

Brewers' Guild Newsletter

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*"A flask of wine alone amid the flowers,
No friend have I to keep me company,
But as I lift my cup, the moon peeps out.
It and my shadow make the party three."*

(Li Peh 622-762 AD)

**June Crown
A. S. XXXII**



Brewers' Guild Ranking System

DEFINITIONS:

Style - beer, wine, mead, cordial, or non-alcoholic beverage.

Public Service Work - teaching a workshop, submitting articles or art to newsletters, holding a contest or tasting, etc.

Proficiency - competency in a style, as judged by fellow brewers from a sampling of at least four different brews.

RANKINGS:

Apprentice - Anyone who wants to play and participate in the Brewers' Guild activities. (Is entitled to wear the Guild badge on a green field.)

Journeyman - Someone who is proficient in at least one style of brewing and has performed at least one public service work. (Is entitled to wear the Guild badge on a blue field.)

Craftsman - Someone who is proficient in at least two styles of brewing, and had performed at least three public service works. (Is entitled to wear the Guild badge on a red field.)

Master Brewer - To achieve this rank you must have attained the previous rank of Craftsman, be nominated by your fellow Craftsmen, and be approved by the other Master Brewers. (Is entitled to wear the Guild badge on a purple field.)

All members of the Guild are encouraged to donate bottles of their beverages to the Guild for use as "taxes" given to the reigning Royalty during court presentations. Brewers outside of the central Kingdom, or in the more distant regions of the Marches, may achieve awards up through Craftsman by participating in their local events. Such individuals should write to the Guild Master to inform him or her of their level of participation.

The Guild badge is as follows: "Fieldless, a laurel leaf Vert on a tun Or". The tun, as generally depicted, is a wooden barrel.

The Kingdom Brewer's Guild newsletter is an unofficial publication and is printed and published through donations and unofficial subscriptions. It is published at no cost to the Brewers' Guild or the SCA. Members who would like to have a newsletter mailed to their home (vice hoping to pick up a spare copy during Kingdom events) are welcome to donate \$ 5.00 per year to the Guild Chronicler. Both stamps and suitable coins of the realm will be gleefully accepted!

Upcoming Brewing Competitions: Enter Your Best Brews And Have Fun!

June Crown	Beer you <i>can</i> see through
Cynagua Summer Investiture	(TBD) <i>contact Josef for details</i>
Purgatorio	Non- and low-alcoholic beverages
Mists Fall Coronet	Beers - light <i>or</i> Octoberfest
October Crown	Unaged brews (less than 20 days start to drink), no forced carbonation!
Mists Fall Investiture	Soft Drinks - all types!
Twelfth Night	Spiced wine / cordials
Twelfth Night (Lochac)	(TBD)
Mists Spring Coronet	Anything with an unusual ingredient
Mists Spring Investiture	Cordials
Beltane (1998)	Open Period Brewing
June Crown (1998)	Distilling of scented waters (<i>not alcohol!</i>)

This is a rather unique BG newsletter... it does not contain *any* articles, recipes, or technical advice for any type of barley beverage! Instead, inside this edition are several articles on *sake*, cider, meads, and non-alcoholic beverages. Enjoy!

Sake (Duncan Saxthorpe of Alnwick)

Sakea no mizu, the "water of prosperity", is a rather unique alcoholic beverage produced from the combined actions of a common household mold (*Aspergillus oryzae globosus*) and brewers' yeast (*Saccharomyces cerevisiae*) on cooked rice. The resulting product can have a top alcohol content of up to 20 percent which far exceeds the highest possible alcohol content of naturally fermented wine, mead, or beer. However, most commercially made sakes are diluted with water down to 10 to 14 percent before bottling.

The Japanese have often copied ideas from their Chinese forbearers and sake is no exception. The Chinese have made a rice wine (*lao shou*) for many hundreds of years and perfected many of the basic techniques required to produce rice wine. But the Japanese greatly modified these borrowed techniques while developing their own brewing style during the 7th to 9th century AD. The resulting produce was the uniquely Japanese, multi-step technology that makes sake.

