pint of water for one minute and cooled. Put an airlock in the neck of the bottle. Let it sit until it stops working.
3. Siphon the wine (leave behind the sediment) into another clean jug. Add the last third of the sugar which has been boiled for one minute in one pint of water and cooled. Replace the airlock and let the wine sit until it is clear. EagleSong says her wines usually clear around the time of the first hard frost.
4. Pour the wine into clean wine bottles and cap them. If you are using corks, soak them first and then pound in with mallet.
5. Let the wine age. Make several bottles and try them at various intervals to see when the flavor is right

You can use the simple process described above to make wines from different fruits, vegetables and herbs. Make sure the fruits are ripe—green fruit will give an acid taste to the wine. Experiment and keep records of what you did so you can duplicate your successes and learn from your failures.

Most recipes for home-made wine (including Bravery's) tell you to add chemicals like Campden tablets but EagleSong says she has not found these necessary in her wines. Sometimes a batch will go bad, but even Jack Keller who has a great website on home wine-making throws away batches of wine even though he uses the chemicals.

The recipe below from Bravery's book and makes about a gallon of wine (4 to 5 bottles). Try different types of fruit and yeast to create different wines. Less fruit creates a lighter-colored, lighter-flavored wine. Less sugar makes the wine drier. Keller also advises to adjust for the difference in sugar between store-bought fruit (picked before it was ripe) and fruit you gather yourself which has more natural sugar.

Blackberry Wine (Beaujolais Style)

Bravery notes that he won an award for best amateur wine with this recipe:
4-1/2 lb blackberries, 2-1/2 lb sugar, burgundy yeast, 7 pts water

Elderberry Wine

Adapted from a recipe at Keller's website at www.winemaking.jackkeller.net
3 lb elderberries, 2 lb sugar, 3-1/2 quarts of water, lemon slices, Montrachet yeast

Medieval Wine Recipes

These 17th century recipes come from *Sir Kenelm Digby's Closet*. I assume he doesn't mention adding yeast because the fruit has natural yeast on it.



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The Countess of Newport's Cherry Wine

Pick the best Cherries free from rotten, and pick the stalk from them; put them into an earthen Pan. Bruise them, by griping and straining them in your hands, and let them stand all night; on the next day strain them out (through a Napkin; which if it be a coarse and thin one, let the juice run through a Hippocras or jelly bag, upon a pound of fine pure Sugar in powder, to every Gallon of juice) and to every gallon put a pound of Sugar, and put it into a vessel. Be sure your vessel is full, or your wine will be spoiled; you must let it stand a month before you bottle it; and in every bottle you must put a lump (a piece as big as a Nutmeg) of Sugar. The vessel must not be stopped until it hath done working [i.e., fermenting].

Strawberry Wine

Bruise the Strawberries, and put them into a Linen-bag, which hath been a little used, that so the Liquor may run through more easily. You hang in the bag at the bung into the vessel, before you do put in your Strawberries. The quantity of the fruit is left to your discretion; for you will judge to be there enough of them, when the colour of the wine is high enough. During the working, you leave the bung open. The working being over, you stop your vessel. Cherry-wine is made after the same fashion. But it is a little more troublesome to break the Cherry-stones. But it is necessary, that if your Cherries be of the black sour Cherries, you put to it a little Cinnamon, and a few Cloves.

To Make Wine of Cherries Alone

Take one hundred pounds weight, or what quantity you please, of ripe, but sound, pure, dry and well gathered Cherries. Bruise and mash them with your hands to press out all their juice, which strain through a boulder cloth, into a long narrow Wooden tub, and cover it close with clothes. It will begin to work and ferment within three or four hours, and a thick foul scum will rise to the top. Skim it off as it riseth to any good head, and presently cover it again. Do this till no more great quantity of scum arise, which will be four or five times, or more. And by this means the Liquor will become clear, all the gross muddy parts rising up in scum to the top. When you find that the height of the working is past, and that it begins to go less, tun it into a barrel, letting it run again through a boulder, to keep out all the gross feculent substance. If you should let it stay before you tun it up, till the working were too much deaded, the wine would prove dead. Let it remain in the barrel close stopped, a month or five weeks. Then draw it into bottles, into each of which put a lump of fine Sugar, before you draw the wine into it, and stop them very close, and set them in a cold Cellar. You may drink them after three or four months. This wine is exceeding pleasant, strong, spiritful, and comfortable.

References

Bravery, H.E., *Successful Wine Making at Home*, Arc Books 1962 [out of print but still available at your library or from a used bookstore]

Buhner, Stephen Harrod, *Sacred and Herbal Healing Beers: The Secrets of Ancient Fermentation*, Boulder CO: Siris Books (Brewer Publications) 1998

Digby, Sir Kenelm, *The Closet of Sir Kenelm Digby Knight Opened*, ed by Anne MacDonell, London: Philip Lee Warner 1910
Digby, Sir Kenelm Digby

Websites

EagleSong at RavenCroft Garden,
EagleSong and her partner Sally King teach classes at their garden, offer herbal tours throughout the Northwest and sell herbal products online at
<http://www.ravencroftgarden.com/>

Wine Making with Jack Keller

I don't think I'd like Jack Keller (nor would he like me) but I really like his website which has references to lots of other resources for the home wine-maker. I'm starting you out with the page where he scoffs at making wine without chemicals

<http://winemaking.jackkeller.net/starting.asp>

but this leads quickly to more interesting pages like this on making wine with wild plants:
<http://winemaking.jackkeller.net/plants.asp>

Bonus Recipe: Rose Petal Wine

3 quarts rose petals
1 gallon water
3 lbs sugar
_ oz baker's yeast or 1 pkg wine yeast
2 lemons

Pour _ gallon of boiling water over the petals in a crock; cover well and leave for 48 hours, stirring often. Boil half the sugar in a quart of water for 2 minutes and when this is cool, add to the petal mixture and ferment for 3 days. Strain and wring out well and return the liquid to the crock and let it ferment for another 10 days. Pour the liquid into a gallon jar, leaving as much of the sediment behind as you can. Boil the rest of the sugar and water and when cool, add to the rest together with the juice of the lemons. Cover again or use a fermentation lock and leave till all fermentation has ceased.

From

http://earthnotes.tripod.com/winer_y.htm#rhubarb