Sake is not a rice beer, nor a rice wine, but actually is the sole member of its style. While there are as many different types of sake (ranging from very dry through syrupy sweet, clear to cloudy, inexpensive to very dear) as there are types of wine, all can be produced with only minor variations in the three- to four-step brewing process. First the rice must be highly polished (tumbled to remove the bran) until at least 20 to 30% of the total rice grain has been removed. In fact, the highest quality *ginjio* sake can only be made from rice that has been polished until only 50% of each rice grain is left.

The rice is then washed and soaked in clean water for around 5 hours, well-drained, then steamed for about 20 minutes until it has reached a water content of 30 percent by weight. The cooked rice is then cooled to room temperature and then the brewer starts the *moto* (or mash) stage by adding a mold culture called *koji* (*Aspergillus oryzae globosus*) to the rice. This culture begins the conversion of the starch molecules to fermentable sugars. The *koji* slowly breaks down the starch while the yeast starts to make the alcohol. *Koji* also produces many different enzymes and compounds other than amylases (starch degrading enzymes) that contribute important flavoring characteristics to the finished product. This is why we modern brewers cannot make suitable sake using commercially-available amylase enzymes. The yeast is then added two days after the *moto* has been started and a total of 14 days is allowed to complete the initial conversion of the rice starches to fermentable sugars.

The next phase of the process is the *moromi*, or main fermentation, and includes three additions of more cooked rice (*hatsuzoe*, *nakazoe*, and *tomezoe*) during the first 4 days. This establishes an active fermentation and provides a large reservoir of available starches and sugars for the *koji* and yeast to act upon. After two or more weeks of *moromi* fermentation a fourth and final rice addition, the *yodan*, is often used to stabilize the sake and adjust the residual sugars (such as to produce a sweet sake). The main fermentation is finished after two to three weeks, the sake is strained off, the rice pressed (to extract all possible liquid), and a secondary fermentation under very cool temperature completes the ferment in another week or two. The sake is then filtered, Pasteurized at least twice and then bottled. (Sake, like beer and unlike most wines, does not appreciably improve with age and needs to be drunk within one year of being bottled.)

Interestingly, perhaps the most crucial component for making quality sake is the water, rather than the rice. In the Edo (18th-19th century) period of Japan's history the absolute best sake could only be made using well water from the city of Nada, known today



as Kobe. Nowhere else in Japan was the water as suitable as Nada for making sake and eventually the water (called *miyamizu*) was recognized as being essential for the manufacture of premium sake and was sold in large wooden casks for shipment to other sake breweries throughout the rest of Japan. The modern home brewer can approximate *miyamizu* by using distilled or reverse-osmosis purified water and adding Morton's Salt Substitute and some Epsom salts. But whatever water is used, it must be extremely low in *iron content* since that mineral in even tiny amounts will discolor and give off-flavors to the sake.

Before the advent of refrigeration sake could only be made during the fall and winter months, and the very best sake (*kan-zukuri*) was made in the coldest months where the fermentation progressed very slowly. (The concept is similar to making lager, where the slow, cold fermentation with cold aging produces a sparkling clear, cleanly flavored, lighter bodied, and highly prized product that cannot be made at even slightly higher temperatures.)

The home brewing of sake is certainly complicated but also possible with a little additional equipment beyond that normally needed for making beer. Also, all sake needs to be Pasteurized at 140° F for several minutes (either in a water bath or through a flash heating coil) both after the secondary ferment is finished and again after bottling. Pasteurization is necessary to neutralize the *koji* enzymes and kill any stray bacteria which might contaminate and ruin the sake. Also, the home sake brewer will need to obtain a culture of *koji* from a specialty brewing store. (In California, there are several sources, including: Miyako Oriental Foods, Inc., 4287 Baldwin Park, CA 91706, (818) 962-9633; G.E.M. Cultures, 30301 Sherwood Road, Ft. Bragg, CA 95437, (707) 964-2922; and Kushi Institute Store (800) 645-8744; and the Mutual Trading Company, 431 Crocker Street, Los Angeles, CA 90013, (213) 626-9458.) The sake yeast I have seen in Wyeast "smack-packs" at several brewing supply houses in our area and probably also can be obtained from one of the *koji* sources.

However, since the technique for making sake is complicated and beyond the scope of a short article such as this one, interested brewers are encouraged to purchase a good reference book on the topic. In my opinion, one of the best is *SAKE (U.S.A.)* by Fred Eckhardt and sells for about \$ 13.50 in most book stores. I also have seen it in my local library, so you might check with your own library.

One final note: sake is *never* drunk alone but rather is always to be consumed in the company of friends, business associates, and neighbors. So when you have made your first batch of sake, be prepared to share it with the rest of us!

Itadakimas domo arigato gozaimas. Okarada o odajini ni nasatte kudasai!

A Lemon Drink

(forwarded by Crystal of the Westermarck, original e-mail article written by Madrugada.)

This is called "A Lemon Drink" and the author dates it to the 19th century: "More refreshing than a dipper of water." This recipe was frequently found in the older cookbooks and was described as a good drink for the farmer's wife to carry out to the men in the field on a hot day.

4 lemons	4 pounds sugar
4 oz ground ginger root	1 cake compressed yeast
1 slice nut-brown toast	

Peel the lemon thinly, and cut into thin slices. Mix the sugar and ginger root together. Add to the lemon slices. Let stand for a few hours. Add the water and let stand until cool.

Set the yeast on the toast and float on the surface. Let stand from 4 to 6 hours, stirring frequently, remove the toast, and strain the liquid into sterilized bottles. Cork tightly and lay the bottles on their side for 12 hours. Store in a cool place. (*The Attic Cookbook*, Gertrude Wilkinson 1972; ISBN 014 061.610 1)

Comments: I'm guessing the something like zwieback would work for the nut-brown toast, since all it does is keep the yeast cake up out of the liquid. I have *no idea whatsoever* how much water to use. My guess is at least a couple of gallons, based on dissolving 4 pounds of sugar. I also have no idea how hot the water should be. Obviously, it *is* heated somewhat, since you're supposed to let it cool before you add the yeast.

It *is* yeasted, so it may actually be lightly alcoholic, but if it's what was taken to the farm workers in the field, I'd be surprised if it's any more alcoholic than, say, two- or three-day-old apple juice that wasn't under continual refrigeration.

Ginger Beer

from Elizabeth Fairweather

This excellent recipe will give you a never-ending supply of true ginger beer.
(*I've tasted it and it's wonderful! Duncan...*)

Starter

Take ½ ounce yeast (either baking or ale) and mix with 2 tsp ground ginger, 2 tsp sugar, and ¾ pint water in a glass container.

Over the next week, each day "feed" the starter with an additional 1 tsp each of ground ginger and sugar. After 7 days strain through several layers of cheese cloth.

Making the Ginger Beer

Dissolve 1½ pounds sugar in 2 pints hot water then add to 5 pints of cold water. Add the juice from 2 lemons. Mix in the liquid from the starter. *Return 3/4 pint of the mixture to your starter container and feed daily as before.* Bottle the rest in screw-top bottles or cap in beer bottles. Let carbonate for 1 week. Once well carbonated keep refrigerated.

Mead (Gwyn Chwith ap Llyr and Kemmon of the Mountains)

At the Cynaguan Investiture competition, a wonderful sweet mead was presented to the Brewers' Guild. It comes from Gwyn Chwith ap Llyr and Kemmon of the Mountains:

In one five gallon carboy, combine 4 ½ gallons of water, eighteen and 1/3 pounds of dark desert honey, the juices of one lemon and one orange, and on piece of ginger the size of a thumb, peeled and chopped. Ferment for three months with champagne yeast, rack to secondary, allow to finish ferment for one month, then bottle.

To Make Honey Drink* (forwarded by Crystal of the Westermark)

"Two quarts of water take one pound of Honey. When it boileth, skim it clean as long as any scum ariseth; boil it a pretty while; then take it off the fire, and put it in an earthen pot, and let it stand till the next day; then put it into clean bottles, that are thoroughly dry, rinsing first every bottle with a little of the liquor; Fill them not too full, and put into every bottle four or five cloves and four or five slices of ginger; and stop it up very close, and set it in the Sand; and within ten or twelve days it will be ready to drink."



*The Closet of the Eminentely Learned Sir Kenelme Digbie Kt. Opened:... Reprinted in A Collection of Medieval and Renaissance Cookbooks: First Compiled by Duke Cariadoc of the Bow and The Duchess Alena. Sixth Edition (1991) Volume One. page 84.

cider in their normal diet. And until the time of Prohibition (1918) there were many commercial cideries in the United States.

Quality apple cider is not particularly easy to make as the apples first must be crushed under a lot of pressure to extract the juice. Then if the fermentation proceeds too-rapidly it can produce a harsh, acidic cider that is quite unpleasant. However, good cider can be made by the home brewer, though it takes skill and careful sanitation if your end product is to be worth the effort. In a few months the local farms will be selling fresh apple juice, or your backyard trees will be ready for picking, so why not try your hand at making cider? The following recipes come from a number of sources, including *Zymurgy* (Summer 1997), an in-flight magazine, and my own experiments with making "hard cider" and cyser.

Making your own cider

One of the secrets to making high quality cider is choosing the right type of apples. A good blend of aromatic, sweet, and acidic types will produce a wonderfully spicy, well-balanced apple juice that, when fermented (with or without added spices or honey) results in a cider to be proud of. A mixture of aromatic, sweet, and acidic apples is useful for achieving a well balanced flavor, although the best cyser I ever tasted was made from all Jonathan apples.

If you are lucky enough to have access to an apple press and know a neighbor or two who have apples trees, you can make several gallons of juice from a even a relatively small apple tree. Commercially available fresh apple juice is quite nice but also tends to be prohibitively expensive as well. (The last cyser I made was from 4 gallons of juice and 15 pounds of honey, and probably cost me as much to make per finished 750 milliliter bottle as an inexpensive bottle of cabernet savignon.) And while frozen apple juice can be used (although some brands contain preservatives and while others do not), you probably should not use the bottled brands (e.g.: stored at room temperature) as these usually contain preservatives that will hinder or kill your yeast.

Equipment

Once you have a supply of apple juice (or pear, cherry, etc.), the equipment needed to make is minimal when compared to that necessary for making all-grain beer. A **glass carboy** (or gallon jugs) is needed as the acidity in the juice can leach off-flavors from plastic containers, also cider is extremely sensitive to the effects of oxidation so a glass fermenter is pretty much essential. An **airlock** is needed throughout the entire ferment as cider does not ferment as fast or furious beer and thus cannot produce enough CO₂ to "blanket" the fermenting juice in an open container. A **siphon** and about 4 feet of food-grade plastic **tubing** will be needed for transferring the finished cider to your sanitized wine (or other) bottles. Your **bottles** should be capable of being tightly sealed or corked and to store the

cider while it ages at least 3 to 6 months at "cellar" temperature, or about 50 to 56 degrees Fahrenheit. For example, a cyser that I made several years ago (A.S. XXVII) was alright at the 6 month point, quite good at one year, and the last bottle (drunk at 3 years of age) was simply the nectar of the gods!

Recipes

The following recipes are given for making **five gallons** of cider or cyser and can be scaled up or down with ease. For any of the basic recipes, spices can be added if you wish including cinnamon, coriander, cardamom, nutmeg (but be careful as too much causes bitterness), cloves, allspice, and even flower petals such as roses.

Sugar and Spice Cider (James Slaton, *Zymurgy* Summer 1997 Vol.20 No.2)

14 (12 ounce) cans of frozen Seneca apple juice concentrate
3 cups corn sugar 2 tsp cinnamon 1 tsp nutmeg
1 cup molasses (editor: make sure to use unsulfured style)
2 packets Champagne yeast 3¼ gallons water

1. Mix the ingredients together and bring to a slow boil. (Editor note: if you use a large yeast starter this step is probably not necessary. Boiling can darken the juice and remove the more delicate aromatics from the juice.) Cool and pour into a carboy, add the yeast, and then attach the airlock. The cider will ferment for several weeks.
2. When fermented completely flat, rack (siphon) into a clean, sanitized container and add ½ cup of corn sugar dissolved in ½ cup boiled water. Bottle in beer or champagne bottles and cap or cork well. Let carbonate at room temperature for several weeks and then store at cool temperatures.

(Another editor's note: be careful if you are using honey as this particular type of sugar tends to ferment very slowly with frequent stops and starts. Let any honey fermented beverage set for at least one month once all visible fermentation has ceased, and do not bottle unless the yeast has settled out and the cider is completely clear.)

Traditional Cider (Duncan Saxthorpe of Alnwick)

5 gallons apple (or other fruit) juice 4 cups corn sugar (or honey)
2 tsp yeast nutrient 1/4 cup strong black tea (or 1½ tsp grape tannin)
2 packets Montrachet (or chardonnay) wine yeast, dissolved in ½ cup of
boiled/cooled water with 2 Tbs. corn sugar and let set (in a sanitized 2 cup
container) for 4 hours to activate. (This gives you a healthy yeast starter.)
2 Tbs Sparkaloid powder

1. Mix the corn sugar or honey with 1 gallon of the juice until reasonably well dissolved. Then add the yeast nutrient and tea (or tannin) and pour into your sanitized fermenter. Add the remaining juice and the yeast starter and attach the airlock. Ferment at 55 to 60 F until finished, about 3 weeks.
2. Once clear, in another clean carboy place 2 Tbs "Sparkaloid" powder that has been hydrated (wetted) in 1/4 cup boiled water. Then rack the clear cider into this carboy and re-attach the airlock. In approximately two days the cider will be very clear. At this point bottle and cap/cork tightly. The cider is ready to drink after several weeks, but will age well for up to one year.

Cyser (Duncan Saxthorpe of Alnwick)

4 gallons fresh apple juice

15 pounds wild mountain honey (e.g.: the generic 5 pound jugs work just fine)

2 tsp yeast nutrient 1 Tbs grape tannin

2-3 packets Champagne yeast, activated as per the previous recipe.

1. Mix the first four ingredients together and pour into your carboy. Add the yeast starter and attach the airlock. The fermentation should start in a day or so, and will take maybe three *months* to complete at 55-60F, and should not be allowed to ferment at temperatures over 65F if at all possible. (You can place the carboy in a large plastic bucket or a spare bathtub and fill with tap water half-way up the side of the carboy. Then drape several old towels over the carboy into the water so that evaporative cooling can keep the carboy cooler than the air temperature, keeping the contents cooler by 5 to 10 degrees. Just re-wet the towels every morning. You can also add a small quantity of bleach to the cooling water if you want to keep it from getting little slimy over the next couple of months, or just change it every week.)
2. When completely fermented, rack carefully into another clean carboy to which you have added 2-3 Tbs hydrated Sparkaloid. As with the previous recipe, once this has settled out you should bottle tightly and let age in a cool dark place for at least 6 months.

Cranberry-Apple Cider

1½ to 2 bushels of ripe apples (to make 4½ gallons juice)

[if making your own, try to mix approximately 50% sweet, 25% acidic, and 25% aromatic types, such as Spartan, Jonathan, and Macintosh respectively]

1 tsp grape tannin powder (or make from 2 tea bags in 1/4 cup boiling water x 15 minutes)

2 tsp yeast nutrient
7½ pounds ripe cranberries or other berries
Montrachet yeast (e.g.: Red Star Montrachet) reconstituted
5 Campden tablets

5 cups corn sugar
3 cups corn sugar

1. Crush and press the apples (or, if you are running short on time, just buy 4½ gallons of fresh apple cider). Add the tannin and yeast nutrient. Then in 1 to 2 cups of juice dissolve 5 cups of the corn sugar and mix with the rest of the juice. The starting gravity (SG) should be somewhere around 1.070, if not add more corn sugar until it is. Pour the juice into a glass carboy or ceramic crock and add the yeast starter. Fit with either an air lock (or cover the top with a sheet of plastic wrap) and let the cider ferment for 1 week at 60-65F, which is the normal non-summer California garage temperature.
2. Boil the cranberries in just enough water to cover until they break apart. Let cool somewhat and then strain through several layers of cheese cloth that has been sanitized in boiling water. Press well to extract as much juice as possible. Add the remaining 3 cups of corn sugar and stir until dissolved, then add to the fermenting apple juice.
3. Let the mixture ferment at 50-55F (what you need now is a water bath and several old towels wrapped around your carboy) until the SG falls to 1.020. This may take several weeks but if the yeast is going well may be just a couple of days. Crush the Campden tablets finely and dissolve in a small amount of boiled water then pour into the carboy to "shock" the yeast. (Editor's note: a very few individuals are deathly allergic to sulfites in any food product, and Campden tablets *are* sulfite tablets. So when you use them it is a very good idea to make sure your bottle labels say that the cider contains sulfites.)
4. Rack (siphon) into clean and sanitized bottles (1 or 5 gallon size) and fit with air locks. Let the fermentation continue at 30-35F (inside a refrigerator) for about 4 months, and when the fermentation stops (around SG 1.005) and the cider is completely clear, gently rack back into your carboy/crock to which you have added ½ cup of corn sugar dissolved in ½ cup boiling water. Siphon into champagne bottles (or beer bottles), cap, and let carbonate at room temperature for 3 weeks.
5. Refrigerate and let age at least 3 months. Drink chilled. Ciao!

Rose Syrup adapted from *The 'Libre de Diversis Medicinis' in the Thornton Manuscript (MS. Lincoln Cathedral, A.5.2)*. (Crystal of the Westermarck)

2 cups water	4 ounces fresh edible rose petals
1 tablespoon rose hips	4 ounces sugar
1 teaspoon rose-flavor extract	

Find organically grown, edible roses. Remove the petals from the stems and cut off the bitter white part at the base of each petal. Bring the water to a boil, remove from heat. Add rose petals and rose hips and allow to soak overnight. Strain through cheesecloth to remove all rose parts. Squeeze out the rose parts to get all the flavor possible. Put the fluid back into the pot and add sugar and rose-flavored extract. Stir to make sure all sugar is dissolved. Simmer over low heat for several hours until it is reduced to about one cup. Bottle. When ready to drink, dilute about one part syrup to three parts water. - You may use dried rose petals, available by at some health food stores.



Stepponi

(adapted from *The Closet of the Eminently Learned Sir Kenelme Digbie Kt. Opened: Whereby is Discovered Several ways for making of Metheglin, Sider, Cherry-Wine, &c. together with Excellent Directions for Cookery: As also for Preferving, Canferving, Candyng, &c. Published by his Son's Consent*) (Crystal of the Westermarck)

1 pound of seedless raisins	½ pound of sugar
2 lemons	water to one gallon

Remove the zest from the lemons and squeeze all the juice from them. Place the raisins, sugar, zest and lemon juice in a large bowl that will not crack when the boiling water is added. Boil one gallon (less one pint) of water. Pour the boiling water over the sugar, raisins and lemon. Allow the solution to cool. Strain and pour into sanitized bottles. Store in a cool place.

Editor's note: I am still looking for an assistant who can help with producing these quarterly newsletters and then take over as publisher when they feel ready to do so. The individual(s) needs to have an IBM computer, a good printer, and either WordPerfect or MS Word. Please contact Duncan at (707) 427-2302 or <saxthorpe@aol.com> if you are interested!

WANTED

Art work, articles, and cover pages for the newsletter. Articles and work should be represent the brewing arts or period vine/honey/barley/hops agriculture in some way. Ideas for cover pages can be discussed with Duncan or Crystal and the actual artwork should be submitted to the Brewers' Guild Chronicler by one month prior to the quarterly issue it is intended for.

Brewers' Guild Leadership

Head of the Guild

Crystal of the Westermark (Crystal A. Isaac)

No peeking!

Cynaguan Representative

Josef zum Murmeltier (Robert Hambrick)

No peeking!

Mists Representative

Peyre de Barat (Leon Baradat)

No peeking!

Chronicler for the Guild

Duncan Saxthorpe of Alnwick (Bruce Ross)

No peeking!

No phone calls after 9 PM, please...

This newsletter is an unofficial publication prepared by and for the member of the Brewers' Guild of the Kingdom of the West. The articles, opinions, and recipes published herein are strictly the responsibility of their authors and not of the SCA or the Kingdom of the West. (Now that the lawyers are happy... relax and have a home brew!)